Oregon Institute of Technology

2025-2026 Catalog

Welcome to Oregon Tech

Welcome to Oregon Tech! You have chosen a university that will challenge you, excite you, and provide many opportunities for you to learn, innovate and grow in a unique polytechnic university environment. Oregon Tech graduates are known for their ability to excel immediately in their careers as well as in graduate and professional schools.

The small class size and hands-on, applied approach to education at Oregon Tech is perfectly tailored to an experiential learning environment that encourages communication, collaboration, and engaging in professional practice. Oregon Tech is focused on providing high value to students, and a high return on investment to our graduates, who excel across many industries and in-demand fields. Faculty members bring their real-world problem-solving experiences into the classroom, creating numerous opportunities for Oregon Tech students to gain professional experience outside the classroom through externships, internships, field work, cooperative programs, and capstone projects.

You have chosen rigor, quality, and relevance by attending Oregon Tech. You are now part of our focus on excellence, innovation, and professional preparation that has served Oregon Tech's graduates well and has continuously increased our reputation and rankings in Oregon, the Pacific Northwest, and nationally. Welcome to the Oregon Tech Family – we're glad you're here and we very much look forward to helping you achieve your own personal and professional success.

Welcome to Oregon Tech

About Oregon Tech

For 75 years, Oregon Institute of Technology (Oregon Tech) has focused on changing students' lives by preparing them to meet the technology, innovation and management needs of industry. Oregon Tech is accredited by the Northwest Commission on Colleges and Universities, and individual programs are also accredited by the appropriate professional organizations. Today, Oregon Tech offers more than 44 bachelor's and master's degree programs in engineering, technology, health technologies, management, communication and the applied sciences. These include a growing number of bachelor's degrees and degree-completion programs offered online, and bachelor's and master's degree programs that can be entirely completed at Oregon Tech's Portland-Metro campus in Wilsonville.

With a mission to deliver professionally-focused education throughout the Pacific Northwest and to students from other parts of the country and world, we partner with industry leaders to ensure our programs adapt to ever-changing technologies and workforce demands. Year after year, our graduates garner the highest starting salaries in Oregon and among the highest in the nation.

Our applied approach to teaching, which blends theory and practice, is the main reason our graduates and alumni are so avidly recruited. Oregon Tech students have unique opportunities to apply what they learn in lab-based classes, clinics, externships and workplaces, as well as in clubs and special activities. Oregon Tech's faculty and staff, who come to Oregon Tech with relevant industry experience, reinforce this practical focus in the classroom. And in every program, a relevant interdisciplinary core underscores major studies, broadening students' understanding of the world and teaching them to communicate effectively, solve problems, and think for themselves. This student-focused approach to teaching and learning engages students in professional practice throughout their time at Oregon Tech.

Accreditation

Oregon Tech is accredited by the Northwest Commission on Colleges and Universities (NWCCU), 8060 165th Avenue, N.E., Suite 100, Redmond, WA 98052-3981. NWCCU is an institutional accrediting body recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education. Accreditation, licensure or approval of individual programs are listed in departmental sections. Copies of accreditation documents are available in the Office of the Vice President for Academic Affairs/Provost, Oregon Tech, 3201 Campus Dr., Klamath Falls, OR 97601-8801.

One Oregon Tech, Three Primary Campuses, and Program-Specific Sites

Oregon Tech is one institution with multiple locations. Established in 1947, Oregon Tech offers bachelor's and master's degree programs throughout Oregon and beyond to meet the needs of students seeking a top quality, professionally-focused education.

Oregon Tech's residential campus is located in **Klamath Falls** in beautiful Southern Oregon, and is nestled on the eastern slope of the Cascade Mountains. The 190-acre campus offers spectacular views of Upper Klamath Lake, pine-studded knolls and snow-capped peaks from nearly every building. Klamath Falls, a city of about 22,000 residents (69,000 in Klamath County), is located about 20 miles north of the California border and in the same county that boasts Crater Lake National Park. Known as Oregon's "City of Sunshine," Klamath Falls enjoys about 300 days of blue skies each year.

Oregon Tech's **Portland-Metro** campus in Wilsonville, located just south of Portland, offers 21 bachelor's and master's degree programs in a state-of-the-art facility designed to provide an industry-focused, urban university experience in the heart of Oregon's "Silicon Forest". The campus offers high-demand degree programs, and is easily accessible to students of all ages and backgrounds, including business professionals, transfer students and new first-year students just out of high school. Oregon Tech provides excellent opportunities for students seeking internships and employment while completing their degrees.

Oregon Tech also offers a growing number of **Online** programs for working professionals or returning students who are busy and ready to advance their education as quickly and conveniently as possible. Oregon Tech Online allows students to finish certificates, associate, or bachelor's degrees without leaving home or the office, and without the hassles of travel, childcare or giving up their current job. The primary mission of Oregon Tech Online is to offer convenient programs and courses to both students seeking a degree, and those wishing to skill-up by taking just a course or two.

Oregon Tech also offers a bachelor's program in dental hygiene in **Salem** through a partnership with Chemeketa Community College. The classrooms and Dental Hygiene Clinic are located in Chemeketa's new, state-of-the-art Health & Sciences complex. Before acceptance, the program requires one year of prerequisite (pre-dental hygiene) coursework.

Oregon Tech **Seattle** offers a Bachelor of Science in Manufacturing Engineering Technology, Mechanical Engineering, or Mechanical Engineering Technology and a Master of Science in Manufacturing Engineering Technology to Boeing employees at sites in the Puget Sound area. Also offered are review classes for the Society of Manufacturing Engineers' CMfgT and CMfgE exams and three certificate programs.

Oregon Tech is accredited by the Northwest Commission on Colleges and Universities. Additional accreditations, licensure and approvals of individual programs are listed in the appropriate program sections of this catalog. Copies of accreditation documents are available in the Office of the Vice President for Academic Affairs/Provost, Oregon Institute of Technology, 3201 Campus Dr., Klamath Falls, OR 97601-8801.

Oregon Tech Online is an approved institutional participant in the National Council for State Authorization Reciprocity Agreements (NC-SARA) initiative, which allows for increased access to online courses for many out-of -state students. Oregon Tech Online is authorized by the Washington Student Achievement Council and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree-Granting Institutions Act. This authorization is subject to periodic review and authorizes Oregon Institute of Technology to offer field placement components for specific degree programs. The council may be contacted for a list of currently authorized programs. Authorization by the council does not carry with it an endorsement by the council of the institution or its programs. Any person desiring information about the requirements of the act or the applicability of those requirements to the institution may contact the council at P.O. Box 43430, Olympia, WA 98504-3430.

Welcome to Oregon Tech

History at a Glance

1947 –	July 14, under the direction of first president, Winston Purvine, the first classes at Oregon Vocational School were held in a deactivated World War II Marine Corps hospital three miles northeast of Klamath Falls.
1948 –	In a vote by the State Board of Education, the University's name was changed to Oregon Technical Institute – also known as OTI or Oregon Tech.
1950 –	KTEC radio went on the air, broadcasting from Oregon Tech's campus.
1953 –	Associate degree programs in Surveying and Structural Engineering Technologies were first accredited by the Engineers' Council for Professional Development.
1956 –	KOTI television opened and went operational on campus.
1957 –	Oregon Tech was made a separate division of the State Board of Education and an engineering study was begun to determine whether to repair or rebuild the facilities.
1960 –	Oregon Tech was transferred to the jurisdiction of the State Board of Higher Education.
1962 –	Oregon Tech was accredited by the Northwest Association of Secondary and Higher Schools.
1964 –	Oregon Tech moved to its newly constructed campus on a geothermal site overlooking Upper Klamath Lake.
1966 –	Oregon Tech received authorization to grant bachelor's degrees.
1970 –	Bachelor's degree programs first accredited by ABET.
1973 –	OTI name changed to Oregon Institute of Technology or OIT; Oregon Tech continues in use as well.
1975 –	Geo-Heat Center established.
1976 –	Kenneth Light appointed second President of Oregon Tech upon Purvine's retirement.
1983 –	Larry Blake appointed third President of Oregon Tech. Metro Center established in Portland to offer in-demand degrees.
1984 –	Small Business Development Center established.
1988 –	Portland Metro Center moved to its first permanent facilities on Southeast Harmony Road in Clackamas.
1989 –	State Board of Higher Education authorized Oregon Tech to grant master's degrees.
1991 –	Lawrence J. Wolf appointed fourth President of Oregon Tech.
1995 –	First master's degree offered.
1997 –	First online degrees offered.
1998 –	Martha Anne Dow appointed fifth President of Oregon Tech.
2001 –	Oregon Renewable Energy Center (OREC) established in law by the Oregon legislature.
2005 –	Oregon Center for Health Professions established.
2008 –	Christopher G. Maples appointedsixth President of Oregon Tech. Martha Anne Dow Center for Health Professions opens.
2012 –	Oregon Tech's Portland-Metro presence expands with the opening of the Portland-Metro Campus in Wilsonville, and broadens degree options.

2015 –	Oregon Institute of Technology became an independent public body governed by its own Board of Trustees.
2017 –	Nagi G. Naganathan appointed seventh President of Oregon Tech.
2017	Oregon Manufacturing Innovation Research and Development (OMIC R&D) established.
2017–	Soccer field renovation completed.
2018–	Behavior Improvement Group Applied Behavior Analysis (BIG ABA) clinic in Klamath Falls established.
2018–	Renovations of the softball field and stadium began. The John and Lois Stilwell Stadium completed in fall 2018.
2019-	Cornett Hall remodel completed.
2020-	Renovation of the athletics facility and Rec Center completed.
2021-	Oregon Tech Executive Think Tank established.
2021–	Renovation of Track and Field began.
2021–	Honorable Governor Kate Brown signed House Bill 2472A into law, granting Oregon Tech official designation as Oregon's Polytechnic University.
2021–	Oregon Tech Foundation surpasses $10 million in scholarships awarded since Foundation developed.
2022–	Construction of the Center for Excellence in Engineering and Technology (CEET) completed, and first classes were held in winter 2022.
2022–	Remodel of Boivin Hall began.
2022-	Oregon Tech launches 75th anniversary celebrations.
2022-	Oregon Tech offers in-state tuition for all Native American students.
2022-	The Boeing Company and Oregon Tech announce new Collaboration Lab in Klamath Falls.

Welcome to Oregon Tech

University Mission

Mission Statement

Oregon Institute of Technology ("Oregon Tech"), Oregon's Polytechnic University, offers innovative, professionally-focused undergraduate and graduate degree programs in the areas of engineering, health, business, technology, and applied arts and sciences. To foster student and graduate success, the university provides a hands-on, project-based learning environment and emphasizes innovation, scholarship, and applied research. With a commitment to diversity and leadership development, Oregon Tech offers statewide educational opportunities and technical expertise to meet current and emerging needs of Oregonians as well as other national and international constituents.

Vision

Oregon Tech will be a student-centered, world-class polytechnic university that inspires students to become tomorrow's leaders.

Institutional Student Learning Outcomes

Institutional Learning Outcomes (ISLOs), also referred to as Oregon Tech's Essential Student Learning Outcomes (ESLOs), support Oregon Tech's institutional mission and are in alignment with the Northwest Commission on Colleges and Universities (NWCCU) standards.

The ESLOs reflect the common expectations about the general knowledge, skills, and abilities that all Oregon Tech graduates will acquire by graduation regardless of degree program. They define the Oregon Tech learning experience that lay the foundation upon which each major program builds. The ESLOs may be achieved in many ways depending on the unique curriculum of each degree program, supporting graduates in developing habits of mind and behaviors of professionals and lifelong learners.

Oregon Tech Student Learning Outcomes:

Communication, Teamwork and Ethical Reasoning

Oregon Tech graduates will:

- communicate effectively orally and in writing
- collaborate effectively in teams or groups, working to accomplish group tasks and resolve conflict within groups and teams; and
- recognize decisions requiring ethical judgments, determine potential reasonable courses of action, and select the course of action best supported.

Diverse Perspectives

Oregon Tech graduates will demonstrate:

- an ability to identify and explain diverse perspectives which requires the self-awareness, intellectual flexibility, and broad knowledge that enables perception of the world through the eyes of others. This includes perspective of diverse cultures and personalities, with consideration of varied places, histories, and technologies.
- cultural sensitivity through the knowledge, awareness, and acceptance of other cultures, along with awareness of differences without promoting hierarchy within those differences
- global awareness through ability to view the world from a global perspective, competently and perceptively navigate the challenges and opportunities of a globalized world, demonstrate willingness to suspend own cultural biases to appreciate multiple global perspectives, and identify and appreciate the relevance of historical, demographic, social, cultural, political, economic, and/or environmental factors to a global issue(s).

Inquiry and Analysis

Oregon Tech graduates will demonstrate an ability to:

- analyze and explain how they process cognitively toward a goal when the problem solver does not initially know a solution method.
- maintain information literacy, identifying when information is needed and having the ability to locate, evaluate, and use the needed information ethically and effectively.
- identify and explain critical analysis of the problem/question/issue; recognize stakeholders and contexts; identify and evaluate assumptions; identify and evaluate evidence; formulate personal responses and/or acknowledge other perspectives, and identify and evaluate implications, conclusions, and consequences.
- analyze and explain logical thinking skills through logical extrapolation, reflecting an informed evaluation and ability to place substantial evidence and perspectives in priority order that lead to a conclusion or other outcome.
- appropriately extract, interpret, evaluate, construct, communicate, quantitative literacy and reasoning skills by applying quantitative information and methods to solve problems, evaluate claims, and apply and analyze quantitative data.
- analyze and explain inquiry and analysis skills which consists of posing meaningful questions about situations and systems, gathering and evaluating relevant evidence, and articulating how that the evidence justifies decisions and contributes to students' understanding of how the world works.

Welcome to Oregon Tech

Non-Discrimination Policy

Oregon Tech does not discriminate on the basis of race, color, ethnicity, national origin, gender, disability, age, religion, marital status, sexual orientation or gender identity in its programs and activities. The following individuals are designated to handle inquiries and complaints regarding this non-discrimination policy: Civil Rights Officer, Title IX Coordinator (sex-based and gender-based discrimination) (541) 885-1108; email: oithr@oit.edu.

Students with Disabilities

Oregon Tech is committed to accommodating the academic and programmatic needs of qualified students with disabilities. Students with disabilities who anticipate needing accommodations should contact Disability Services, LRC 229C, as soon as possible in advance of enrollment, to ensure timely provision of services. Questions may be directed to: Disability Services, Oregon Tech, 3201 Campus Dr., Klamath Falls, OR 97601-8801. (541) 851-5227.

Alternate Format

This publication is available in an alternate format for persons with disabilities. Please contact Disability Services at (541) 851-5227.

General Catalog Production

The 2024-25 General Catalog was produced by the Registrar's Office. Information in this catalog was accurate at the time of publication, but is subject to change without notice and does not constitute a contract between Oregon Tech and the student or applicant. The general catalog is published annually and available on the web at www.oit.edu.

Admissions

Office of Admissions

Klamath Falls, College Union, 1st Floor
800-422-2017 (toll free)
(541) 885-1150
(541) 885-1024 (fax)
oit@oit.edu
www.oit.edu/admissions

The Oregon Tech Admissions Office is located on the first floor of the College Union on the Klamath Falls campus. Open weekdays from 8 am to 5 pm, its primary functions are to help prospective students investigate and evaluate Oregon Tech, to manage applications for admission and to assist applicants with the enrollment process. The Admissions Office operates with the cooperation and support of the entire campus community. Admissions welcomes visiting students and their families for daily tours, and sessions with admissions counselors, coaches, and other staff. Oregon Tech hosts several campus preview events and admitted students events annually. For event dates or to register for an event, please visit www.oit.edu/visit or call (541) 885-1150 or (800) 422-2017. For the hearing impaired please call the TTY number (541) 885-1072.

Admission requirements apply to all applicants of Oregon Tech. All students who wish to enroll in more than eight credits in a term, receive financial aid and/or graduate from Oregon Tech must apply and be accepted for admission. Applications for general admission are processed on the Klamath Falls campus regardless of the campus location for the student.

Admissions

Applying to Oregon Tech

Application Deadlines

The priority application deadline for maximum scholarship and financial aid consideration each fall term is March 1. Oregon Tech accepts applications on a rolling basis, but students must have a complete application on file in Admissions three weeks prior to the first day of classes as follows:

2023-24	**Application Deadlines**
Fall Term	September 6, 2023
Winter Term	December 18, 2023
Spring Term	March 11, 2024
Summer Term	June 3, 2024
2024-2025	**Application Deadlines**
Fall Term	September 4, 2024
Winter Term	December 16, 2024
Spring Term	March 10, 2025
Summer Term	June 2, 2025

Applications

Applications for admission are available online at www.oit.edu/apply. A complete application consists of an application for admission, application fee, official transcripts, and other required documentation depending on the type of applicant (see Admission Eligibility Requirements).

Students who were previously enrolled but have stopped out more than four terms must submit an application for re-admission. Previously admitted students that did not enroll need to submit a new application.

Students who have not yet registered for classes who wish to change their entry term, major, or campus can do so by contacting the Admissions Office at oit@oit.edu or 541-885-1150.

Students who wish to take eight credits or less per term may submit a non-degree seeking student application. Alternatively, students may submit the appropriate first-year or transfer application and enroll part time. Please note, non-degree seeking students are ineligible for financial aid.

International students must complete an application for admission at www.oit.edu/apply. International students seeking enrollment through an approved exchange program must complete the International Exchange Application. For more information about Oregon Tech's international exchange program please go to www.oit.edu/international.

The following majors require a secondary application process after students are granted general admission to Oregon Tech.

- Medical Laboratory Science (OHSU/Portland-Metro)
- Diagnostic Medical Sonography

- Dental Hygiene (Klamath Falls, Salem)
- Echocardiography
- Nuclear Medicine and Molecular Imaging Technology
- Nursing (with OHSU/Klamath Falls)
- Paramedic/EMT (OHSU/Portland-Metro)
- Radiologic Science
- Respiratory Care
- Vascular Technology

Each program has its own application process, requirements, and deadlines. Details are outlined on the departmental pages of this catalog.

Application Procedures

Every applicant must complete the following steps to be considered for Admission to Oregon Tech:

All offers of admission are contingent upon submission of satisfactory final official transcripts prior to enrollment

1. Complete the appropriate application found at www.oit.edu/apply or, for first year freshman applicants only, at commonapp.org.
2. Pay the $50 non-refundable application fee. Some students may qualify for an application fee waiver. Please visit www.oit.edu/apply for more information.
3. First year applicants do not need to submit official high school transcripts when submitting application but will be required to provide an official high school transcript upon graduating from high school, and before enrolling at Oregon Tech. GED students will need to submit official GED test results.
4. Transfer students need to send official transcripts from all post-secondary instittutions attended or received credit from if applying as a transfer student. A final high school transcript is required unleass a student has a conferred degree, or has earned 60 semester credits or 72 quarter credits from a regionally-accredited college or university. High school transcripts will be used to evaluate a student for admission if the student has earned fewer than 24 semester credits of 36 quarter credits.

All official documents must be sent to the Oregon Tech Admissions Office and become property of Oregon Tech

Admission and registration may be cancelled if a student fails to submit required documentation in a complete and satisfactory order, or if a student, upon submitting final documentation, no longer meets admission requirements..

Some online degree completion programs have additional eligibility requirements. Please visit www.oit.edu/online/evf to determine your eligibility.

Some Oregon Tech programs do not have sufficient space to enroll all qualified applicants. Oregon Tech reserves the right to offer admission to the most qualified applicants on a first-come, first-served basis, or through a combination of these two strategies.

Not upon admission, but prior to registration, all students must have a complete health form showing adequate immunizations on file with the Student Health Center. For more information, please see the Student Health section of this catalog. Students enrolled in 6 credits or less per term are exempt.

Social Security Number Disclosure and Consent Statement

Students are requested to provide, **voluntarily**, a Social Security Number (SSN) to assist Oregon Tech in developing, validating, or administering predictive tests and assessments; administering student aid programs; improving instruction; internally identifying students; student parking; collecting student debts; or comparing student educational experiences with subsequent workforce experiences. By providing a Social Security Number, students consent to the uses identified above. This request is made pursuant to ORS 351.070 and 351.085. Provision of a Social Security Number and consent to its use is not required and, if a student chooses so, will not be denied any right, benefit or privilege provided. Applicants may enter a series of zeros (000-00-0000) on their admission application in place of their actual SSN. Students should be aware that by not providing their SSN they will not be eligible to receive federal student aid or some university scholarships.

Additionally, applicants should be aware that Oregon Tech is required to obtain a Social Security Number to file certain returns with the Internal Revenue Service (IRS) for the applicant to receive a 1098T and to furnish a statement. The returns that Oregon Tech must file contain information about qualified tuition and related expenses. Privacy Act Notice: Section 6109 of the Internal Revenue Code requires students to give a correct SSN to persons who must file information returns with the IRS to report certain information. The IRS uses the SSN for identification purposes and to help verify the accuracy of tax returns. For more information, refer to IRS code 6050S.

Admissions

Admissions Requirements

First-Year Admission

Effective 2023-2024, Oregon Tech will admit first year applicants based on an unweighted College-Preparatory GPA with no requirement to submit standardized test scores such as the ACT, SAT, AP, or IB. The college-prep GPA will be recalculated based upon 14 courses. Students may be deficient in no more than two subjects, unless the two subjects are combined in Math and Lab Science. While there is no minimum ACT or SAT score, nor are score submissions required for admission review, scores may be used to meet subject deficiencies and for placement purposes at the

time of enrollment. Deficiencies are subjects not taken or subjects in which a grade of D or F was earned. Repeat courses may be used to replace grades. Applicants older than 22 are exempt from the college-prep course requirements as well as students who have taken the GED. Merit-based scholarships awarded at the time of admission will use cumulative high school GPA.

For first-year admission, students must meet entrance requirements adopted by the State Board of Higher Education in Oregon. Applicants who are enrolled in or who have graduated from regionally accredited high schools must:

1. Report subjects and grades on the application. Unless requested to do so by the Admissions Office, please do not submit transcripts. An official, final high school transcript with the graduation date will be required before registering for classes.
2. Applicants must satisfactorily (grade of C- or above) complete at least 15 units (one year is equal to one unit) of college preparatory work in the following areas unless they graduated from high school prior to spring 1985. Applicants will be reviewed for admission on the following:

- English (4 units). Shall meet one of the following: four years of high school English (composition/literacy-based). Transferable three-credit or four-credit college English courses may be substituted, one for one, for one year of high school English .
- Mathematics (3 units). Shall meet one of the following: three years of high school math courses, including one year each of Algebra I, Geometry, and a third class that primarily focuses on concepts in algebra, calculus, data science, discrete mathematics, geometry, mathematical analysis, probability, or statistics. Prospective students are encouraged to take a fourth math course in their senior year of high school.Those intending to study a STEM (science, technology, engineering, or mathematics) major, or another field for which calculus is required, are strongly encouraged to take pre-calculus, and if possible, calculus, in high school.
- Social Science (2 units). Shall meet the following from: 2 years social science such as: Asian, African, European, Middle Eastern, United States history, world history, economics, sociology, geography, government, psychology, or anthropology. Transferable three-credit or four-credit college social science courses may be substitued, one for one, for one year of high school social science.
- Laboratory Science (3 units). Shall meet one of the following: three years of high school laboratory science (one year each of biology, chemistry, and earth science, or physics. An integrated science class may be substituted for one required course); Transferrable three-credit or four-credit college laboratory science courses may be substituted, one for one, for one year of high school science. An integrated science or advanced level science class may be substituted for one required course.
- Career and Technical Education or Fine Art (1 unit). One year or a two-semester combination of high school fine arts or Career and Technical Education (CTE) or one transferable three-credit or four-credit college fine arts course or CTE course.
- Academic Elective (1 unit). Shall meet one of the following: One year of high school courses such as computer science, STEM, engineering,second language, or other college prep-course that may fall within any of the above subjects.

3.Applicants who are applying based on GED scores must submit official GED test scores. A minimum overall score of 680 with scores of 170 or higher in each subject is required for admission. Special admission may be offered to those scoring no less than 150 on the Reasoning Through Language Arts and Social Studies test; no lower than 160 on the Science test; and no lower than 170 on the Mathematics Reasoning test. GED tests taken between 2002 and 2014 must have a minimum composite score of 500 with a minimum score of 410 in each subject. Tests taken prior to 2002 must have a minimum composite score of 50 with a minimum score of 41 in each subject. GED applicants can request official test scores from the Department of Education from the state in which the test was taken. Test scores must be sent to the Admissions Office.

Transfer Admission

A transfer student is one who has earned credits at another regionally accredited college or university after graduating from high school. A student must have earned at least 36 college-level credit hours (24 semester credits) to be admitted based solely on their college record. Students with fewer than 36 college-level credit hours (24 semester credits) will be reviewed on college and high school coursework.

1. Transfer applicants must have a cumulative 2.25 GPA or better in college level classes unless they hold an Oregon Transfer Module (OTM) or an associate or bachelor's degree, in which case, a cumulative GPA of 2.0 is required.
2. To be admitted to Oregon Tech, transfer applicants must demonstrate proficiency in English and Math by completing the equivalent of Math 95 (Intermediate Algebra) or higher and WRI 115 (Introduction to Writing) or higher with grades of "C-" or better. Special admission for students missing these courses will be granted at discretion of the Director of Admissions and/or the Admission's Committee.
3. Applicants who do not have an associate's or a bachelor's degree must have at least 36 college-level credits to be reviewed on college coursework alone. If more than 10 percent of an applicant's credits are in Physical Education, credits beyond the 10 percent threshold will not be counted toward meeting GPA requirements.
4. Applicants must be eligible to re-enroll in the previously attended institution(s).

Official transcripts from all post-secondary institutions must be submitted for consideration, as well as a high school transcript or GED for any students who do not have a conferred degree or who have not earned 60 semester credits or 72 quarter credits from a regionally accredited college or university..

Applicants who have earned fewer than 36 quarter or 24 semester hours of college-level work will be reviewed based on both high school and transfer GPA and subject requirements. Students who have completed fewer than 12 transferable quarter credits (8 semester) must meet freshman admission requirements. Students who have not completed 12 college credits must submit the first-year application for admission.

Acceptance of vocational/technical courses may be granted after registration if the student's administering department finds that vocational/technical courses have satisfied certain bachelor's degree requirements. In all cases, course and/or department prerequisites will be enforced.

The transferability of credits earned at Oregon Tech is at the discretion of the receiving college, university, or other educational institution. Students considering transferring to any institution should not assume that credits earned at Oregon Tech will be accepted by the receiving institution. Similarly, the ability of a degree, certificate, diploma, or other academic credential earned at Oregon Tech to satisfy an admission requirement of another institution is at the discretion of the receiving institution. Accreditation does not guarantee credentials or credits earned at Oregon Tech will be accepted by or transferred to another institution. To minimize the risk of having to repeat coursework, students should contact the receiving institution for evaluation and determination of transferability of credits and/or acceptability of degrees, diplomas, or certificates earned.

Transfer Articulation Agreements

Oregon Tech is dedicated to enhancing partnerships with regional community colleges. One important way of doing this is by forming articulation agreements. An articulation agreement is an officially approved agreement that matches coursework between schools. These agreements are designed to help students make a seamless transition when transferring to Oregon Tech. Articulation agreements give students a clear understanding of what courses will transfer to Oregon Tech and satisfy requirements for their major while minimizing overlap or repeat of courses. Some agreements accept an associate degree in its entirety while other agreements outline specific courses to take as a student plans for transfer. Students should inform the Admissions Office and their academic department advisor when they are utilizing an articulation agreement.

A list of articulation agreements can be found online at www.oit.edu/articulations; students may search by Oregon Tech major or by transfer institution. Questions regarding these agreements may be directed to the students' academic department or the Office of Academic Agreements.

Non-Degree Seeking Students

A non-degree seeking student may not enroll in more than eight credits per term at Oregon Tech at the graduate or undergraduate level, must not have been previously enrolled as a degree seeking student, and is not eligible for financial aid. Out-of-state residents are subject to non-resident tuition and fees if enrolling in more than 6 credits. A tuition and fee schedule can be viewed online at www.oit.edu/college-costs/tuition-fees. College-level classes taken as a non-degree seeking student may be used toward Oregon Tech graduation requirements upon completion of the admission process as a degree-seeking undergraduate or graduate student. Credits may be transferred to other institutions at the discretion of the receiving institution. Enrollment as a non-degree seeking student does not guarantee future admission to Oregon Tech. To enroll at Oregon Tech as a non-degree seeking student, submit the Non-Degree Seeking Application (www.oit.edu/apply) at least one week prior to enrollment. Oregon Tech reserves the right to deny enrollment to those who seek non-degree seeking status.

Admission to Programs with Clinical or Practicum Requirements

It is important that prospective students understand that admission to those programs that have clinical or practicum requirements:

1. Is selective.
2. Will be granted after consideration of an applicant's ability to assume professional responsibility for clients, patients or students served by the program; and may be denied to any student with a record of past criminal behavior or psychiatric illness, which bears upon the student's ability to fulfill clinical or practicum responsibilities.

Students seeking admission to online degree completion programs in Vascular Technology, Echocardiography, Diagnostic Medical Sonography, or Respiratory Care, must meet all regular admission requirements and be registered professionals working in their chosen field. This will ensure access to clinical sites as required in these programs. For more information, contact the Online Education Office.

International Student Admission

Oregon Tech welcomes international students as applicants and as vital members of our campus community. In addition to the application and $50 application fee, the following documents must be sent to the Admissions Office:

1. Official transcripts of all high school and post-high school institutions attended.
2. An official credential evaluation from an Oregon Tech-approved credential service for all coursework completed at a post-secondary institution outside the United States. Examples include the Educational Credential Evaluators, Inc. (www.ece.org) and World Education Services (www.wes.org). A comprehensive list of approved evaluation agencies can be found at https://www.oit.edu/admissions/international-students/transcripts.
3. Official English proficiency test scores from one listed:
    1. Test of English as a Foreign Language (TOEFL) with a minimum internet-based score of 68 if taking the internet-based exam (520 if paper-based test, or 190 if computer-based test)
    2. English Language Testing System exam (IELTS) with a minimum score of 6
    3. Duolingo English Test (www.englishtest.duolingo.com) with a minimum score of 95.
    4. Students may be excused from taking an English language proficiency exam if they have completed a level 112 course at an ESL Language Center, received a B or better in Writing 121 from a regionally accredited US college or university, or are from a country on Oregon Tech's list of exceptions. Please see the list of exceptions at https://www.oit.edu/admissions/international-students/english-language-proficiency.

4. A completed *Statement of Financial Responsibility* form, indicating the necessary financial resources in U.S. dollars to support yourself while enrolled. This form can be found at www.oit.edu/admissions/international-students/i20
5. A letter, if appropriate, from parents and/or sponsors indicating the amount of financial support they will provide in U.S. dollars.
6. Documentation showing that you, your parents and/or your sponsors have adequate financial resources to meet your expenses while enrolled at Oregon Tech. Examples include official bank statements, tax forms and letters of employment showing annual earnings.

A completed health history and immunization form must be submitted after admission but prior to registration. In addition to the health requirements that need to be fulfilled before registration; international students must have at least one documented MMR vaccine on file at the Integrated Student Health Center prior to the student attending any classes (per OAR 333-050-0130). Also, students from countries identified as high risk for tuberculosis (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe and Russia) are required to complete a TB screening upon entrance to Oregon Tech. This may include a TB skin test and/or a chest x-ray. This can be done at the Integrated Student Health Center if records are not available. Please refer to the Integrated Student Health Center section of this catalog for health history and immunization requirements and questions.

Exchange Student Admission

Oregon Tech welcomes exchange students through multiple exchange partnership agreements. Students at partner institutions work with an advisor at their "home" campus to meet the requirements of Oregon Tech's international exchange application process. It is recommended that exchange students begin the exchange application process at least nine months prior to the planned date of entry. This allows ample time for submission of documents that the U.S. Bureau of Citizenship and Immigration Services requires Oregon Tech to collect before we can issue the I-20 form used to secure a F-1 visa.

Admission Exceptions

The Admissions Committee and Director of Admissions retain the right to make exceptions to the specified requirements for admission or add stipulations to certain offers of admission. For additional information, contact the Director of Admissions.

Important Admissions Information for Military Connected Students

Per federal regulations Schools may not provide any commission, bonus, or other incentive payment based directly or indirectly upon success in securing enrollments or the award of financial aid to any individual or entity engaged in any recruiting or admission activities or in making decisions about awarding FSA program funds. The Admissions Department follows a policy that bans employees from receiving any incentives for recruiting or securing enrollment of any service members or any other student group.

The Admissions Department also refrains from any high-pressure recruitment tactics by any means (phone, email etc.) for securing enrollments of Veterans or any other student group. If a student receives emails or phone calls from us, they have the option to opt out of communications from us.

Before enrollment at Oregon Tech there are a few steps military connected students must take:

- Review the VA website and determine which educational benefits (programs/chapter) you are eligible for.
- Get admitted to Oregon Tech
- Receive approval from your ESO.
- Complete VA application
- Submit a Certificate of Eligibility (sent via mail VA application has been processed) to the campus-specific School Certifying Official.
- Once registered for classes, complete the Course Certification form

Per federal regulations a school must promptly readmit a service member with the same academic status as he had when last attended the school or was accepted for admission to the school. This requirement applies to any student who leaves school due to military service such as deployment, active duty etc.

Bring Your Own Device

Both the Klamath Falls and Portland-Metro campuses are now designated as Bring Your Own Device (BYOD) campuses. This allows students the flexibility to use Oregon Tech licensed applications on their own laptops rather than from stationary computers in computer labs. Investments have been made in remote technologies to give students the freedom to work with Oregon Tech applications from their own computer in class, outside of the class, on-campus or off-campus.

Registration

Registration events for new students occur prior to the start of each fall term. All students new to both the Klamath Falls and Portland Metro campuses must participate in a New Wings Registration event. Students will have the opportunity to meet with an advisor to plan their academic schedule, register for classes, set up Oregon Tech computer and email accounts, receive their university ID card and learn how to make a successful transition to Oregon Tech. Students are encouraged to attend an early registration event rather than waiting to register at the beginning of a term. Visit www.oit.edu/newwings or contact the Admissions Office at (541) 885-1150 or oit@oit.edu for more information. New students for winter, spring, and summer terms will be contacted by their advisor to schedule an advising and registration appointment prior to the start of term.

Placement Testing

Oregon Tech's Student Success Center (SSC) administers all placement testing. Student admission records are examined to determine placement requirements. Transfer students transferring in math credit for calculus or beyond, or who have transferrable college-level math within one year of matriculation, are exempt from the math placement requirement. Students entering a health program requiring Human Anatomy and Physiology with transferable college credit for this course are exempt from the entry assessment for the Human Anatomy and Physiology course sequence. Placement tests are available prior to the term of entry and in conjunction with new student registration. Visit www.oit.edu/newwings or contact (541) 885-1791 or testing@oit.edu for more information.

Admissions

Western Undergraduate Exchange (WUE)

WUE Eligible States and Programs

Students who are residents of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah, Washington, Wyoming, the Federal States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands are eligible for WUE tuition.

All majors in the College of Engineering, Technology and Management, and the College of Health, Arts and Sciences are eligible for WUE tuition apart from:

- Medical Laboratory Sciences (Pre-Medical Laboratory Science is eligible)
- Pre-Dental Hygiene and Dental Hygiene
- Pre-Medical Imaging Technology and Medical Imaging Technology (Diagnostic Medical Sonography, Echocardiography, Nuclear Medicine Technology, Radiologic Science, and Vascular Technology)
- Nursing after acceptance by Oregon Health & Sciences University (OHSU) (Pre-Nursing is eligible)
- Pre-Paramedic and Paramedic Education Program
- Oregon Tech Online Education Programs

First-year freshman WUE eligible students are eligible to receive Presidential Scholarships upon review of their application. Transfer WUE students are not eligible.

To maintain WUE eligibility, students must be seeking their first bachelor's degree and remain enrolled full-time throughout Fall, Winter, and Spring terms of the academic year. Summer term is not required to keep eligibility. Students must be enrolled in at least 12 credits per term and maintain satisfactory academic standing. If dually enrolled with Oregon Tech and a community college, 9 of the 12-credit minimum must be from Oregon Tech. GPA and completed credits are monitored each academic year for continued scholarship and WUE eligibility.

If a student wishes to 'stop-out' a term, a written request must be submitted to the Office of the Registrar before the start of the term. Requests are granted at the discretion of the university.

Admissions

Residency

Residency

In Oregon, as in all other states, tuition at publicly supported four-year universities is higher for non-resident students than for resident students.

The rules used in determining residency seek to ensure that only bona fide Oregon residents are assessed the resident fee. Please see www.oit.edu/registrar for the latest version of the residency policy.

Financial Aid

College Union, 1st Floor
Klamath Falls
(541) 885-1280
dollars@oit.edu
www.oit.edu/faid

The Financial Aid Office is committed to providing high-quality service to all Oregon Tech students, and their families. Our office strives to provide information on a complex topic that enables students to make decisions regarding their educational funding.

The information contained in this catalog is general in nature and is not meant to serve as notification of students' rights and responsibilities as financial aid recipients. Oregon Tech's Financial Aid Award Guide serves that purpose. The *Award Guide* is available on our website at www.oit.edu/faid. Additional questions regarding the FAFSA application process should be directed to the Financial Aid Office.

All students applying for federal financial aid must complete the *Free Application for Federal Student Aid* (FAFSA) available at studentaid.gov. A federally approved needs-analysis methodology is applied consistently to information provided by all applicants. The philosophy behind financial aid is that parents and students have the primary financial responsibility for funding the student's education.

If there are unusual financial circumstances that are not accurately reflected on the FAFSA, the student should contact the Financial Aid Office. Under certain conditions, professional judgment may be used and aid eligibility recalculated. The Financial Aid Office will always take the student's best interest into consideration while, at the same time, upholding federal regulations.

Estimated Financial-Aid Budgets for 2024-2025 Academic Year

Financial aid budgets can include amounts for tuition and fees, books and supplies, room and board, technology, and miscellaneous expenses. Please remember that these are **estimated average costs for students**, and student spending habits will vary. On a very limited, case-by-case basis, the Financial Aid Office may be able to adjust a student's budget as permitted by federal regulations.

Students with Disabilities

Under certain circumstances, a student's aid package may be adjusted to reflect additional expenses. Please contact the Financial Aid Office if you would like additional information or to schedule an appointment.

Financial Aid

Application Procedures

All students applying for federal and state aid must complete the *Free Application for Federal Student Aid* (FAFSA) and list Oregon Tech's school code (003211). We encourage you to file as soon as possible to be considered for your maximum eligibility. Some funds are very limited and are expended early.

Once the FAFSA information is received and reviewed by the Financial Aid Office, new students will receive a letter instructing them on how to log into "Tech Web" and their "Web for Student" to view their award notification and the federally mandated shopping sheet online. Students may accept their aid online and request changes. Returning students will receive an email to their Oregon Tech email account when their award notification is ready to view online. *After accepting aid students must log back in to web for student and answer the Title IV authorization questions (24 hours later).* The Financial Aid Award Guide is located on our website at www.oit.edu/faid. It is important that students read the guide and follow the instructions on the letter they are sent.

Any updates/changes to award notification letters will result in an email to the student's Oregon Tech email account. If additional information is requested, such as tax transcripts or worksheets, students should return the documents as soon as possible to receive a *Financial Aid notification letter* (email for returning students). The award notification letter will list all types of aid for which the student is eligible. The *Award Guide* is a detailed booklet explaining programs, disbursement procedures and student rights and responsibilities, as well as cost estimates and other miscellaneous information. It is the student's responsibility as a financial aid recipient to become familiar with the contents of the *Award Guide* and contact the Financial Aid Office if additional questions or concerns arise. Additionally, students should check their **Oregon Tech email accounts** for announcements and notifications from Financial Aid regularly.

The *FAFSA must be filed for each year* a student wishes to be considered for financial aid eligibility.

Consortium Agreement Information

In some cases Oregon Tech's Financial Aid Office will process a paper consortium agreement with another school in order to allow a student taking courses at another institution to receive aid from one school for all eligible classes. The school must be one with which Oregon Tech does not have a dual enrollment agreement. The institution that will be awarding the degree and awarding financial aid is defined as the "home institution"; the "host institution" is defined as the institution from which the student is taking additional courses. Consortiums must be submitted before the end of the second week of the term.

When Oregon Tech is serving as the "home institution," the following criteria must be met to have classes at a "host institution" apply toward financial aid:

1. The student must be fully admitted to one of Oregon Tech's degree-granting programs and eligible for financial aid.
2. The student must be enrolled at least half-time (6 credits) at Oregon Tech
3. The classes taken at the host institution must be 100-level or higher.
4. The classes at the host institution must apply toward the student's Oregon Tech degree.
5. The classes taken at the host institution must not be offered by Oregon Tech during the term of enrollment.
6. The paper consortium must be received within the first two weeks of the term.

It is the student's responsibility to ensure that both the "host" and the "home" institutions complete the appropriate consortium agreement. Consortium-agreement forms are available at www.oit.edu/college-costs/financial-aid/resources/forms. Students must provide Oregon Tech's Financial Aid Office with a final grade report from the "host institution" within 30 days of completing the course.

Dual Enrolled Students

Oregon Tech has formal dual enroll partnerships with multiple community colleges throughout the state. Please go online www.oit.edu/prospective-students/academic-agreements/dual-enrollment to view them.

Students who are dually enrolled may be able to combine credits at both schools for full-time enrollment. If Oregon Tech is the home school (giving aid) **the student must be enrolled in six credits at Oregon Tech**. Enrollment and grade information will be transmitted electronically. Credits at the host school need to be applicable to the Oregon Tech degree.

Financial Aid

Veteran Students

Located in the Financial Aid Office in Klamath Falls, and the Student Services Office in Portland-Metro, the VA School Certifying Officials process enrollment certifications through the Veterans Affairs Regional Processing Center for students receiving education benefits. Oregon Tech complies with the Veterans Access, Choice, and Accountability Act of 2014 ("Choice Act") requirements for covered individuals and PL 115-251, section 301 and the Johnny Isakson and David P. Roe, M.D. Veterans Health Care and Benefits Improvement Act of 2020 (P.L.116-315). These benefits allow **eligible** out-of-state veterans to receive in-state tuition rates.

Any student receiving VA education benefits while attending Oregon Tech is required to obtain transcripts from all previously attended schools and submit them to the school for review of prior credit. This includes, but is not limited to: Joint Services Transcripts (JST), Community College of the Air Force, Air University, ACE-approved credits, DANTES, CLEP, CCAS, Service Members Opportunity Credit, etc. Refer to the Military Credit section of our catalog for more details. Good standing is an additional VA requirement. Any student that falls below satisfactory progress for more than one term will lose all veteran benefits until academic standing is improved to good standing. Please see Academic Suspension Policy.

In compliance with the Veterans Benefits and Transition Act of 2018, section 3679 of title 38, Oregon Tech has the following policies in place to support "covered individuals" utilizing VA benefits.

Note: A "**Covered Individual**" is any individual who is entitled to educational assistance under Chapter 31, Vocational Rehabilitation and Employment (now referred to as Veteran Readiness and Employment), or chapter 33, Post-9/11 GI Bill Benefits.

Oregon Institute of Technology permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website –VA.gov, eBenefits, or a VAF 28-1905 form for Chapter 31 authorization purposes) and ending on the earlier of the following dates:

1. The date on which VA payment is made to the institution.

2. 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

Oregon Institute of Technology ensures that the university will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under Chapter 31 or 33.

Veterans and dependents receiving education benefits, and military members who submit appropriate documentation have priority registration in order to achieve timely program completion. Veterans and military members who are not receiving education benefits must submit a copy of one of the following pieces of documentation to receive priority registration:

US Armed Forces Active Duty Orders

DD214 under honorable or general conditions

For additional resources and information, please email veterans@oit.edu or visit https://www.oit.edu/college-costs/financial-aid/veterans

38 U.S.C. 3679(c). Veterans Access, Choice, and Accountability Act of 2014

A student is entitled to pay tuition and fees at Oregon Institute of Technology at the rates provided for Oregon residents without regard to the length of time the person has resided in this state if the student resides in this state while enrolled in the institution and the student:

1. Is receiving Chapter 30: Montgomery OR Chapter 33: Post-9/11 GI Bill® educational assistance; and
    - Enrolls within 3 years of discharge after serving 90 days or more on active duty; or
    - Anyone using transferred entitlement within 3 years of the transferor's discharge after serving 90 days or more on active duty; or
    - Surviving Spouses or Children under the Fry Scholarship who enroll within 3 years of an active duty Service member's death in the line of duty after serving 90 days or more; or
2. Students who remain continuously enrolled after initially meeting the requirements and are using Montgomery and Post-9/11 GI Bill® educational assistance.

Air Force ROTC

Portland Metro partners with the University of Portland to offer Air Force Reserve Officer Training Corps (AFROTC) to educate and train young men and women to become Officers in the United States Air Force or Space Force. You can pursue the degree of your choice at Oregon Institute of Technology – Portland Metro while simultaneously taking classes at the University of Portland to fulfill your AFROTC requirement. In this program, students will grow mentally and physically while acquiring the leadership skills to be successful commissioned officers. AFROTC is a three or four-year program for full-time undergraduate students where members participate in Aerospace Studies courses, leadership laboratory, and physical training. In the first two years of AFROTC, students are enrolled in the General Military Course; where they learn about the Air and Space Force heritage, values, and build a foundation of leadership and team building. The summer between sophomore and junior year, students will attend a two-week training and evaluation known as Field Training. Upon completion of Field Training, cadets enter the Professional Officer Course; where they enhance their leadership and communication skills in addition to learning about their role as a military officer in the Armed Forces. AFROTC offers a variety of scholarships that vary from high school and in college programs. Visit https://www.afrotc.com/scholarships for more information on scholarships and a list of the Air Force's highly desired majors. For further information about the academic program and cadet life visit the University of Portland AFROTC site https://www.up.edu/afrotc or contact the Aerospace Studies Program, University of Portland, 5000 N. Willamette Blvd., Portland, Oregon 97203-5798. rotc695@up.edu and (503) 943-7216 or toll free (800) 227-4568, ext. 7216.

AS 101 - Heritage and Values (1) Fall

AS 102 - Heritage and Values (1) Spring

AS 111 - Leadership Laboratory (2) Fall

AS 112 - Leadership Laboratory (2) Spring

AS 201 - Team and Leadership Fundamentals (1) Fall

AS 202 - Team and Leadership Fundamentals (1) Spring

AS 211 - Leadership Laboratory (2) Fall

AS 212 - Leadership Laboratory (2) Spring

AS 215 - Leadership Laboratory (2) Fall

AS 216 - Leadership Laboratory (2) Spring

AS 301 - Leading People and Effective Communication (3) Fall

AS 302 - Leading People and Effective Communication (3) Spring

AS 311 - Leadership Laboratory (2) Fall

AS 312 - Leadership Laboratory (2) Spring

AS 401 - National Security/Leadership Responsibilities/Commissioning Preparation (3) Fall

AS 402 - National Security/Leadership Responsibilities/Commissioning Preparation (3) Spring

AS 411 - Leadership Laboratory (2) Fall

AS 412 - Leadership Laboratory (2) Spring

AS 415 - Leadership Laboratory (2) Fall

AS 416 - Leadership Laboratory (2) Spring

Financial Aid

Types of Aid

All federal and state programs are need-based with the exception of the Unsubsidized Stafford Loan, Graduate PLUS Loan and the Parent Loan for Undergraduate Students (PLUS). Students receiving federal aid are allowed to receive at maximum, the cost of attendance as determined by the Financial Aid Office through all aid programs, including outside benefits such as third-party payments. Individual financial-aid packages will vary based on determined cost of attendance, expected family contributions and outside resources.

Federal Pell Grants

The estimated maximum annual Pell Grant for **2024-2025 is $7,395**. Students may receive Pell Grants for less than full-time, but the grant will be prorated accordingly. Pell Grant eligibility is limited to those students who have not yet obtained a bachelor's degree or reached the lifetime limit of 600%. All students will be considered for Pell Grant eligibility if they file a FAFSA. Awards are granted based on the federally calculated expected family contribution (EFC).

Oregon Opportunity Grant

The annual Oregon Opportunity Grant award for 2023-2024 was up to a maximum of $7,524. This grant program provides funding to Oregon residents in undergraduate programs attending Oregon schools. The Oregon Opportunity Grant is awarded by the Office of Student Access and Completion. Students not enrolled full-time (at least 12 credits) **may be** eligible for a prorated part-time award if attending half-time. By filing a FAFSA, students are applying for this grant. Funds are available on a first come, first-served basis and are limited. A student can receive an Oregon Opportunity Grant for a maximum of 12 terms. More information is available at www.oregonstudentaid.gov.

Federal Supplemental Educational Opportunity Grants (SEOG)

SEOG funds are very limited at Oregon Tech, although priority for SEOG funds is given to zero EFC students. The typical award is $600 for an academic year. Only students who have not yet completed a bachelor's degree and are eligible to receive a Pell Grant will be considered for this grant.

Federal Work-Study Program

The Federal Work-Study Program allows students to earn money by working part-time on campus or at an off-campus community service site. Information regarding available jobs and application procedures are located in the Career Services Office and on the Oregon Tech website. Awards are usually $2,500 per year, which can be earned at any time during the academic year provided the student is enrolled at least half-time. Awards can be increased, if needed, and if money is remaining.

Direct Lending

Federal Stafford Loans (subsidized and unsubsidized) are available to most students through the federal government Direct Loan Program. Loan amounts vary based on student need and grade level in a declared major at Oregon Tech. A fee for guarantee and origination will be taken at the time of disbursement. Contact the Oregon Tech Financial Aid Office for current interest rates. The interest rates for 2023-2024 was 5.50%. The difference between a subsidized and an unsubsidized loan is that the federal government pays the interest on subsidized loans while the student is in school. Students who wish to borrow through the unsubsidized loan program should remember that interest is accruing on the loan. Interest payments can be made while in school and during the grace period, but are not required. The loans go into repayment 6 months after the student no loner attends school in at least 6 or more credits. Any interest that has accrued at the time of repayment will be capitalized. Students must complete entrance counseling and fill out a promissory note before funds will be disbursed. To complete these items go to www.studentaid.gov.

Matthews Loan, YATES Loan, and Oregon Tech Long Term Loan

The Matthews Loan, YATES Loan, and Oregon Tech Long Term Loan are loans offered by Oregon Institute of Technology. These institutional loans offer no origination fee, and repayment begins six months (Matthews Loan, and YATES Loan), and nine months (Oregon Tech Long Term Loan) after students cease to be enrolled at least half-time. The interest rates for the Matthew Loan and Oregon Tech Long Term Loan is 5% and the interest rate for YATES Loan is 4%.

Students must complete a promissory note to receive the funds.

Federal Parent Loans for Undergraduate Students (PLUS)

Parents of dependent students can apply for funds through Parent Loans for undergraduate students. These loans are available for up to the cost of attendance minus other financial aid and resources each year. Interest begins to accrue immediately. The interest rate for 2023-2024 was 8.05%. An origination and guarantee fee will be taken at the time of each disbursement. Loan repayment begins 60 days after the final disbursement of the academic year. If you're a parent PLUS borrower, you can defer repayment of Direct PLUS Loans while the student for whom you obtained the loan is enrolled at least half-time, and for an additional 6 months after the student graduates or drops below half-time enrollment (half-time enrollment status is determined by your child's school). You must separately request each deferment period. This can now be set up in the application process.

Presidential Scholarships

First-time first-year applicants and transfers will receive consideration for Presidential Scholarships by applying and being accepted for admission by March 1 for the following fall term and meeting the minimum scholarship requirements. These scholarships are for full-time students and may be renewed for up to four years, so long as a student maintains a 3.0 GPA. Award levels vary depending on each recipient's academic record. For more information, go to www.oit.edu/scholarships.

Engineering Honors Scholarship

Students eligible for any of the four presidential scholarship awards and majoring in engineering are also eligible for the Engineering Honors Scholarship of $1,000 a year, renewable for four years. Students must maintain a 3.0 GPA to keep their scholarship. The Engineering Honors Scholarship is automatically awarded to any applicant majoring in engineering who will attend Oregon Tech starting fall term after graduation from high school, and who is able to meet the Presidential Scholarship criteria. Students must apply for admission, meet all admission requirements, and be accepted for admission by March 1 for enrollment fall term. Recipients must be new, full-time undergraduate students at Oregon Tech.

Klamath County Scholarship

The Klamath County Scholarship is automatically awarded to any applicant living in Klamath County who will attend Oregon Tech starting fall term after graduation from high school and who is able to meet the Presidential Scholarship criteria. Students must apply for admission, meet all admission requirements and be accepted for admission by March for enrollment fall term. Recipients must be new full-time undergraduate students at Oregon Tech. This scholarship is valued at $1,000 and is NOT renewable.

Oregon Tech Foundation Scholarships

More than 200 new and returning students annually receive funding from scholarships administered by the Oregon Tech Foundation. Alumni, businesses, industry, and friends of Oregon Tech generously fund these awards. To receive consideration, students must be currently enrolled at Oregon Tech, or accepted for admission for the following fall term. Application forms and deadlines are available on the Oregon Tech Web site at www.oit.edu/scholarships. The online scholarship application process is seamless for students and automatically generates a list of scholarships the student is eligible to apply for. The winter application process opens in early December and has a deadline of March 1. There is a smaller process in the summer. Please contact Financial Aid for more information.

Leadership and Diversity Scholarships (LAD)

Oregon Tech awards Leadership and Diversity (LAD) Scholarships each year to students who meet the application criteria. The applicant's background, identities, experiences and how they will make a difference and contribute to Oregon Tech being a place where all students feel a sense of belonging are some of the criteria considered when awarding this scholarship. LAD scholarship recipients are expected to attend events/workshops each term surrounding the topics of leadership development and/or cultural competency. Leadership and Diversity Scholarships are $2,000 per year for Oregon residents or those attending under the Western Undergraduate Exchange, and $3,000 per year for non-residents.

Applicants must be accepted for admission by the Oregon Tech priority deadline and apply through the Oregon Tech Foundation scholarship application by March 1st. For more information visit www.oit.edu/scholarships.

Owls Scholarship

Any incoming first-year student who achieves eight (8) or more college credits in a science, technology, engineering or math course, with a grade of B or better, may apply for the Oregon Tech OWLS program. Applicants must have just finished high school and are applying for fall term admission; transfer students are NOT eligible. Scholarship award is $1,500 when college credits have been completed at Oregon Tech, and $1,000 if completed elsewhere.

Students must be fully admitted and complete the scholarship application by March 1. For more information visit www.oit.edu/scholarships.

Tuition and Fees

Snell 116
(541) 885-1202

Fees and deposits at Oregon Tech are charged according to a uniform plan, varying on the nature of coursework offered. Oregon Tech reserves the right to make changes in fee schedules without notice.

Below is a partial list of the estimated fees paid by students regularly enrolled for undergraduate and graduate study.

For a list of on-campus fees (Building Fee, Incidental Fee, Health Service Fee, Student Recreation Center Fee, and International Insurance) that are dependent on the number of credits enrolled and are charged on a term-by-term basis, see the "Tuition and Fees by Program" PDF on the Oregon Tech website (https://www.oit.edu/college-costs/tuition-fees). Payment of full-time fees entitles students to use the library. Students may receive medical attention from the Student Health Center, use the fitness center (TechRec) and other student services. No reduction in fees is made for students who do not wish to access these services.

The estimated fee schedule for the 2023-24 academic years is provided for planning purposes only. Fees are subject to change. The current fee schedule is available from the Business Affairs Office or on the Oregon Tech website.

Tuition and Fees

Special Fee's

All special fees are subject to change without notice.

Application Fee (Non-refundable) - $50

Must be paid at the time of application submission for admission to Oregon Tech.

Differential Tuition - Medical Imaging, Respiratory Care & Dental Hygiene

Tuition is assessed as the base tuition rate plus 37 percent for students enrolled in Medical Imaging, Respiratory Care and Dental Hygiene programs.

Differential Tuition - Engineering and Technology

Tuition is assessed as the base tuition rate plus 37 percent for students enrolled in Engineering and Technology programs

Interest - Annual rate of 12%

The periodic rate of interest is one percent per month, or a fraction thereof, of the unpaid balance remaining on the account at the time statements are run (around the middle of each month - see the Cashier's Calendar at https://www.oit.edu/business-affairs/accounts-receivable/cashiers-office for exact statement dates).

Late Payment Fee - $99

Students paying fees after scheduled payment due dates for any term will be charged a late fee of $99.

Late Registration Fee - $20

A fee of $20 is charged to students registering for classes after the second week of each term.

Transcripts - $12/copy

Official transcripts are $12 per copy and charged by Parchment.

PDF Transcript - $16.75

A fee of $16.75 is charged by Parchment for each electronic PDF official transcript requested.

Malpractice Fee - $2

A malpractice fee of $2 is charged to all on-campus students who are in majors in the following departments: Medical Lab Sciences, Emergency Medical Services, Respiratory Care, Dental Hygiene, and Medical Imaging Technology. This fee covers malpractice insurance.

Matriculation Fee (Non-refundable) - Undergraduate $350; Graduate $165

A one-time fee assessed to all new on-campus Oregon Tech students. The Matriculation Fee covers student orientation, new student programming, testing services, and tutoring.

Matriculation Distance Education Fee (Non-refundable) - $50

A one-time fee assessed to all new Oregon Tech Distance Education students.

Online Tech Fee - $65

Fee of $65 charged for each fully online course, except for 0 credit online labs. This fee covers the cost of technology to deliver a course.

Parking Fees

All student, staff and faculty vehicles for the Klamath Falls campus must be registered with Parking Services and operated in compliance with *Regulations Governing Traffic Control*. At the time of vehicle registration, a parking fee will be assessed in accordance with a schedule approved by the President of the University and approved by the Oregon Tech Board of Trustees. Parking permits may be purchased online via TECHweb. Vehicles must be registered by the first day of classes. Parking Fees for 2023-24 are:

Students	Faculty/Staff	Permits - Additional Vehicles
$140.75/year	$223/year	$10 fee for additional vehicles for one-term and full-year permits
$71.40/term	$112/term	(This fee allows up to four vehicles per permit. Only one vehicle is allowed on campus at a time.)

Petition to Graduate Fee - $56

A fee of $56 is charged on the Oregon Tech student account after the student has submitted the Petition to Graduate form. Please contact the Registrar's Office with questions regarding this fee.

Returned Check or Electronic Payment Fee - $25

If payments to a student account are made by check or electronic payment and are returned because of any irregularity, the student becomes responsible for a $25 Returned Check or Electronic Payment Fee that will be charged on their student account. A Late Payment Fee will also be added to the student account for unpaid balances resulting from a returned check or electronic payment.

Room and Board Costs

The 2024-25 estimated annual room-and-board costs range from $11,265 to $12,873depending on room type and meal plan purchased. Room-and-board charges are assessed by term. Fees are due in accordance with the same fee payment schedule as exists for tuition. Payments are due at the end of the second week of the term (unless a payment plan has been arranged with the Cashier's Office – please see details and due dates on the Oregon Tech Cashier's webpage).

Senior Citizen Instruction Fee

Senior citizens are persons aged 65 or older. Such persons are authorized to attend classes on a space-available basis. Charges for special materials (any extra class fees), if any, do apply. The senior-citizen privilege is extended to persons auditing classes only (not seeking credit or working toward a degree).

Per-credit hour: There is no charge for tuition and on-campus fees (Incidental, Health Service, Building, and Student Recreational Center Fees), therefore incidental fee privileges are not provided.

Service Charge - Payment Plan - $10

A $10 service charge per term is assessed on accounts using the payment plan. See the Student Financial Responsibility Agreement (found on the Cashier's webpage https://www.oit.edu/business-affairs/accounts-receivable/cashiers-office for more details on payment plan requirements.

Special Course Fees, per course

Special Course Fees, fees in addition to regular tuition, are assigned for some courses. These fees are noted in the *Schedule of Classes* for each term. These fees cover required consumable materials for the course that the institution purchases for students for more competitive pricing or because of better availability to the institution than to individuals.

Special Examination Fee, per credit - $50

Examination for credit.

Tuition and Fees

Tuition and Fee Refunds

Students who withdraw from the university and who have complied with the regulations governing academic withdrawals may be entitled to certain refunds of tuition and fees assessed, depending on the time of withdrawal. The refund schedule has been established by the Oregon Tech Board of Trustees and is on file in the Business Office. Included with the refund schedule is the mandated order in which financial aid must be returned to the appropriate programs for students receiving financial aid. All refunds are subject to the following regulations:

- Tuition and Fee Refund Appeal forms must be submitted to the Business Affairs Office no later than 90 days after the last day of the term in which the course(s) was dropped.
- An official notice of withdrawal must be completed, and necessary clearance signatures filed with the Registrar's Office.

Refunds in all cases are calculated from the date of receipt of the application for refund or date of withdrawal, and not from the date when the student ceased attending classes, except in unusual cases when formal withdrawal has been delayed through cause beyond the student's control.

Tuition and Fees

New subpage

New subpage content

Tuition and Fees

Library Fines and Charges

The following regulations govern library fines and charges:

1. **Overdue Fines**–Separate overdue fines apply to reserve items, equipment and materials borrowed from other libraries.
2. **Oregon Tech Lost Items**–Borrowers failing to return materials within 60 days of the due date for Oregon Tech Library's material will be charged the replacement cost of the items.
3. **For Alliance and ILL Lost Items**-Borrowers failing to return materials within 40 days of the due date for ILL and Alliance (Summit) materials will accrue separate charges. For Alliance (Summit) items the replacement charges are $75, plus a $15 service charge in addition to any overdue charges for each Alliance item not returned. For ILL lost items the replacement charges are established by the lending library in addition to any overdue charges for each ILL item not returned.
4. **Refunds**–When a lost item for which the borrower has been billed is returned before replacement has been ordered, a refund not exceeding the replacement cost may be made at the discretion of the library. In cases where replacement has been ordered, no refunds to the borrower will be made.

Academic Policies and Procedures

Office of the Registrar

541-885-1300

Biovin Hall 116

Student Rights and Responsibilities

Students are responsible for knowing and understanding Oregon Institute of Technology's requirements relating to registration, academic standards, student activities and student organizations as well as adhering to the Student Code of Conduct found on the website. Students are encouraged to meet regularly with their departmental advisors and to contact the Registrar's Office with questions about academic procedures, policies or regulations. More information can be found here.

Academic Advising

Students are assigned faculty advisors from their academic programs. Advisors maintain a file on students' progress and help them plan course loads. If a student should change programs, a new advisor will be assigned. Degree-seeking students are required to meet with their advisors prior to registration.

Student Classification

Students are classified according to the number of college-credit hours earned as follows: 0-44, freshman; 45-89, sophomore; 90-134 junior; 135 and above, senior. Transfer credits are included in determining classification.

Quarter System

Oregon Institute of Technology operates on an academic year consisting of three quarters (or terms) of approximately 11 weeks each (10 weeks of classes and 1 week of final examinations) and a summer session of eight weeks.

Oregon Common Course Numbers

The state of Oregon has identified a set of commonly transferred lower division courses across all public higher education institutions that are part of a common course numbering system. These courses have aligned course numbers, learning outcomes, credit hours, course titles and descriptions. The courses are identified in the catalog, the class schedule and on official transcripts with the letter 'Z' placed at the end of the course number. Courses with the common course Z identifier are guaranteed to transfer within public institutions in Oregon.

Excessive Course Load

Admitted students are allowed to register for 21 credit hours (including audits) during an academic term without special permission. Fifteen credits are the maximum for summer session. Students wishing to register for an overload must have a 3.0 cumulative GPA and receive special approval from the advisor and the University Registrar. Appeals may be considered for special circumstances. The class schedule will provide associated tuition costs each term.

Non-admitted students are restricted to eight credits per term, with the exception of summer where 15 credit hours are the maximum.

Student Records and Right to Privacy

In compliance with the federal Family Educational Rights and Privacy Act (FERPA), state law and Oregon Tech policy, students have certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the university receives a request for access. Students should submit written requests to the registrar, dean, head of the academic department, or other appropriate official, that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom a request should be addressed.
2. The right to request the amendment of the student's education record that the student believes is inaccurate or misleading. Students should write the university official responsible for the record; clearly identify the part of the record they want changed; and specify why the record is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of the personally identifiable information contained in the student's educational record, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including health staff and members of the university's law enforcement department); a person or company with whom the university has contracted; a person or company acting as consultant or volunteer for the university; a person serving on the university's Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A university official has a legitimate educational interest if the official needs to review an educational record in order to fulfill their professional responsibility.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Oregon Institute of Technology to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5920
1-800-USA-LEARN (1-800-872-5327)
Website: https://www.ed.gov/category/keyword/family-policy-compliance-office-fpco

The information provided here is for informational purposes only. For more FERPA resources please see the Office of Registrar FERPA webpage.

Oregon Tech Directory Information:

- Student's full legal name
- Current mailing address
- Current phone number
- Hometown
- Dates of attendance by term
- Degree program/major field of study
- Honor roll (President's & Dean's List)
- Date of graduation
- Full time, half-time, or less than half-time enrollment status
- Most recent/previous school attended
- Particpation in sports/activities
- Age, height, and weight or athletic team members

A student may request to have all of the above directory information kept confidential. To do so, please reach out to the Registrar'r Office at registrar@oit.edu.

Release of Student Information to Military Recruiters (Solomon Amendment)

Oregon Tech provides information about students that is requested by military recruiters under requirements of the Solomon Amendment (As of Oct. 23, 1998 [63 Fed. Reg. 56819] and the Interim Rule published Jan. 13, 2000 [65 Fed. Reg. 2056] by Department of Defense). Under this federal law, military recruiters may request the following information: Name, current mailing address (as provided by the student), current telephone number (as provided by the student), age, class level (e.g., freshman, sophomore, etc.), and academic major. The information may be requested for the immediately previous term, current term, or future term for all students age 17 and older who are or were registered at OIT for at least 1 credit in the requested term. Recruiters may request this information each term. Recruiters may not obtain any information that is not in the above list of student recruiting information. For example, they may not request any of the following: Social Security Number or ID Number, place of birth, race/ethnicity/nationality, grades and GPA, grades of low-performing students, religious affiliation, names of students with loans in default, veteran status, or names of students no longer enrolled at OIT. Institutions that do not comply with the Solomon Amendment risk losing federal funding from the departments of Defense, Education, Health and Human Services, Labor, and Transportation. Institutions do not risk losing student-aid funding such as Perkins Loans, Federal SEOG or Work-Study funds.

Use of Social Security Number (SSN)

You are requested to provide voluntarily your Social Security Number to assist OIT (and organizations conducting studies for or on behalf of OIT) in developing, validating, or administering predictive tests and assessments; administering student aid programs; improving instructions; internal identification of students and alumni; collection of student debts; or comparing student educational experiences with subsequent workforce experiences. When conducting studies, OIT will disclose your Social Security Number only in a manner that does not permit personal identification of you by individuals other than representatives of OIT (or the organization conducting the study for OIT) and only if the information is destroyed when no longer needed for the purposes for which the study was conducted. By providing your Social Security Number, you are consenting to the use identified above. This request is made pursuant to ORS 352.004, ORS 352.107, and ORS 352.146. Provision of your Social Security Number and consent to its use is not required and if you choose not to do so you will not be denied any right, benefit, or privilege provided by law. You may revoke your consent to the use of your Social Security Number at any time by contacting the Registrar's Office at registrar@oit.edu.

All access and use at Oregon Tech of the Social Security Number is prohibited except for meeting federal or state requirements, compliance, and reporting.

Academic Policies and Procedures

Academic Standing

Academic Warning

An academic warning is a caution to the student that there is a lack of satisfactory academic progress. Students, including first term freshmen, who do not achieve a 2.0 in any given term will receive an Academic Warning. Students who have no earned credits, withdrawals (i.e., all Fs, withdrawals (W) and/or incompletes (I)), for two consecutive terms will also receive an Academic Warning.

Academic Probation

Students who have attempted two or more terms at Oregon Tech and have an Oregon Tech cumulative GPA below 2.0 will be placed on Academic Probation. Students who have no earned credits, (i.e. all Fs, withdrawals (W) and/or incompletes (I)), for three or more consecutive terms will also be placed on Academic Probation. Students placed on probation will receive notification that they are on Academic Probation as well as instructions on how to proceed. Once placed on probation, students are advised to limit their course load to 13 credits. Courses transferred in from other institutions are not included in institutional cumulative GPA.

Academic Suspension

Students on academic probation for one term who do not meet the 2.0 cumulative GPA requirement in the successive term of enrollment will be placed on Academic Suspension for at least one term. To re-enroll, a student must complete the prescribed procedures and appeal to the Academic Progress and Petitions Committee for reinstatement. Students should contact the Registrar's Office for re-enrollment information. Students who have been suspended are denied all privileges of the institution.

Veteran students receiving benefits will lose all benefits until academic standing is improved to good standing.

NOTE: When a student is placed on academic warning, probation or suspension both the student and their advisor will be notified.

Academic Progress and Petitions Committee

Administration of the regulations governing academic performance is vested in the Academic Progress and Petitions (AP&P) Committee. This committee also has authority to assess probation or to suspend any student from the university when it appears that the student's work is at such a level that the student cannot benefit by continued attendance. The university requires that students make substantial progress toward meeting graduation requirements, including maintaining a minimum 2.0 GPA. Any cumulative GPA below 2.0 is considered unsatisfactory and will bring the student's record under review. Courses transferred in from other institutions are not included in institutional cumulative GPA.

The AP&P Committee also serves as an advisory group to the Registrar's Office regarding academic appeals. For information regarding appeals to this committee, students may contact the Registrar's Office. Committee decisions are final.

Academic Policies and Procedures

Policies

- Final Examinations
- Dead Week
- Repeat Courses
- Auditing Courses
- Academic Forgiveness
- Academic Grievance

Final Exams

All teaching faculty will meet their classes during finals week at the final-examination time designated in the official class schedule issued at the beginning of each term.

1. No student activities or athletic events will be scheduled during finals week
2. Methods of evaluation are at the discretion of the instructor. The methods of evaluation of student achievement and grading standards should be specified in the course syllabus and distributed to students the first week of class
3. Faculty who use a final examination will administer that exam at the time designated in the official class final examination schedule. Finals times are designed not to conflict

Individual students may request exceptions to this policy. These must be approved in advance by the instructor.

Course instructors may request exceptions to this policy. The exception must be approved by the dean of the college and students should be given at least three weeks prior notice of the change.

Dead Week Policy

Dead Week (the period of Monday morning prior to finals week until the Monday morning of finals week) is the last week of regularly scheduled activities for the term. As such, Dead Week includes routine activities (e.g., lectures, discussions, laboratories, quizzes, assignments, appropriate course reviews, etc.).

1. Final examinations, when utilized, must be given at the scheduled time during finals week
2. No student activities or athletic events will be scheduled during Dead Week
3. Projects and/or examinations due Dead Week may not exceed 20 percent of the final course grade without giving students at least three weeks prior notice

The Provost and Vice-President for Academic Affairs must approve any exceptions to this policy.

Repeat Policy

The following restrictions apply for course-repeat situations:

1. Students may attempt the same course (for a "W" or a letter grade) a total of four times
2. Each withdrawal ("W") is considered an attempt. Withdrawals, however, are not included in GPA calculations
3. The new grade earned will replace the previous grade(s) when computing GPA. Only the first two earned grades will be excluded for GPA calculations. The last grade earned will be used on the application for degree
4. All grades and credits remain on the student's official transcript

NOTE: Students should consult with their financial aid counselor to determine financial eligibility for repeat courses.

Auditing Policy

A student has the option to enroll in a class for informational purposes only. This enrollment is classified as an audit and is regulated by the following procedures:

1. Audit classes are charged at regular tuition rates as printed in the class schedule
2. The only grade an audit class may be granted is "N" (audit). The "N" grade is disregarded in the GPA and is not valid toward graduation requirements
3. Class attendance shall be in accordance with the instructor's attendance policy for all students in the class
4. Instructors having audit students have no obligation to grade or record the audit student's work
5. An audit option may be requested during the registration period. Changes "to" or "from" the audit option may be requested no later than the 10th academic day of the term
6. Students auditing a course may, at a later term:
    - Register for the same course for credit
    - Challenge the course by examination

Academic Forgiveness

The Academic Forgiveness policy allows undergraduates with an unsatisfactory GPA to drop a maximum of three consecutive terms of work from consideration in their GPA. Academic forgiveness applies to terms only. Students are not allowed to select courses within terms for forgiveness.

Academic forgiveness is granted on a case-by-case basis by the Academic Progress and Petitions Committee. It is an extreme measure; it may be granted only once and only when a student provides clear and convincing evidence of a renewed commitment to advancing his or her education. Once forgiveness is granted, it may not be revoked. Forgiveness can be applied only to credits earned at Oregon Tech.

If the petition is approved, the student's transcript will have a notation stating, "Academic Forgiveness Granted" above each term in which forgiveness was granted. Forgiven courses and grades are no longer calculated in the GPA and do not apply toward graduation. However, a record of all coursework will remain on the transcript.

Eligibility

To apply for consideration for academic forgiveness a student must:

- Have earned less than a 1.0 term GPA for the term(s) being considered for forgiveness. The term(s) for which forgiveness is being requested must have been taken at least seven years prior to the request
- Have had at least a two-year lapse in enrollment at Oregon Tech
- Be currently enrolled at Oregon Tech
- Have completed a minimum of 30 graded credits at Oregon Tech with minimum cumulative GPA of 3.0 or better since resuming studies at Oregon Tech
- Apply for forgiveness with the Academic Progress and Petitions Committee before degree completion

Procedure

To apply for academic forgiveness, a student must submit a formal letter of request to the University Registrar, which must include:

1. Specific term(s) (maximum of three consecutive) for which forgiveness is being requested
2. Statement of academic goals and a term-by-term plan for degree completion signed by the student's academic advisor
3. Rationale for the request

The University Registrar will forward the application to the Academic Progress and Petitions Committee for review and will notify the student of the Committee's decision.

Student Academic Grievance

Academic Disputes Covered by Policy

1. Student claims that final course grade resulted from unfair or prejudicial treatment by instructor or unusual or irregular procedures that impacted an individual student's grade in a disproportionate manner.

2. Student is dismissed from a professional program because of failure to meet prerequisite or sequential course requirements.
3. Student is dismissed from a professional externship component because of failure to meet standards of conduct or performance as required by the professional program and/or the externship site, as published in the Student Handbook for that program.

Academic and Related Disputes Not Covered by Policy

- Grades assigned to tests, quizzes, homework, papers, projects, or other components of a course.
- Final grades based on failure to meet published (via syllabus) standards for the course, in which no unusual or prejudicial treatment is claimed.
- Disciplinary or other student conduct matters no specifically covered above.
- Challenges to the instructor's grading system or components thereof, as long as the system was made available to students at the beginning of the academic term.

Procedure

1. Student reads policy to determine if the grievance can be appealed.
2. Student makes appointment to dispute with course instructor. Since reconciliation of the dispute at this level is in the best interests of all parties, instructors and students are urged to engage in an honest and open-minded effort to resolve the problem.
3. Failing to resolve the dispute with the instructor, the student makes an appointment with either the program director (if one exists) or department chair, as appropriate. a. The student and the instructor document the dispute in writing. b. The department chair should confer with the instructor, either before (preferred) or after consultation with the student. c. The department chair refers the matter back to the instructor for resolution or decides the dispute based on information that is available.
4. If disagreement with the department chair decision results, the student may request an appointment with the dean of the appropriate school (HAS or ETM). The student should indicate that the appointment concerns a grade dispute and the department, course, and instructor involved.

- Students will not be seen by the dean unless the preceding steps have been followed. An exception to this is when the course instructor is the department chair. Then, the second level of appeal is the dean.
- The dean contacts the department chair and, when appropriate, the course instructor to obtain information on the dispute.
- After consultation with the department and the student, the dean offers the student the choice of a summary decision by the dean or the opportunity for a hearing by the Student Conduct Review Commission.

Seattle Site Students:

The Washington Student Achievement Council (WSAC) has authority to investigate student complaints against specific schools. WSAC may not be able to investigate every student complaint. Visit https://www.wsac.wa.gov/student-complaints for information regarding the WSAC complaint process.

Academic Policies and Procedures

Transfer Credit

Oregon Tech makes every effort to give maximum consideration to the transfer work presented by enrolling students. To ensure that the student has the requisite knowledge, Oregon Tech follows these policies in determining credit:

Accreditation Status of Institution

The institution where the transfer credit was earned must be accredited by a regional accrediting body recognized by the Council for Higher Education (CHEA).

Students transferring work from an institution that is not regionally accredited by a CHEA-recognized accrediting body may receive transfer credit by:

1. demonstrating prior experiential learning with a portfolio
2. applying for credit after demonstrating competencies in advanced coursework in the same subject area or
3. challenging courses by exam

International Institutions

Students seeking transfer credit from international institutions must provide Oregon Tech with a credential evaluation from an Oregon Tech-approved credential evaluation service. Credential evaluation information may be obtained from the Office of Admissions. The credential evaluation must include course titles, credits and grades. Students must also provide course descriptions in English from the international institution. Any associated costs are the responsibility of the student.

Official Transcripts

Prior to the formal awarding of transfer credit, the transfer student must provide an official transcript of coursework completed at all other higher education institutions. Failure to list all colleges attended on the Application for Admission may result in denial of admission or transfer credit.

Admitted transfer students must submit official transcripts at least one term prior to enrollment to ensure timely evaluation of transfer credits.

Any student receiving GI Bill® education benefits while attending Oregon Tech is required to obtain transcripts from all previously attended schools and submit them to the school for review of prior credit.

GI Bill® is a registered trademark of the United States Department of Veterans Affairs (VA).

Determination of Transfer Credit

The Oregon Tech Registrar's Office determines the transfer equivalency of general education courses using articulation agreements, course descriptions, course outlines, and course syllabi. The student's major department determines the transfer equivalency for technical or major courses using similar resources.

Articulation Agreements

Oregon Institute of Technology is dedicated to enhancing partnerships with regional community colleges. One important way of doing this is by forming articulation agreements. An articulation agreement is an officially approved agreement that matches coursework between schools. These agreements are designed to help students make a seamless transition when transferring to Oregon Tech. Articulation agreements give students a clear understanding of what courses will transfer to Oregon Tech and satisfy requirements for their major with the least overlap or repeat of courses. Some agreements accept an associate degree in its entirety while other agreements outline specific courses to take as a student plans for transfer. Students should inform the Admissions Office, their academic department advisor, and Registrar's Office when they are utilizing an articulation agreement.

A list of articulation agreements can be found online at www.oit.edu/articulations; students may search by Oregon Tech major or by transfer institution. Questions regarding these agreements may be directed to the students' academic department or the Office of Academic Agreements.

Applicability of Transfer Credit

Oregon Tech provides a report upon the admission of the student, prior to the planned term of enrollment. The evaluation delineates the transfer credit on a course-by-course basis and specifies direct course equivalencies, courses which may be used towards general-education requirements, elective credits and courses which do not receive credit.

At the time of admission, Oregon Tech's report may include elective credits that do not apply towards a specific degree. These credits will be recorded as transfer credit for registration purposes, allowing the student an earlier registration appointment based on total earned credit hours.

Some transfer work, which may not be directly equivalent to Oregon Tech courses, may be appropriately substituted to meet Oregon Tech requirements. Students may seek course substitution approval by completing the Course Substitution form and obtaining the signature of the advisor, department chair and University Registrar.

The transferability of credits earned at Oregon Tech is at the discretion of the receiving college, university, or other educational institution. Students considering transferring to any institution should not assume that credits earned in any program of study at Oregon Tech will be accepted by the receiving institution. Similarly, the ability of a degree, certificate, diploma, or other academic credential earned at Oregon Tech to satisfy an admission requirement of another institution is at the discretion of the receiving institution. Accreditation does not guarantee credentials or credits earned at Oregon Tech will be accepted by or transferred to another institution. To minimize the risk of having to repeat coursework, students should contact the receiving institution in advance for evaluation and determination of transferability of credits and/or acceptability of degrees, diplomas, or certificates earned.

Credit for Alternative-Delivery Courses

Courses taken by alternative delivery from other accredited institutions will be evaluated as transfer credit.

Minimum Grade Standards

Oregon Tech considers for transfer those courses that carry a grade of D or better from an accredited institution. However, many Oregon Tech departments require C or better course grades for prerequisite and graduation purposes.

Pre-College Level Transfer Credit

Oregon Tech students who plan to enroll at other institutions during the summer or to complete coursework for the degree in absentia are encouraged to obtain written pre-approval of transfer credit to ensure transfer equivalency for degree purposes.

Pre-Approval of Transfer Credit

Oregon Tech students who plan to enroll at other institutions during the summer or to complete coursework for the degree in absentia are encouraged to obtain written pre-approval of transfer credit to ensure transfer equivalency for degree purposes.

Military Credit

Oregon Tech will grant credit for military courses and experiences based on American Council of Education (ACE) guidelines (found in the Guide to the Evaluation of Educational Experience in the Armed Forces) and faculty recommendations. Credit is awarded in accordance with transfer credit policies at Oregon Tech. Students may request evaluation of military credit by furnishing an official AARTS or SMART transcript.

College-Level Examination Programs and Advanced Placement: College Level Examination Program (CLEP)

Oregon Tech will award credit for several college-level examination programs. These examinations must be completed with a satisfactory score and an original copy of test results must be forwarded to the Registrar's Office from the testing service. In order to receive such credit, the student must be admitted to an Oregon Tech degree program and registered for classes during the term in which the request is made. Oregon Tech awards credit for College-Level Examination Program (CLEP) subject examinations, but not for CLEP general examinations. Information on CLEP course equivalencies and minimum scores may be obtained from the Oregon Tech Registrar's Office.

Advanced Placement (AP)

Students who complete college-level work in high school under the Advanced Placement (AP) program must achieve a minimum score of three to be granted credit on their Oregon Tech transcript. AP course equivalences may be obtained from the Office of Admissions or Registrar's Office.

A maximum of 25 percent of the credits used toward the degree may be CLEP and AP.

International Baccalaureate

Oregon Tech evaluates IB test scores much in the same way it evaluates AP scores. Students must have official test scores sent to the Office of Admissions. Oregon Tech may award credit to students who receive a 5 or higher on any Higher Level IB examination. For more information, please contact the Registrar's Office at (541) 885-1300.

Credit for National Registry or Licensure Exams

Oregon Tech will award a pre-approved block of credit to fully admitted and enrolled students who have passed a national registry or licensure exam in majors offered by the institution. This award of credit is based on the academic department's annual review of the national exam questions in comparison to the curriculum taught on campus. Full information is maintained in the Registrar's Office and via Oregon Tech Online, which coordinates online degree-completion programs offered by Oregon Tech.

Academic Policies and Procedures

Credit by Exam and Credit for Prior Learning

Oregon Tech awards credit for educational accomplishments attained outside of accredited post-secondary institutions.

Credit by Examination

Students currently enrolled at Oregon Tech may request credit for a course by special examination. This process is called a course challenge and the provisions are:

1. Credit by examination (course challenge) is available to students who are fully admitted in degree-granting programs
2. Students may not challenge a course which they have previously taken for credit and received a grade other than an audit, nor may they challenge the same course more than once. If students register for a course they wish to challenge, they must drop and challenge the course before the last day to drop without a "W"
3. No more than 25 percent of the credits submitted for graduation may be credit by examination
4. Examinations receive either a "P" (pass) or "F" (fail). A pass suggests the student has mastered the material comparable to a grade of "C" or better in the course being challenged. The University Registrar records "P" grades on the student transcript, but does not count the P in grade point average calculations. The University Registrar does not record "F" grades
5. Students must pay a non-refundable per-credit fee, as published by the Office of Business Affairs, prior to the examination
6. Departments are responsible for preparing an appropriate examination, evaluating the student's response and submitting results to the Registrar's Office. Departments reserve the right to declare any course offering as non-challengeable

Further procedures and general guidelines for course challenges may be obtained from the Registrar's Office.

Credit for Prior Experiential Learning

Oregon Institute of Technology recognizes that students learn outside the classroom through experiences on the job, vocational education, professional development courses, workshops, and independent study. Oregon Tech may grant credit for experiential learning when it is judged that learning outcomes are equivalent to those of college-level courses in the Oregon Tech curriculum. This process is only appropriate for students who wish to demonstrate learning for more than one required course. Typically, credit for experiential learning will be a substitute for a series of major specific courses.

Level of Credit

Oregon Tech grants credit for prior experiential learning at the undergraduate level only. Credit will be awarded only for documented prior learning that has a balance, appropriate to the subject, between theory and practical application, and not just for prior experience. Credit should be appropriate to the academic context in which it is accepted.

Eligibility Requirements

The student must be fully admitted and enrolled at Oregon Tech. Credit will not be granted until the student has successfully completed the procedure outlined. Credit for prior experiential learning will not be granted if the student has already received credit for the same course. No more than 25 percent of the credits needed for a degree or certificate may be from credit for prior experiential learning. Credit may only be granted for courses offered by Oregon Tech and the university reserves the right to declare any course offering as inappropriate for prior experiential learning credit.

Awarding of Credit

Completion of the institution's review process does not guarantee a student will receive credit for prior experiential learning. If the student successfully demonstrates evidence of college-level learning, credit will be identified on the student's transcript as credit for prior learning. This credit will not be graded or counted in the student's grade point average. Students wishing to appeal the award of credit should appeal to the Provost, whose decision is final.

Tuition and Fees

Fees charged for portfolio assessment are based on the services performed. The application fee for a specified course is published by the Office of Business Affairs. This non-refundable fee must be paid prior to submitting the portfolio for assessment. Proof of payment must accompany the student's Credit for Prior Experiential Learning Application.

Transfer of Prior Experiential Learning Credit

Oregon Tech accepts credit for prior learning from other institutions, provided that the transfer institution awards such credit on the basis of standards similar to those outlined by the Northwest Association of Colleges and Universities (NWCCU).

Faculty Evaluator Qualifications

Credit is awarded based on the recommendation of teaching faculty who are qualified in the subject area and who are on regular appointment with the university on a continuing basis.

Procedure

Students seeking credit for prior experiential learning should first confer with their advisor to help assess if their experience and learning are appropriate for this process. If it is determined that experiential learning assessment is appropriate, the student should contact the University Registrar.

The University Registrar will determine whether the student has met the eligibility requirements outlined in this procedure. If so, the University Registrar and the Department Chair will sign the student's Credit for Prior Experiential Learning Application. The student must then complete a prior experiential learning documentation course. This course may be utilized for curricular requirements by the major department if appropriate.

Upon completion of the documentation course, the student will submit his/her Credit for Prior Experiential Learning Application and completed portfolio to the department chair. At the department chair's discretion a faculty member will review the portfolio and if necessary will interview the student. The final decision is recorded on the student's Credit for Prior Experiential Learning Application and will be forwarded to the University Registrar. The Credit for Prior Experiential Learning Application will be included in the student's permanent academic record. The portfolio will be retained in accordance with Oregon Tech's archive guidelines.

Academic Policies and Procedures

Grading System

Student academic achievement is evaluated and reported in accordance with a system of letter grades assigned at the end of each course. These grades become part of the student's transcript, a permanent academic record. A summary statement of a student's total academic record is expressed as a cumulative grade point average (GPA). The academic grievance procedure can be found here.

Grading Policy - Bachelor and Master

Oregon Tech uses a 4.0 grading scale to evaluate student performance. Upon completion of a course or upon termination of attendance in the course, a student's performance will be graded by the instructor and reported to the University Registrar as follows:

Letter Grade	Meaning	Points Per Credit Hour	Used to Calculate GPA
A	Exceptional	4	Yes
B	Superior	3	Yes
C	Average	2	Yes
D	Inferior	1	Yes
F	Failed	0	Yes
I	Incomplete	0	No
IP	In Progress	0	No
N	Audit	0	No
NP	No Pass: *Equated to a "D" or "F"*	0	No
P	Pass: Equated to a "C" or better	0	No
W	Withdrawn	0	No
Z	No Grade Assigned	0	No

For program specific grading, such as DPT, please refer to the program handbook.

Grade Point Average Example

A student's GPA is computed by assigning a numerical point value to each grade: "A," 4 points per credit; "B," 3 points per credit; "C," 2 points per credit; "D," 1 point per credit; "F," 0 points per credit. GPA at Oregon tech is truncated. GPA is the quotient obtained by dividing total grade points by total hours attempted. Grades of "I", "P", "NP", "W" and "N" are disregarded in calculating GPA; however, a "P" is equivalent to a "C" or better. For example:

Class #	Title	Credits	Grade	Point Value for Credits	Earned Grade
WRI 121Z	Composition I	3	B	3	9
ECO 201	Economics	3	C	2	6
MATH 111Z	Precalculus I: Functions	4	A	4	16
CHE 101	Elementary Chemistry	3	B	3	9
CHE 104	Elementary Chemistry Lab	1	B	3	3
HED 250	Contemporary Health Issues	2	A	4	8
PHED 190	Racquetball	1	B	3	3
Total					**54**

GPA = Sum of earned grade points = $\frac{54}{}$ = 3.1764 or 3.17; credits attempted: 17

Grade Change Policy

All grades except for 'I', 'IP' and 'Z' are considered final when filed by the instructor during grade processing each term. Thereafter, a grade change may be made only in the case of clerical, institutional, procedural or calculation error although a student's grade may be changed following a student's appeal through Academic Grievance Procedures.

No grade other than 'I' or 'IP', once reported, may be revised by re-testing, or by completing additional work. A student's grade cannot be changed by any person other than the instructor of record unless an exception is granted by the Department Chair, College Dean or Provost. Any grade change by the instructor of record must take place within one year subsequent to the term in which the grade was reported. Any grade change that is to be filed later than one year must be approved by the appropriate College Dean and the University Registrar.

Non-Standard Grading

Courses may be graded on the pass (P)/no pass (NP) basis at the discretion of the department and the University Registrar. Courses may include, but are not limited to seminars, externships, co-ops, independent study, certificate classes, and physical education.

Class Drop/Withdrawal

A student may drop/withdraw from a course through Friday of the seventh week of the term. Although teaching faculty may drop a student during the first two weeks of the term, according to the Faculty Initiated Withdrawal Policy, they are not required to do so. Students will be notified of instructor initiated drops in writing.

Faculty-Initiated Withdrawal

Teaching faculty can drop a student during the first two weeks of the term from a class if the student has not attended by the second regularly scheduled meeting of that class. The student will be notified of the withdrawal in writing by the Registrar's Office.

Student Initiated Drops/Withdrawals

1. During the first 10 days of the term, a student may drop one or more courses with no record. However, if a student withdraws from all courses, the student's transcript will note "Complete Withdrawal"
2. After the first 10 days of the term, a student who withdraws from one or more courses will receive a "W" for those courses. Students may withdraw from individual courses through Friday of the seventh week of the term
3. After Friday of the seventh week, students will receive a letter grade from the instructor
4. Complete withdrawals from the university may be processed through Friday of the week prior to final-exam week. Depending on the time of the term, a complete withdrawal will result in a notation of a "complete withdrawal" or "W's" on the student's transcript
5. Students requesting to withdraw from a course(s) after the published withdraw dates that have medical documentation supporting the withdraw should contact the **Dean of Student's Office**

NOTE: The deadlines for dropping/withdrawing from a course are listed in the Academic Calendar.

Incompletes

When the quality of a student's work is satisfactory, but some essential requirement of the course has not been completed for reasons acceptable to the instructor, a grade of Incomplete (I) may be assigned and additional time granted for completion. The instructor is responsible for submitting an "I" grade and completing the Request for Incomplete form and submitting it to the Registrar's Office.

An "I" grade must be removed by the end of the next term (summer session not included). An "I" may only be extended under the most extenuating circumstances and then only for one additional term. If an "I" is not removed within the allotted time, the "I" then reverts to the alternate grade assigned by the instructor on the incomplete form.

Incompletes received in the anticipated term of graduation must be finished and the grades recorded in the Registrar's Office within three weeks after the end of the final term. Otherwise, the diploma will be delayed until the term during which all degree requirements are met.

In Progress (IP) Grade

The "In Progress" grade is used for classes with coursework that continues past the end of the term in which the student is registered. Examples include externship, co-op, clinical and project classes. The "IP" grade may be retained over multiple terms. "IP" grades that are not changed during the allotted time revert to a grade of "F" for undergraduate and graduate courses.

"IP" grades given at the undergraduate level will be retained for a maximum of four terms. The "IP" grade for a specific graduate level course is maintained by the Registrar's Office for a maximum of five years. Each year the student should file a progress report with the Graduate Council signed by the student and the student advisor. After five years, the student can appeal to the Graduate Council to request a grade change beyond this five-year limit. The Graduate Council has the authority to approve or deny the student's petition.

No Grade Assigned (Z) Grade

The "No Grade Assigned" grade is a grade assigned by the Registrar's Office when no grade is reported by the instructor. A "Z" grade should be changed by the instructor as soon as possible. If a "Z" is not removed by the completion of the following term, the "Z" reverts to a grade of "F".

Graduation

Application for Degree

Students must file an *Application for Degree* at least two terms prior to the term of graduation. These forms are available in TECHweb, at the Registrar's Office, in the Portland-Metro Programs offices and in academic departments. They are submitted to the Registrar's Office for evaluation.

Oregon Tech Portland-Metro students must schedule a graduation degree-check appointment with their major's program director at least two terms prior to graduation. The final graduation check is completed by the Registrar's Office at the Klamath Falls campus.

Monitoring Degree Progress

DegreeWorks is a web-based degree audit and advising tool that is utilized by students and advisors. The software identifies courses students have completed and courses still needed to fulfill requirements. Students and Advisor access this tool through Web for Student or Web for Faculty. The Office of the Registrar works with faculty annually to maintain an accurate degree audit that is used to clear graduation requirements.

Sealing of a Degree

All grade changes, removals of incompletes, and transfer work necessary for completion of degree requirements must be on file in the Office of the Registrar by the Friday following the end of the term of graduation. Academic records are sealed ninety days after the conferral of a degree: no changes to the record will be made following that date.

Grade Point Requirement

Oregon Tech requires a minimum cumulative GPA of 2.0 for graduation.

Graduation Residency Requirements

All degree/certificate/diploma programs require students to take a minimum number of Oregon Tech courses (25 percent of total credits). For a certificate, a minimum of 5 term-credit hours must be taken from Oregon Tech. For an associate degree, a minimum of 30 term-credit hours must be taken from Oregon Tech. For a bachelor's, a minimum of 45 term-credit hours must be taken from Oregon Tech. For a master's, a minimum of 12 term-credit hours must be taken from Oregon Tech. Credits earned through Oregon Tech course challenge or the Oregon Tech Credit-for-Prior-Learning program are considered resident credits toward graduation requirements. All other credits granted by examination (CLEP or AP) or other methods are non-resident credits. Students desiring to complete course requirements for graduation from Oregon Tech at another college or university must receive prior approval from the Registrar's Office.

Catalog of Graduation

Students must meet all degree requirements from one Oregon Tech catalog. The catalog may be chosen from the year the student is first admitted and enrolled or from any subsequent year. However, at the time of graduation, all students, including transfer students, must use a catalog that is no more than seven years old.

Transfer students may select their catalog of graduation prior to full admission to Oregon Tech by obtaining written approval from their Oregon Tech major department and the University Registrar. The agreed upon catalog will be the one a student uses when he/she transfers to Oregon Tech. Students must enroll at Oregon Tech within two years of this approval.

Departments periodically review their curriculum for technical currency. As a result, significant program changes may occur. Courses previously required in the curriculum can no longer be offered. The major department will provide a transition plan for students to fulfill degree requirements.

Programs discontinued by the university may have specific entrance and graduation limits that override the catalog of graduation.

Baccalaureate Upper-Division Credit Requirement

Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300- and 400-level classes at a bachelor's-degree-granting institution.

Multiple Majors

An undergraduate student may earn multiple majors if all the degree requirements for each major are met. All successfully completed majors will be listed on both the transcript and diploma.

Concurrent Degrees

Students may be granted a second bachelor's degree provided they meet the requirements for both degrees and complete an additional 36 credits beyond the requirements of the first degree. 45 credits are required if the first degree was not granted by Oregon Tech and students must meet the general-education requirements as outlined in their catalog of graduation. If the first bachelor's degree was granted by Oregon Tech, the general education requirements are waived for the second degree.

Curricular Requirements

Curricular requirements are determined by, and vary with, the departments involved. Major requirements are published in this catalog.

Minors

A minor consists of a minimum of 18 credits in a subject field outside the student's major. The total credits required for a minor depend on the academic discipline, the prerequisites of the required courses and the student's starting level in the discipline. Requirements for approved minors are listed by department in this catalog. Minors will only be granted at the time students receive their baccalaureate degrees. Application for a minor must be submitted to the University Registrar with the student's application for degree.

Graduation in Absentia

Students wishing to complete the Oregon Tech degree by attending another college and transferring work after the minimum residency credits have been met (30 for associate and 45 for bachelor's degree) must complete an *Application for Degree* and have the final transferring classes approved for their degree by the transcript evaluator in the Oregon Tech Registrar's Office. This should be done prior to leaving Oregon Tech and beginning at the other college.

Commencement

Oregon Tech's main graduation ceremony is held in Klamath Falls, Oregon in June each year. We encourage earlier graduates of the academic year (Summer, Fall, and Winter), and the graduating candidates for Spring and Summer to participate. Graduates from all Oregon Tech campuses are also invited to participate. Academic honors are calculated after the June ceremony.

Diplomas

Diplomas are not issued at Commencement, regardless of graduation term. Students officially graduate when grades are finalized and it is verified that all degree requirements have been successfully completed. Please allow 4-6 weeks for the degree to be officially awarded to student records and mailed.

NOTE: Diplomas are held if there is an outstanding balance on student accounts and/or if required loan Exit Interviews have not been completed.

Academic Honors

At each Commencement, Oregon Tech recognizes academically outstanding students who will receive their bachelor's degree with academic honors. This honor is estimated and based on all Oregon Tech courses but may change after final grades are processed. *To be eligible for honors a student must complete a minimum of 75 Oregon Tech GPA hours/credits.*

Academic honors are based on the following criteria:

Cum Laude
Graduation with honors 3.50-3.74 GPA

Magna Cum Laude
Graduation with high honors 3.75-3.89 GPA

Summa Cum Laude
Graduation with highest honors 3.90-4.00 GPA.

NOTE: Students who do not have 75 Oregon Tech credits and who are graduating from a Degree Completion program must complete a minimum of 45 graded Oregon Tech credits to be eligible for honors. For Degree Completion students, who fall into this category, honors are based on all Oregon Tech courses and transfer courses used for the degree.

Honors recognized at the graduation ceremony do not include grades from the term immediately preceding Commencement. After final grades are posted, the honors standing of some students may change. These students will be notified. A student's final honors standing will be posted on the official transcript. Summer graduates will not receive academic honors at the spring commencement.

Only past and spring honors are recognized at commencement, with an announcement and with honor cords. Summer graduates will have honors listed on their diploma and official transcripts upon completion.

Academic Term Honors

President's List (Applicable to full-time undergraduate students only)
Each term, students with a GPA of 3.70 or better are included on the President's List.

Dean's List (Applicable to full-time undergraduate students only)
Each term, students with a GPA of 3.30-3.69 are included on the Dean's List.

Honors

Special Recognition

Each spring a number of Oregon Tech graduates will be selected for membership in national honor societies. Honor society members can be identified by a distinctive honor cord worn over the shoulder at Commencement.

Alpha Chi, which selects members from baccalaureate programs, identifies its honor society graduates with a white cord. Tau Alpha Pi, which selects members from the sophomore, junior and senior classes of engineering-technology majors, identifies its graduates with a crimson cord. Lambda Phi Eta selects from juniors and seniors in Communication Studies. Members are identified by a gold cord. Lambda Nu selects from juniors and seniors in Medical Imaging. Members are identified by a cord that is green, gold and maroon. Sigma Theta Tau, who wear gold and maroon cords, includes Nursing students in the top third of the class.

Baccalaureate General Education Requirements

General Education Requirements

Oregon Tech's General Education requirements provide breadth and depth to the Oregon Tech educational experience. The requirements are designed to help students widen perspectives, explore relationships between subjects and develop critical and analytical thinking skills in areas integrated with a student's major. General education provides the core of an undergraduate university education. These courses help students make progress toward becoming educated persons and provide a foundation for lifelong learning.

Through general education at Oregon Tech, students study broad topics, principles, theories and disciplines. The courses are organized within the curriculum in such a manner that students will acquire knowledge, abilities and appreciation as integrated elements of the educational experience. In addition, general education courses teach students to communicate clearly, think critically and globally, define and solve problems within and across disciplines, calculate logically and apply scientific reasoning. No matter what their major, students will benefit from studying areas of knowledge that help them become competent, well-rounded professionals as well as well-educated human beings and citizens.

All students must complete the university general education requirements as listed in the curriculum map for the major and in this catalog. If a student holds a baccalaureate degree or higher from a recognized, accredited institution, as determined by Oregon Tech, the Oregon Tech general education requirements for the Oregon Tech baccalaureate may be substituted subject to departmental accreditation requirements.

General education credits at Oregon Tech total 55 credits and include 18 credits of Communication, 9 credits of Humanities, 12 credits of Social Science and 16 credits of Science/Math with a least 4 credits of college-level math where intermediate algebra is a prerequisite.

Transfer students entering Oregon Tech who have earned either an Associate of Arts Oregon Transfer degree (AAOT) or an Associate of Science in Business degree (ASOTB) from an Oregon community college will be considered as having met Oregon Tech's lower division general education requirements. Please see the Oregon Tech website for updated list of courses granted.

* *Developmental courses, including MATH 100 and WRI 115 , cannot be used for graduation.*

Baccalaureate General Education Requirements

Communication

18 credits:

- COM 111Z - Public Speaking
- WRI 121Z - Composition I
- WRI 122Z - Composition II OR WRI 227Z - Technical Writing
- Plus 6 credits from the following list:
    - COM 205 - Intercultural Comm
    - COM 218Z - Interpersonal Communication
    - COM 320 - Advanced Intercultural Comm
    - COM 347 - Negotiation & Conflict Resol'n
    - COM 401 - Civil Engineering Project I
    - SPE 314 - Argumentation
    - SPE 321 - Small Group/Team Comm
    - WRI 123 - Research Writing
    - WRI 214 - Business Correspondence
    - WRI 227Z - Technical Writing
    - WRI 327 - Advanced Tech Writing
    - WRI 328 - Style
    - WRI 345 - Science Writing
    - WRI 350 - Documentation Develop
    - WRI 410 - Proposal & Grant Writing

Baccalaureate General Education Requirements

Humanities

9 credits selected by student or specified by a major department from the following:

- ART - Art
- HUM - Humanities
- LIT (ENG) - Literature
- MUS - Music
- PHIL - Philosophy
- Languages (second year)

Other transfer courses, defined as "humanities" by the Registrar's Office, may be used in this category. No more than three credits of activity or performance-based courses may be used in this category.

Baccalaureate General Education Requirements

Social Science

12 credits selected by student or specified by major department from the following:

- ANTH - Anthropology
- ECO - Economics
- GEOG - Geography
- HIST - History
- PSCI - Political Science
- PSY - Psychology
- SOC - Sociology

Other transfer courses, defined as "social science" by the Registrar's Office, may be used in this category.

* ANTH 101 may not be used to satisfy both Social Science and Science credits

* GEOG 105 may not be used to satisfy Social Science credits

Baccalaureate General Education Requirements

Technology

Specific requirements for demonstrating computer proficiency may be established by the academic department.

Baccalaureate General Education Requirements

Science/Mathematics

One, four credit college-level mathematics course for which at least intermediate algebra is the course prerequisite.

Plus 12 credits selected by student or specified by major department from:

- biological sciences (BIO, CHE, ENV 111)
- mathematics (MATH)
- statistics (STAT 243Z)
- physical sciences (PHY)
- physical geography (GEOG 105) or geology (GEOL)
- physical anthropology (ANTH 101)

Other transfer courses, defined as "Science/Mathematics" by the Registrar's Office, may be used in this category. At least four credits must be completed from a laboratory-based science course in BIO, CHE, GEOG, GEOL or PHY.

Baccalaureate General Education Requirements

Baccalaureate Upper-Division Requirement

Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division work is defined as 300- and 400-level classes at a bachelor's-degree-granting institution.

Bachelor of Science Degree

The Bachelor of Science degree requires the student to opt between completion of 36 credits in mathematics and science or 45 credits in mathematics, science and social science. Students placed at a higher beginning level of mathematics than is published in the curriculum of their major may choose to substitute those mathematics credits surpassed by their accelerated level of placement with electives from any department to attain the required number of general education credits required by the university for graduation.

Intercultural Studies

Students are encouraged to select at least one class from the following lists of intercultural courses. These courses also satisfy general education requirements:

- Humanities:
    - HUM 147 - West Cult in the Classical Age
    - HUM 148 - West Cult in the Medieval Age
    - HUM 149 - West Cult in the Modern Age

- Social Science:
    - ANTH 103 - Intro to Cultural Anthropology
    - GEOG 106 - Cultural Geography I
    - GEOG 107 - Cultural Geography II
    - GEOG 108 - Cultural Geography III
    - HIST 392 - Modern Asia
- Communication
    - COM 205 - Intercultural Communication

Applied Computing & Geomatics Department

Stephan Andrei, *Interim Department Chair*
Professor: S. Lee

Degree Offered

- Bachelor of Science in Geomatics with options in:
    - Surveying
    - Geographic Information Systems

The department is now offering both of these degrees fully online; some courses may need to be transferred depending on current course availability. As the land surveying option prepares students to pass the Fundamentals of Surveying (FS) examination and pursue licensure as a registered Professional Land Surveyor (PLS), applicants to the online Surveying option must be a surveyor actively working in the field under the supervision of a licensed surveyor. In addition, the department chair and faculty advisor may consider an exception to the employment requirement.

Minors Offered

- Geographic Information Systems
- Surveying

Geomatics is the modern profession encompassing the disciplines of surveying, mapping, engineering, and geoscience. Geomatics employs an integrated approach to the measurement, analysis, presentation, and management of geospatial data. Geospatial data is obtained from a variety of sources including ground-based instruments, mobile mapping technologies, drones, hydrographic, and earth-orbiting satellite systems. Geospatial data is used to create a detailed but understandable picture of the Earth's physical features. This data enables the design and development of land administration systems for sustainable planning and management of the built environment. Geospatial data is a critical component of addressing climate change.

Geomatics provides the opportunity to work primarily outdoors, exclusively in an office, or in some combination of the two. Geomatics attracts individuals who enjoy mathematics, history, making maps, using advanced software and high-tech instruments. Career employment is available in rural and urban areas throughout the nation.

The United Nations has adopted its first resolution, *A Global Geodetic Reference Frame for Sustainable Development*, recognizing the importance of a globally coordinated approach to geodesy – the geomatics discipline focused on accurately measuring the shape, rotation, and gravitational field of the earth.

Students within the Geomatics Program must choose between either an option in Surveying or Geographic Information Systems (GIS). Students may, with consent of their advisor, complete both options.

Program Learning Outcomes

1. an ability to identify, formulate, and solve broadly-defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline;

2. an ability to formulate or design a system, process, procedure or program to meet desired needs;

3. an ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgement to draw conclusions;

4. an ability to communicate effectively with a range of audiences;

5. an ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts;

6. an ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Student Preparation

It is recommended that students prepare for entrance into the program by emphasizing mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry and physics are desirable prerequisites.

Bachelor of Science in Geomatics, Surveying Option

The department offers a nationally-recognized professional degree program that prepares students for employment within the geomatics profession and licensure as a Professional Land Surveyor (PLS). Students enjoy small classes taught by licensed professionals that emphasize fundamental theory and problem solving in a computer-intensive curriculum. Field laboratory experiences integrated throughout the curriculum provide practical skills, and offer extensive opportunities to prepare students to work in teams using state-of-the art technology. Upon completing the freshman year, students often have enough experience to obtain summer employment as a survey crew member.

Completion of the program qualifies graduates to take the Fundamentals of Surveying (FS) exam during the spring term of the senior year. The broad-based nature of the curriculum ensures that graduates will be prepared to fulfill both the traditional and contemporary roles of the profession.

Cooperative Education

Geomatics students may, upon completion of the freshman year, apply for student career experience programs (Pathways) with the U.S. Bureau of Land Management, Bonneville Power Administration, U.S. Forest Service, or other appropriate federal employers. Work experiences are paid and may be for three or six month periods. Students may earn two or four credits for work experience periods. A maximum of four credits may be applied toward the bachelor's degree.

Geomatics students are also eligible for the Civil Engineering Cooperative Program (CECOP), offering high-quality, paid industrial experience and related academic activities while students pursue their degree. The Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) counts this internship time toward PLS licensure requirements.

Scholarships

Approximately 40 scholarships are available to geomatics students each year through an endowed Geomatics Department Scholarship, CLSA, PLSO, LSAW, WESTFED, NSPS, and other organizations.

Career Opportunities

The employment forecast for graduates in this field is exceptional. As an increasing number of licensed surveyors across the nation retire, a personnel shortage has been created within the geomatics profession. Graduates are prepared for a wide variety of career opportunities in the fields of surveying, engineering, construction, remote sensing, GIS, and land information management.

Accreditation

The Geomatics Program (surveying option) is accredited by the Applied and Natural Science Accreditation Commission (ANSAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Geomatics, Geographic Information Systems (GIS) Option

Geographic Information Systems (GIS) is a systematic approach to the mangagement, analysis, and display of geospatial information. Management of such information requires application of advanced database skills, the ability to see a project through to completion, and fundamental project management skills. The analysis of geodata sets is predicated on a firm understanding of geospatial reference/coordinate systems, topological relationships, and statistical methods. Techniques for displaying geospatial information take various forms such as maps, geographic data sets, and data models. Students graduating from this course of study will understand how to manipulate geospatial data to solve political, economic, engineering, and ecological problems and how to use and create online resources to effectively communicate their results.

Students learn in a project-based environment to manage the flow of data through the project in terms of data acquisition, processing, analysis, and presentation. Within the GIS option, students may select individual areas of focus based on independent study and/or online courses.

Career Opportunities

The list of opportunities for students in the field of GIS is continuing to show substantial growth. As our society becomes more data centered, the importance of understanding the spatial location of this data and its geospatial relationship to other data is becoming increasingly apparent. Understanding such geospatial relationships is fundamental to areas such as health care, land records management, transportation modeling, environmental engineering/science, and urban planning, to name only a few. Local, state, and federal agencies are embracing GIS more each year as these agencies realize that GIS is the appropriate tool to solve long-standing geospatial problems. Private industry is also embracing GIS since it can be used to streamline delivery and/or response routes. Both private and public entities have also realized that GIS provides an excellent decision support framework structure.

Programs

BGMG-BS_BGMG-MAJOR - Geomatics-option in GIS
BGMS-BS_BGMS-MAJOR - Geomatics-option in Surveying
CGIS-C_CGIS-MAJOR - Geomatics Info Systems Cert

Courses

COMP290 - Applied AI Fundamentals
GIS103 - The Digital Earth
GIS107 - Seminar
GIS134 - Geographic Info Systems
GIS205 - Mobile and Web GIS
GIS207 - Seminar
GIS306 - Geospatial Raster Analysis
GIS307 - Seminar
GIS316 - Geospatial Vector Analysis
GIS332 - Python for Geospatial Analysis
GIS351 - GIS for Natural Resources
GIS407 - Seminar
GIS426 - Geospatial Vector Analysis II
GIS432 - Customizing the GIS Envirn II
GIS435 - Remote Sensing II
GIS445 - Spatial Data Acquisition:UAVS
GIS446 - GIS Database Development
GIS456 - GIS Web Services & Management
GIS526 - Geospatial Vector Analysis II
GIS535 - Remote Sensing II
GME107 - Seminar
GME134 - Geographic Info Systems
GME161 - Plane Surveying I
GME162 - Plane Surveying II
GME163 - Route Surveying
GME175 - Computations and Platting
GME207 - Seminar
GME241 - Legal Aspects of Land Surv I
GME242 - Land Descrip & Cadastre
GME264 - Digital Design for Surveying
GME307 - Seminar
GME343 - Boundary Surveys
GME351 - Constr/Engr Surveying
GME372 - Subdiv'n Planning and Platting
GME395 - Cooperative Field Experience
GME396 - Cooperative Field Practice
GME407 - Seminar
GME425 - Remote Sensing
GME444 - Adjustment by Least Squares
GME451 - Geodesy

GME452 - Map Projections
GME454 - GNSS Surveying
GME466 - Legal Aspects of Land Surv II
GME468 - Geomatics Practicum
GME495 - Cooperative Field Experience
GME496 - Cooperative Field Practice
GME497 - CFedS

Applied Mathematics Department

Program Learning Outcomes

Graduates will be able to:

1. Apply mathematical concepts and principles to perform computations
2. Apply mathematics to solve problems
3. Create, use and analyze graphical representations of mathematical relationships
4. Communicate mathematical knowledge and understanding
5. Apply technology tools to solve problems
6. Perform abstract mathematical reasoning
7. Learn independently

Career Opportunities

Upon completing the requirements for the Applied Mathematics degree students will be prepared for a variety of jobs in industry including numerical modeling, signal processing, data analysis, and many others. The degree also provides students a solid foundation to further their education by entering a Masters or Ph.D. program in Mathematics or Applied Mathematics.

Student Preparation

Students entering the Applied Mathematics Program from high school should have a minimum of two years of algebra, one year of pre-calculus, one year of geometry, and two years of physical science (physics or chemistry preferred). Additional courses in mathematics, science, English and computer programming will be very helpful. Students entering the Applied Mathematics Program by transfer are requested to contact the Mathematics Department concerning transfer of technical course work.

Data Science

Data scientists use computation and applied mathematics to extract insights from data. In addition to technical duties, they work as part of a team, must communicate effectively, and account for ethical and context-specific considerations. The B.S. in Data Science degree at Oregon Tech prepares students for these roles by combining coursework from five departments: Applied Mathematics (the program host), Computer Systems Engineering Technology, Communication, Management and Geomatics.

A key element of the program is extensive hands-on experience. In their junior year, students work in small teams to design or implement applications of material from previous classes. In their senior year, each student completes a capstone project to develop a data driven solution for an outside group, such as a local business or national organization.

The mathematical and programming skills gained in the program enable students to go beyond off-the-shelf solutions for machine learning and data processing. Students are introduced to advanced methods for large and/or complex data, such as time-series, geospatial or text. A special emphasis is placed on using transparent statistical methods, in which assumptions for mathematical models can be clearly communicated to and understood by a non-technical audience who are then better equipped to rate the value of conclusions draw from such models.

After graduation, students are ready for immediate employment as data scientists or for advanced coursework.

Program Learning Outcomes

Graduates will have the technical skills necessary to gain actionable insights from data, the ability to effectively communicate these insights as a member of an interdisciplinary team, and the necessary foundation in ethics, mathematics, and computer science to thrive in the evolving field of data science.

Graduates will:

1. Be prepared for the professional practice of data science or acceptance into a graduate program,
2. Have an appropriate foundation in mathematics, statistics, and computer science in order to thrive in an evolving field,
3. Be able to identify and incorporate ethical considerations in their work,
4. Be able to identify, collect and analyze the data necessary for actionable insights, and
5. Be able to effectively communicate findings.

Career Opportunities

Data scientists work in a wide variety of contexts. For example, a data scientist might help design a survey to inform the marketing strategy for a new product, analyze data from electronic health records or gather large amounts of data from websites or government databases.

Graduates may obtain employment under a variety of job titles, which may include data scientist, data analyst, business intelligence analyst, research analyst, and statistician.

Many people currently working as data scientists hold advanced degrees but this trend may change as undergraduate programs begin to produce graduates with appropriate skill sets.

Student Preparation and Admissions

Students must meet the standard Oregon Tech admissions requirements. Transfer students must arrange for official transcripts from each college and university attended to be sent to Oregon Tech and are requested to contact the Applied Mathematics Department concerning transfer of technical course work.

Program Curriculum

Students looking to work within a specific context or apply for a specific graduate program should work closely with their advisor to choose a relevant application for their senior year project and to pursue an appropriate minor or other additional coursework.

Applied Mathematics Minor

The minor in Applied Mathematics provides formal recognition of mathematical proficiency. It is composed of a core of required courses and upper-division electives related to the student's major. The minor consists of 29 credits, 19 from required courses and 10 from elective courses.

This minor is open to all majors and is especially recommended for students with an interest in pursuing a career related to mathematics. It will enhance their employability and improve graduate school possibilities.

Curriculum

A passing grade in all courses and a cumulative GPA of 2.0 or better is required to be awarded the minor.

At least 12 credits must be taken at Oregon Tech.

Programs

BDAS-BS_BDAS-MAJOR - Data Science
BMTC-BS_BMTC-MAJOR - Applied Math option in Com Mat
BMTH-BS_BMTH-MAJOR - Applied Mathematics
BMTH-ND_HAS-MAJOR - Applied Mathematics
BMTP-BS_BMTP-MAJOR - Applied Math option in Physics
BMTS-BS_BMTS-MAJOR - Applied Math option in Stats

Courses

MATH070 - Elementary Algebra
MATH097 - Algebra Review
MATH100 - Intermediate Algebra
MATH101 - Accelerated Algebra
MATH105Z - Math in Society
MATH107 - Seminar
MATH111A - College Algebra
MATH111Z - Precalculus I: Functions
MATH112Z - Precalculus II: Trigonometry
MATH207 - Seminar
MATH251 - Differential Calculus
MATH251Z - Differential Calculus
MATH252 - Integral Calculus
MATH252Z - Integral Calculus
MATH253 - Sequences and Series
MATH253P - Multi/Vector Calc
MATH253Z - Calculus: Sequences and Series
MATH254 - Vector Calculus I
MATH307 - Seminar
MATH310 - Mathematical Structures
MATH311 - Introduction to Real Analysis
MATH315 - History of Mathematics
MATH321 - Appl Diff Equation I
MATH322 - Appl Diff Equation II
MATH327 - Discrete Mathematics
MATH341 - Linear Algebra I
MATH342 - Linear Algebra II
MATH346 - Number Theory
MATH347 - Fundmtls of Abstract Algebra
MATH354 - Vector Calculus II
MATH361 - Statistical Methods I
MATH362 - Statistical Methods II
MATH371 - Finite Math/Calc I
MATH372 - Finite Math/Calc II
MATH407 - Seminar
MATH421 - Applied Partial Diff Equations
MATH422 - Applied Partial Diff Equtns II
MATH423 - Applied Partial Diff Equ III
MATH451 - Numerical Methods I
MATH452 - Numerical Methods II
MATH453 - Numerical Methods III
MATH465 - Mathematical Statistics
STAT201 - Introduction to Data Science
STAT211 - Data Science Methods
STAT243Z - Elementary Statistics I
STAT395 - Junior Project I
STAT396 - Junior Project II
STAT397 - Junior Project III
STAT405 - Adv. Methods in Data Science
STAT407 - Seminar
STAT412 - Regression & Times Series
STAT414 - Stat Methods in Epidemiology
STAT441 - Statistical Machine Learning I
STAT442 - Statistic Machine Learning II

STAT495 - Senior Project I
STAT496 - Senior Project II
STAT497 - Senior Project III
STAT505 - Biostatistics I
STAT515 - Epidemiology I

Civil Engineering Department

Civil engineers design infrastructure—transportation networks, bridges, buildings, dams, communities, and water and waste management systems—for the enhancement of human welfare and protection of our environment. Oregon Tech's freshman-to-master's Civil Engineering program equips students to meet industry and societal needs identified by the American Society of Civil Engineers (ASCE).

Degrees Offered

- Bachelor of Science in Civil Engineering (BSCE)
- Master of Science in Civil Engineering (MSCE)

Career Opportunities

Upon completing the core curriculum, civil engineering students have a solid foundation in structural, transportation, water resources, and geotechnical engineering. Upper division students can target specific disciplinary areas with specialized technical electives. Graduates have career opportunities with consulting firms, government agencies, heavy construction contractors and industry. They are also very successful in passing the Fundamentals of Engineering exam, paving the way for professional licensure as a civil engineer.

Geotechnical engineering involves the design and construction of projects built on, in, or with earth materials. These projects include, but are not limited to, foundations for structures, earthen embankments, dams, landfills, and underground structures. In addition, geotechnical engineers predict the performance and behavior of the earthen materials due to changes imposed by other engineered systems.

Structural engineering involves the planning, analysis and design of buildings, bridges and other structures using the principal construction materials of wood, steel, concrete and masonry. Graduates are familiar with current codes and standards, and methods of analysis and design.

Transportation engineering is concerned with the planning, design, construction, operation, safety, performance, and evaluation of transportation systems and facilities, such as urban streets, highways, bicycle and pedestrian facilities, and public transit.

Water resources engineering addresses the spectrum of water issues including supply, transport, use, and discharge, and is at the junction of efforts to provide sustainable human and natural environments, in compliance with regulatory mandates. Graduates have opportunities in planning, design, and operation of hydraulic and water resource projects, floodplain management, or resource management issues.

Civil engineering graduates may consider a dual degree in environmental sciences to expand career opportunities with a broad spectrum of government agencies, consulting firms, and industry.

A minor in geomatics allows graduates to obtain professional licensure as both a land surveyor and civil engineer.

Mission Statement

The mission of the Oregon Tech Civil Engineering program is to prepare students for professional practice. To be prepared to practice as professionals, engineers must be able to act responsibly and ethically, understand their limits and the limits of the tools they use, communicate effectively, work well in teams, and, amid the changing landscape of the field of civil engineering, be able to pursue graduate-level education.

Objectives

The alumni from the BSCE program at Oregon Tech should be able to:

- Practice in civil engineering or a related field.
- Pursue advanced or continuing education in civil engineering or a related field.
- Act as responsible, effective and ethical citizens.
- Understand and effectively communicate the realistic constraints of civil engineering.
- Perform effectively in a multi-disciplinary environment.

Students enjoy a close relationship with full-time faculty with advanced engineering degrees, many of whom are also licensed professionals with many years of practical experience. Course offerings promote education in the application of theory relevant to our civil engineering technical areas, engineering design, and principles of sustainable development. These concepts are emphasized and integrated throughout the curriculum in a sequential manner.

Early in the curriculum, elements of the creative design process are introduced as students complete first-year design projects. To ensure graduates become responsible, effective citizens and begin building a foundation for lifelong learning, students are required to satisfy Oregon Tech general education requirements in communication, humanities, social sciences, and science/mathematics.

While most first-year and sophomore courses are intended to provide a solid background in mathematics, communications, and basic sciences, lower-division engineering mechanics and civil engineering courses engage students with more foundational topics in engineering and professional practice.

In their third year of study, students develop a broad civil engineering knowledge base. Third-year courses include core topics in geotechnical, structural, transportation, and water resources engineering.

In the fourth year, students are required to complete an intensive, two-term, engineering design project. This effort is focused on a professional-quality civil engineering design with real-world context and includes essential elements of technical communications and group dynamics. The design project also involves realistic constraints including cost and sustainability considerations, socioeconomic concerns, aesthetic choices and ethical deliberations. Fourth-year students also take technical electives and prepare for the FE examination as a step toward licensure as professional engineers. In this year, BS-seeking students complete their undergraduate degree requirements while concurrent (BS/MS) degree-seeking students begin their selected program of graduate-level coursework, which may include a graduate project or thesis.

Finally, in the optional fifth year, concurrent students complete BS and MS coursework and their choice of additional coursework, an individual graduate project, or thesis.

Program Learning Outcomes

Upon graduating from the BSCE program, students will have an ability to:

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Student Preparation

Students interested in civil engineering should emphasize mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry, chemistry and physics are preferred. Additional courses in mathematics and computer-aided drafting are desirable. .

Accreditation

The Civil Engineering Program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Graduation Requirements

All courses listed in the curriculum for the current catalog year must be completed to be eligible for graduation, unless a student has already completed the requirements for a category that has changed. When changes are made to the curriculum, students who entered the program under a previous catalog will work with their academic advisors to transition to meet the requirements of the current catalog. A final grade of "C" or better must be earned in all math and science courses and those with CE, ENGR, GIS, and GME prefixes as well as all listed prerequisites for these courses.

The Bachelor of Science degree in Civil Engineering requires a minimum of 180 credits and students must maintain a 2.0 GPA to be eligible for graduation.

For the concurrent bachelor's and master's degrees in Civil Engineering, a minimum of 225 credits must be completed. Students must earn a 3.0 GPA by the end of the third year for progression to the fourth and fifth years of study.

The Master of Science in Civil Engineering requires completing 45 credits of approved graduate work. Students must maintain a 3.0 graduate-level GPA with a final grade of "C" or better in all graduate courses.

Programs

5CE-BMS_5CE_GR-MAJOR - Civil Engineering
5CE-BMS_5CE_UG-MAJOR - Civil Engineering
BCE-BS_BCE-MAJOR - Civil Engineering
BCE-ND_ETM-MAJOR - Civil Engineering
BDCE-BS_BDCE-MAJOR - Dual Civil Eng/Env Sciences
MCE-MS_MCE-MAJOR - Civil Engineering

Courses

ACAD110 - ETM Freshman Seminar
CE101 - Intro to Civil Engineering I
CE102 - Intro to Civil Engineering II
CE107 - Seminar
CE203 - Engineering Graphics
CE205 - Computational Methods
CE207 - Seminar
CE211 - CE Mechanics: Statics

CE213 - CE Mechanics:Strength Material
CE222 - Civil Engineering Materials
CE307 - Seminar
CE308 - Princ of Professional Practice
CE311 - Intro to Geotechnical Engr
CE312 - Earth Pressures & Foundations
CE318 - CE Mechanics: Fluids
CE331 - Structural Analysis
CE341 - Elementary Structural Design
CE351 - Intro to Transportation Engr
CE354 - Traffic Engineering
CE371 - Closed Conduit Design
CE374 - Hydrology
CE401 - Civil Engineering Project I
CE402 - Civil Engineering Project II
CE403 - FE Exam Preparation
CE405 - Sustainability & Infrastruct
CE407 - Seminar
CE412 - Seismic Engineering
CE424 - Advanced Soil Mechanics
CE432 - Struc Loading & Lateral Forces
CE433 - Structural Matrix Analysis
CE434 - Advanced Solid Mechanics
CE435 - Structural Dynamics
CE439 - Highway Bridge Rating
CE442 - Adv Reinforced Concrete Design
CE444 - Intermediate Steel Design
CE447 - Masonry Design
CE448 - Timber Design
CE449 - Bridge Design
CE450 - Transportation Structures
CE455 - Bicycle & Pedestrian Transport
CE456 - Pavement Engineering
CE458 - Transportation Safety Analysis
CE481 - Environmental Engineering I
CE499 - Independent Studies
CE501 - Civil Engr Graduate Seminar
CE507 - Seminar
CE512 - Seismic Engineering
CE524 - Advanced Soil Mechanics
CE533 - Structural Matrix Analysis
CE534 - Advanced Solid Mechanics
CE535 - Structural Dynamics
CE539 - Highway Bridge Rating
CE549 - Bridge Design
CE550 - Transportation Structures
CE555 - Bicycle & Pedestrian Transport
CE556 - Advanced Pavement Design
CE558 - Transportation Safety Analysis
CE590 - Civil Engineering Grad Project
CE595 - Graduate Thesis
CE599 - Independent Studies
CIV107 - Seminar
CIV201 - Sustainable Civil Engr I
CIV207 - Seminar
CIV307 - Seminar
CIV358 - Project Management
CIV407 - Seminar
ENGR101 - Intro to Engineering I
ENGR207 - Seminar
ENGR318 - Engineering Mech: Fluids
ENGR407 - Seminar
ENGR485 - Fund of Engineering Exam Prep
ENGR507 - Seminar
ENGR595 - Selected Grad Topics in Engr

Communication Department

The Bachelor of Science in Communication Studies allows students flexibility in designing a program that fits their life and career goals. Students choose core courses and elective from areas such as technical, organizational, and interpersonal communication. In addition, students build a career foundation by completing a *focused sequence of electives.*

Program Learning Outcomes

Upon graduating, Communication Studies graduates should be able to:

1. Demonstrate critical and innovative thinking.
2. Display competence in oral, written, and visual communication.
3. Apply communication theories.
4. Understand opportunities in the field of communication.
5. Use current technology related to the communication field.
6. Respond effectively to cultural communication differences.
7. Communicate ethically.
8. Demonstrate positive group communication exchanges.

Career Opportunities

The Communications Studies program prepares students for careers in areas such as organizational communication, new communication technologies, education, human resources, law, speech language pathology, public relations, sales, and dispute resolution; it also prepares students for graduate-level study.

Professional Writing

The Professional Writing (PWR) professions serve content areas and technical fields. Housed in the Department of Communication, the PWR B.S. degree program includes core courses in theory and practice of writing and style, in addition to electives in digital text creation, interactive media, management, mathematics, communication, and health sciences. Students choose one of three emphases: Scientific and Technical Writing, Digital Media, or Writing in Organizations.

The PWR program begins with a foundation of writing and style, along with communication theories and application. Graduates will gain competence in the domains of visual and text creation, audience analysis, rhetorical theory, research methods, statistics, and group and team communication. The applied content includes large project creation and management, portfolio work, digital media production, and broad applications of communication skills. The program is designed to integrate written skills with technical knowledge, and courses in technical specialties are required. This program is interdisciplinary and expects students to create a curriculum that matches a specific career path.

Program Learning Outcomes

Upon graduating, Professional Writing graduates should be able to:

1. Design and create documents appropriate for professional and consumer audiences using a variety of industry-standard tools
2. Use accepted rhetorical, linguistic and design theories to craft user- and reader-centered documents
3. Demonstrate professionally-appropriate practice in working with clients/stakeholders and teammates
4. Demonstrate professionally-appropriate ethical reasoning, including awareness intellectual property in the creation and management of documents
5. Analyze their position within the fields of publishing, technical communication, professional writing, and allied disciplines.
6. Manage the production of complex, large-scale projects and their related documentation

Career Opportunities

Professional writers use their advanced written communication skills to synthesize information and span boundaries between technical experts, decision-makers, and the public. They work in a broad range of settings, including the public sector, high tech corporations, entertainment, education, design firms, and more.

General Education Courses

To ensure that Oregon Tech's graduates are skilled communicators, the Communication Department provides writing, speech, and communication courses to satisfy general education requirements. Students in other majors should consult the general education and degree requirements in their major departments.

Student Preparation

All students who plan to study at Oregon Tech should enroll in writing and speech classes during their high school years to better benefit from the university's communication courses. Students applying to the Communication Studies Program should have especially strong reading and writing skills. It is important to have a well-rounded college preparation background, including courses in math, sciences, and general education.

Programs

BCOM-BS_BCOM-MAJOR - Communication Studies
BCOM-ND_HAS-MAJOR - Communication Studies
BPWR-BS_BPWR-MAJOR - Professional Writing
CCGW-C_CCGW-MAJOR - Proposal & Grant Writing Cert
CCHC-C_CCHC-MAJOR - Health Communication Cert
CCTM-C_CCTM-MAJOR - Technical Medical Writing Cert
CCUX-C_CCUX-MAJOR - UX Writing Cert
CDR-C_CDR-MAJOR - Dispute Resolution Certificate

Courses

COM000 - Communication Elective
COM100Z - Introduction to Communication
COM104 - Intro to Communication Studies
COM105 - Intro to Communication Theory
COM106 - Introduction to Comm Research
COM107 - Seminar
COM109 - Intro to Communication Tech
COM111Z - Public Speaking
COM115 - Intro to Mass Communication
COM135 - Communication Software
COM205 - Intercultural Communication
COM207 - Seminar
COM215 - Creativity in Comm
COM216 - Essen of Grammar & Punctuation
COM218Z - Interpersonal Communication
COM237 - Intro to Visual Communication
COM248 - Digital Media Production
COM255 - Communication Ethics
COM256 - Public Relations
COM276 - Democracy and Media
COM301 - Rhetorical Theory & Applicatn
COM307 - Seminar
COM309 - Communication Tech in Use
COM320 - Advanced Intercultural Comm
COM325 - Gender and Communication
COM326 - Communication Research
COM336 - Nonverbal Communication
COM345 - Organization Comm I

COM346 - Health Communication
COM347 - Negotiation & Conflict Resol'n
COM348 - Facilitation
COM358 - Communication and the Law
COM365 - Electronic Comm & Society
COM401 - Civil Engineering Project I
COM407 - Seminar
COM420 - Externship
COM421 - Senior Project I
COM422 - Senior Project II
COM423 - Senior Project III
COM424 - Capstone Course
COM425 - Mediation
COM426 - Mediation Practicum
COM437 - Comm Training & Devpmt
COM445 - Organiz'l Communication II
COM446 - Communication & Leadership
JOUR107 - Seminar
JOUR207 - Seminar
JOUR211 - Intro to Journalism
JOUR307 - Seminar
JOUR407 - Seminar
PWR101 - Intro to Professional Writing
PWR102 - Intro to Web Authoring
PWR206 - Social Media
PWR215 - Writing in the Public Interest
PWR220 - Interaction Design
PWR306 - Writing for the Health Prof.
PWR320 - Content Strategy
PWR325 - Usability Testing
PWR330 - User Research
PWR355 - Project Management for Writers
PWR426 - Design Thinking in TPC
PWR499 - Internship in Prof. Writing
SPE107 - Seminar
SPE207 - Seminar
SPE307 - Seminar
SPE314 - Argumentation
SPE321 - Small Group/Team Communication
SPE407 - Seminar
WRI107 - Seminar
WRI121Z - Composition I
WRI122Z - Composition II
WRI207 - Seminar
WRI214 - Business Correspondence
WRI216 - Public Relations Writing
WRI225 - Writing Nonfiction
WRI227Z - Technical Writing
WRI305 - Writing for the Marketplace
WRI307 - Seminar
WRI325 - Advanced Composition
WRI327 - Advanced Tech Writing
WRI327C - Advanced Technical Writing
WRI328 - Style
WRI345 - Science Writing
WRI350 - Documentation Development
WRI407 - Seminar
WRI410 - Proposal & Grant Writing
WRI415 - Technical Editing
WRI420 - Document Design
WRI507 - Seminar
WRI510 - Grant Proposal Writing
WRI521 - Writing at the Grad Level

Computer Systems Eng Tech Department

Degree Offered

- Bachelor of Science in Computer Engineering Technology

Students who complete the curriculum requirements in Computer Engineering Technology will be knowledgeable in the theory and applications of both computer hardware and software.

Career Opportunities

Work in the field of computer engineering technology includes: application specific integrated circuit development, firmware development, embedded systems design, software development, testing and applications of technology.

Computer Engineering Technology graduates will be involved in development of hardware, software and embedded applications that adapt digital logic and computer systems to solve problems in a wide range of industries from industrial manufacturing to consumer electronics. In addition, they may be involved in product testing and qualification or in application engineering, customer support, sales and public relations.

The curriculum provides the depth and breadth of technical capability necessary for an engineer. The graduate is qualified to assume a responsible position in business or industry. Graduates may be responsible for the development, use and the maintenance of computing systems, and for the supervision of personnel.

New careers are constantly evolving in both the hardware and software branches of this field. A diversified study allows the graduate to quickly adapt to changing market conditions.

Mission

The mission of the Computer Engineering Technology (CET) Degree program in the Computer Systems Engineering Technology (CSET) Department at Oregon Institute of Technology is to provide an excellent education incorporating industry-relevant, applied laboratory-based design and analysis to our students. The program is to serve a constituency consisting of its graduates, employers in the high-technology industry and the members of our IAB. Major components of the CET program's mission in the CSET department are to:

- educate computer engineering technology students to meet current and future industrial challenges;
- promote a sense of scholarship, leadership and professional service among our graduates;
- enable students to create, develop, and disseminate knowledge for the applied engineering environment;
- expose students to a cross-disciplinary educational program;
- provide high tech industry employers with graduates in the computer engineering technology profession

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Programs

BCMP-BS_BCMP-MAJOR - Computer Engineering Tech
BCMP-BS_BCMPSOF-MAJOR - Computer Engineering Tech
BCMP-ND_ETM-MAJOR - Computer Engineering Tech
BDCS-BS_BDCS-MAJOR - Dual Compute/Software Eng Tech
BDEM-BS_BDEM-MAJOR - Dual Embedded Sys/Math
BDES-BS_BDES-MAJOR - Dual Embed/Software Eng Tech
BDSM-BS_BDSM-MAJOR - Dual Software Eng/Applied Math
BEMB-BS_BEMB-MAJOR - Embedded Systems Eng Tech
BEMB-ND_ETM-MAJOR - Embedded Systems Eng Tech
BSOF-BS_BCMPSOF-MAJOR - Software Engineering Tech
BSOF-BS_BSOF-MAJOR - Software Engineering Tech
BSOF-ND_ETM-MAJOR - Software Engineering Tech

Courses

CST000 - CST Elective
CST107 - Seminar
CST110P - Visual BASIC Programm
CST116 - C++ Programming I
CST120 - Embedded C
CST126 - C++ Programming II
CST130 - Computer Organization
CST131 - Computer Architecture
CST133 - Digital Logic II
CST134 - Instrumentation
CST136 - OOP with C++
CST137 - COBOL Programming
CST151 - Advanced FORTRAN
CST162 - Digital Logic I
CST204 - Intro to Microcontrollers
CST207 - Seminar
CST211 - Data Structures
CST223 - Concepts of Programming Lang
CST224P - Data Base I
CST229 - Introduction to Grammars
CST231 - Digital Systems Design I
CST236 - Engr. for Quality Software
CST238 - GUI Programming
CST240 - Linux Programming
CST250 - Computer Assembly Lang
CST263 - Input/Output Devices II
CST264 - Input/Output Devices II Lab
CST271 - Comp Peripheral Dev Lab
CST276 - Software Design Pattern
CST303 - Advanced COBOL Programming
CST307 - Seminar
CST312P - Computer Logic I
CST315 - Embedded Sensor Inter & I/O
CST316 - JR Team-Based Proj Dev I
CST318 - Computer Graphics I
CST320 - Compiler Methods
CST321 - Intro to Microprocessors
CST324 - Database Systems and Design
CST325 - State Machine Design
CST326 - JR Team-Based Proj Dev II
CST331 - Microproc Periph Interfacing
CST332 - Computer Logic III
CST334 - Project Proposal
CST336 - JR Team-Based Proj Dev III
CST337 - Embedded System Architecture
CST340 - Advanced UNIX
CST342 - Data Acquisition
CST344 - Interm Computer Arch
CST347 - Real Time Embedded Op Systems
CST351 - Digital Systems Design II
CST352 - Operating Systems
CST356 - Web Design and Development

CST371 - Embedded Systems Development I
CST372 - Embedded Systems Develop II
CST373 - Embedded Systems Develop III
CST374 - Embedded Project Proposal
CST405 - Directed Study
CST407 - Seminar
CST412 - Senior Development Proj
CST415 - Computer Networks
CST416 - LISP
CST417 - Embedded Networking
CST418 - Data Comm & Networks
CST422 - Sr Development Project
CST426 - Intro to Artif Intell
CST429 - Grammars
CST432 - Senior Development Proj
CST442 - Adv Comp Architecture
CST455 - System on a Chip Design
CST456 - Embedded System Testing
CST465 - Web Development with ASP.NET
CST466 - Embedded System Security
CST471 - Embedded Senior Project
CST472 - Embedded Senior Project
CST473 - Embedded Senior Project
CST475 - Big-Data Analysis
CST490 - Co-op Field Practice
CST490P - Co-op Field Practice
CST507 - Seminar

Dental Hygiene Department

Degrees Offered

- Bachelor of Science in Dental Hygiene (entry level program)
- Bachelor of Science in Dental Hygiene, RDH to BSDH Online Degree Completion (*for licensed dental hygienists who have already graduated from an entry level AAS program*)

The Bachelor of Science in Dental Hygiene is offered on the Oregon Tech campus in Klamath Falls, on the Chemeketa Community College campus in Salem, Oregon, and online for licensed professional dental hygienists completing their Bachelor's degree.

Accreditation

The Dental Hygiene Program is accredited by the Commission on Dental Accreditation (CODA), a national Commission that is responsible for the professional accreditation of dental schools, dental hygiene programs, and other programs related to dentistry. Oregon Tech's Dental Hygiene Program's accreditation status is "approval without reporting requirements" which means it meets all of the "Accreditation Standards for Dental Hygiene Education Programs".

Career Opportunities

Dental hygienists are most commonly employed in private or corporate dental practices and provide oral health preventive and therapeutic services. Graduates are prepared for licensure as a dental hygienist and graduate with the qualifications to obtain permits and endorsements for expanded practice in such settings as nursing homes, schools, and hospitals. In addition to clinical practice, dental hygienists have careers in the fields of education, research, administration, and public health.

Program Goals and Purpose

The Dental Hygiene Program supports developing Oregon Tech's Institutional Student Learning Outcomes through its Program Goals and the curriculum design based on professional standards developed by experts in the field. The Bachelor of Science in Dental Hygiene program prepares students for entry into the dental hygiene profession and additional careers such as public health, administration, education, research, and marketing. The graduate will be prepared to enter master's degree programs in dental hygiene and related programs.

Upon graduation, students are prepared for entry into the dental hygiene profession and are eligible for state and national exams leading to licensure as a registered dental hygienist, including all expanded functions allowed within the scope of practice for a dental hygienist. Program educational objectives are:

- Provide the dental hygiene student the opportunity to gain the necessary knowledge, skills, and values to enter the registered practice of dental hygiene.
- Prepare the student to sit for the National Board Dental Hygiene Examination.
- Prepare the student to take clinical board examinations in dental hygiene, anesthesia, and restorative functions.

Program Mission Statement

The Oregon Institute of Technology Dental Hygiene Program provides a humanistic learning environment that fosters student and graduate success through respect and professionalism, and by encouraging innovation and critical thinking. Its mission is to prepare students to become healthcare professionals who serve diverse populations in multiple roles including leadership, clinical and public health, research, education, and entrepreneurship. Oregon Tech Dental Hygiene graduates gain experience with project-based learning, community service, applied research emphasizing evidence-based practices; and are empowered to become life-long learners.

Program Learning Outcomes:

The dental hygiene graduate will be competent in:

1. Communication: The dental hygiene graduate will be competent in communication and collaborating with other members of the health care team to support comprehensive patient care
2. Critical Thinking and Problem Solving: The dental hygiene graduate will be competent in critical thinking and problem solving related to comprehensive care and management of patients
3. Professionalism, Ethical Practice: The dental hygiene graduate will be competent in applying ethical, legal, and regulatory concepts in the provision and/or support of oral health care services
4. Lifelong Learning: The dental hygiene graduate will demonstrate competent knowledge and self-assessment skills necessary for life-long learning
5. Provision of Oral Health Care: The dental hygiene graduate will be competent in providing the dental hygiene process of care for a wide range of patient profiles and all types of periodontal diseases
6. Community Health: The dental hygiene graduate will be competent in assessing, planning, implementing, and evaluating community based oral health programs including health promotion and disease prevention activities
7. Disease Prevention: The dental hygiene graduate will evaluate factors that can be used to promote patient adherence to disease prevention and/or health maintenance strategies.
8. Evaluating Research: The dental hygiene graduate will be competent in evaluating current scientific literature to incorporate evidence-based decisions into dental hygiene practice.

Professional Development & Membership

Faculty and students are expected to maintain membership in the ADHA professional organization, attend regularly scheduled SADHA meetings, and to participate in professional development, such as local and regional conferences that lead to lifelong learning as defined in the Program Outcomes. **Students are required to join the student chapter of the American Dental Hygienists Association**. There is an annual fee for membership, and this is outlined in the anticipated expenses provided to students upon entry into the Dental Hygiene program.

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Program Learning Outcomes:

The dental hygiene graduate will be competent in:

1. Interprofessional Collaboration/Communication: The dental hygiene graduate will be competent in communication and collaborating with other members of the health care team to support comprehensive patient care.
2. Critical Thinking: The dental hygiene graduate will be competent in critical thinking and problem solving related to comprehensive care and management of patients.
3. Professionalism, Ethical Practice, Evidence Based Decision Making: The dental hygiene graduate will be competent in the application of ethical reasoning, legal, and regulatory concepts in the provision of care, and evidence-based support of oral health care services.

4. Lifelong Learning: The dental hygiene graduate will demonstrate competent knowledge and self-assessment skills necessary for life-long learning.
5. Provision of Oral Health Care: The dental hygiene graduate will be competent in providing the dental hygiene process of care for a wide range of patient profiles and all classifications of periodontal diseases.
6. Community Health: The dental hygiene graduate will be competent in assessing, planning, implementing, and evaluating community based oral health programs.
7. Disease Prevention: The dental hygiene graduate will evaluate factors that can be used to promote patient adherence to disease prevention and/or health maintenance strategies.
8. Evaluating Research: The dental hygiene graduate will be competent in evaluating current scientific literature to incorporate evidence-based decisions into dental hygiene practice.

Student Preparation

A strong science background is essential for individuals interested in any health sciences profession. Students considering a career in dental hygiene should take a college-bound course of study in high school that includes algebra, chemistry, and microbiology and human anatomy and physiology.

Professional Dental Hygiene Competencies

The professional standards of the profession have been published by the American Dental Hygienists Association and by the American Dental Education Association. Students are expected to meet these standards to graduate. Students must show competence by the standards provided by the Commission on Dental Accreditation.

Competency-Based Curriculum

Dental Hygiene academic and clinical courses are both graded and **competency-based,** which means that the essential skills, knowledge, and attitudes expected of students at a given point in the curriculum are specified with the conditions under which students are expected to perform. The criteria for evaluation are also defined. This includes a process of learning that develops in stages.

The expected level of development at any point in the curriculum is defined in the Program Competency Timeline. Competency assessments are Pass/Fail. Grades are only earned once the required minimum level of performance has been reached. All Competency assessments are required and MUST be passed at the appropriate level in order to continue in the program. They are benchmark assessments. A non-passing score will receive a zero grade and will warrant an F in the overall course grade. The Competency Timeline is a list of benchmark expectations for when students are expected to develop certain skills has been developed for the entire professional curriculum. The Competency Timeline also defines the **graduation requirements** for clinical experiences.

Essential Functions/Technical Standards of a Dental Hygienist

In accordance with its professional and accreditation standards, the Dental Hygiene program has established technical standards as essential requirements. To be admitted and maintain enrollment, participate in, and successfully complete the professional program, a student must meet these non-academic standards of performance. *Essential Functions* are characteristics deemed necessary to become a professional, licensed, dental hygienist. They are evaluated continuously throughout the program in both clinical and didactic settings.

To be admitted to or continue in the Dental Hygiene Program a student must possess skills and abilities essential to perform as a dental hygienist. Students are required to perform dental hygiene services for patients in the clinical setting. The department is responsible for ensuring the safety of the patients, including completion of treatment within an acceptable amount of time and without significant regression of skills. With these considerations a dental hygiene student/candidate must be able to meet the following essential functions:

Physical Skills

Sit or stand; bend and reach while performing clinical procedures. Function in a structured environment for several hours. Demonstrate hand/eye coordination, manual dexterity, and tactile sensitivity necessary to manipulate a variety of instruments, materials, and equipment. Perform cardiopulmonary resuscitation and assist in emergency situations.

Sensory Skills

Read charts, records, small print, typed and handwritten notes. See with measurable depth perception and in low-light conditions. Distinguish color variations and discern shades of black and white. Hear and understand verbal directions. Discern sounds related to patient assessment and treatment. Distinguish smells of various drugs, solutions and materials used in healthcare settings. Feel subtle differences in surface textures. Recognize changes in patient status.

Cognitive Skills

Comprehend, analyze, and synthesize complex science and clinical findings. Apply prior learning to new situations. Concentrate on the task at hand amidst a variety of environmental distractions. Interpret patient findings, recognize anomalies, and make decisions which affect patient care. Use personal computers to complete assignments.

Communication Skills

Speak and write fluent English, including language comprehension skills that are essential for healthcare providers. Provide patients with clear instructions appropriate for their level of understanding. Write clear and legible chart notes. Organize thoughts and ideas into written essays and research papers. Understand, comprehend, and *effectively* communicate the English language with peers and patients; both in written and verbal formats at English Proficiency levels expected for healthcare providers.

Interpersonal Skills

Interact with individuals, small groups, and large audiences. Establish sufficient rapport and maintain appropriate boundaries to effectively relate to patients, colleagues, faculty, and staff. Always display a respectful attitude. Demonstrate concern and empathy for a diverse variety of patients. Address problems or questions to the appropriate person at the appropriate time.

Professional Skills

Present a professional appearance and maintain personal health. Maintain composure during stressful situations. Work both independently and as a team member. Organize tasks, set priorities, and manage projects. Maintain accuracy and confidentiality of patient records. Comply with established policies, procedures, infection control standards, Oregon Tech student conduct code, ADHA code of ethics and the class code of conduct. Provide care to all patients regardless of age, race, ethnic origin, physical or mental status or other condition.

Inability to Meet Essential Functions and Technical Standards

It is critical that each student understands if she/he does not perform to the expected level of professionalism, or posesse the technical standards required in each category of the "essential functions" they risk being dismissed from the Program. Appropriate "Essential Functions of a Dental Hygienist" must be demonstrated, not only in the classroom and clinic, but in the entire surrounding area, anywhere on or off campus when representing the university or Program.

If a student has an essential functions violation, a conference will be called with the student and the faculty. The result of this meeting will be

- counseling with a recommendation to change behavior
- a grade reduction in the associated course
- and/or a recommendation for dismissal from the program.

Admissions Procedures

Any student who meets the general admissions requirements may enroll in Pre-Dental Hygiene courses (freshman year). Students must be selected to enter the professional program (sophomore-senior year) through a separate application process. A limited number of seats are available in the professional program courses (sophomore, junior, and senior years).

The application deadline is in late March of the year prior to enrollment. To be eligible for admission into the Dental Hygiene Program the following minimum eligibility requirements must be met:

1. Applicants must have on file with the Oregon Tech Office of Admissions an official *Application for Admission* to Oregon Tech, accompanied by a $50 non-refundable fee and official transcripts of each college or university attended. Admission to Oregon Tech is independent of admission to the Dental Hygiene Program. All applicants to Oregon Tech are admitted as pre-dental hygiene majors until accepted into the dental hygiene program.
2. Applicants must have successfully completed or be in progress of completing all freshmen pre-dental hygiene courses. Introduction to Dental Hygiene (DHE 100 online) must be taken through Oregon Tech. Prerequisite (freshman) science, writing, and speech courses must be completed by the end of spring term, except for BIO 233, which may be extended into the summer but must be successfully completed prior to program entry in the subsequent fall term. Students are encouraged to work ahead and take courses in the summer to help offset credit loads during their regular academic terms while in the program.
3. Applicants must have a minimum cumulative 2.75 GPA in previous college work.
4. Applicants must complete a *Dental Hygiene Application for Admission*, related forms, and application fee of $75 to the Dental Hygiene department. Detailed information and instructions can be found on the Oregon Tech Dental Hygiene Program web page, www.oit.edu/dentalhygiene/how-to-apply.

Professional Development & Membership

Faculty and students are expected to maintain membership in the ADHA professional organization, attend regularly scheduled SADHA meetings, and to participate in professional development, such as local and regional conferences that lead to lifelong learning as defined in the Program Outcomes. **Students are required to join the student chapter of the American Dental Hygienists Association**. There is an annual fee for membership, and this is outlined in the anticipated expenses provided to students upon entry into the Dental Hygiene program.

Program Requirements

Dental hygiene students admitted to the Dental Hygiene Program (sophomore, junior, senior years) must purchase instruments, uniforms, and other supplies to be used during clinical practice and pay additional fees associated with dental hygiene courses. A background check, drug test, and proof of immunizations specific to healthcare workers are required prior to final admission into the professional program. Medical insurance coverage is required to be maintained throughout the program in case of exposure incidents.

Graduation Requirements

All courses listed in the curriculum for the catalog year a student begins a program must be fulfilled. Total credits required for graduation are: Bachelor of Science degree, 180. A minimum cumulative grade point average (GPA) of 2.0 is required for graduation. Students must maintain a grade of "C" or better in all Dental Hygiene required courses and demonstrate competency in all technical standards and Essential Functions of a Dental Hygienist to continue in the program.

Programs

BDH-BS_BDH-MAJOR - Dental Hygiene
BDH-ND_HAS-MAJOR - Dental Hygiene
BDHC-BS_BDHC-MAJOR - Dental Hygiene
BDHO-BS_BDHO-MAJOR - Dental Hygiene
BDHO-ND_HAS-MAJOR - Dental Hygiene
PDH-ND_HAS-MAJOR - Pre-Dental Hygiene Gen Study
PDH-PDH-MAJOR - Pre-Dental Hygiene Gen Study

Courses

AHED107 - Seminar
AHED207 - Seminar
AHED307 - Seminar
AHED407 - Seminar
AHED450 - Instructional Methods
AHED451 - Instructional Experience
AHED460 - Fund of Distance Education
DH107 - Seminar
DH207 - Seminar
DH221 - Clinical Prac & Seminar I
DH222 - Clinical Prac & Seminar II
DH223 - Clinical Prac & Seminar III
DH225 - Head/Neck,Histology,Embryology
DH240 - Prevention I
DH241 - Prevention II
DH242 - Prevention III
DH244 - General and Oral Pathology
DH252 - Oral Radiology I
DH253 - Oral Radiology II
DH254 - Introduction to Periodontology
DH266 - Dental Anatomy
DH267 - Emergency Procedures
DH275 - Dental Ethics
DH299 - Laboratory Practice
DH307 - Seminar
DH321 - Clincal Prac & Sem IV
DH322 - Clincal Prac & Sem V
DH323 - Clinical Prac & Sem VI
DH340 - Emerging Oral Health Topics
DH341 - Vulnerable Populations
DH344 - Adv General & Oral Pathology
DH351 - Pain Management I
DH352 - Pain Management II
DH354 - Periodontology
DH360 - Pharmacology for DH
DH363 - Dental Materials
DH366 - Dental Anatomy
DH370 - International Experience I
DH371 - International Experience II
DH372 - International Experience III
DH380 - Community Health I
DH381 - Comm Dentl Hlth II
DH382 - Comm Dentl Hlth III
DH399 - Lab Practice
DH401 - Overview Advanced Dental Hyg
DH405 - Pharmacology Review for DH
DH407 - Seminar
DH421 - Clinical Prac & Sem VII
DH422 - Clinical Prac & Sem VIII
DH423 - Clinical Prac & Sem IX
DH430 - Dental Hyg Board Review
DH453 - Res. & Evid. Based Dent. I
DH454 - Dental Prac Mgmt
DH455 - Res. & Evid. Based Dent. II
DH461 - Restorative Dentistry I
DH462 - Restorative Dentistry II
DH463 - Restorative Dentistry III
DH465 - Indep. Dental Hygiene Practice
DH467 - Restorative Func Endorsement
DH470 - Cmty. Asmt. & Program Planning
DH475 - EBDM in Healthcare I
DH476 - Applied Research Concepts
DH499 - Laboratory Practice
DHE100 - Intro to Dental Hygiene I
DHE207 - Seminar
DHE221 - Dental Hyg Clincal Pract I

Electrical & Renewable Energy Department

Degrees Offered

- Master of Science in Engineering - Multiple Specialties (Portland-Metro and Online)
- Master of Science in Renewable Energy Engineering (Klamath Falls, Online and Portland-Metro)

- Bachelor of Science in Electrical Engineering (Klamath Falls and Portland-Metro)
- Bachelor of Science in Electronics Engineering Technology (Portland-Metro)
- Bachelor of Science in Renewable Energy Engineering (Klamath Falls and Portland-Metro)

Dual Majors Offered

- Systems Engineering and Technical Management (Online)

Electrical Engineering, BS

The Bachelor of Science in Electrical Engineering (BSEE) at Oregon Tech is designed to prepare professionals to meet the needs of the growing Electrical Engineering industry. Electrical engineering is concerned with the use of electricity to transmit electric power, or to process information. Electrical engineers design, develop, test, and integrate electrical power systems and electrical machines, as well as electronic systems, including portable electronic devices, medical equipment, communication systems, radar and navigation systems, control and autonomous systems, to include robotics.

The program is designed around a set of core courses which provide a classical electrical engineering foundation, and a number of elective courses that allow students some flexibility to specialize in areas of particular interest, such as electronics, electrical power, optical engineering, renewable energy, etc. Emphasis is placed on practical application of engineering knowledge. The BSEE program at Oregon Tech can accommodate full-time students, transfer students, and working professionals, and provides a solid preparation for industry or graduate school.

Graduates of the Electrical Engineering Program are prepared to fulfill a wide range of functions within industry. Employers of electrical engineering graduates include research and development laboratories, electronic equipment manufacturers, public utilities, colleges and universities, government agencies, medical laboratories and hospitals, electronic equipment distributors, and semiconductor companies, among others.

The program also provides a solid preparation for students intending to continue to graduate school to pursue master's degrees in engineering, engineering management, MBAs, and JDs.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Student Preparation

Students entering the Electrical Engineering program from high school should have a minimum of: 1) Two years of high-school algebra and one year of high-school geometry and trigonometry. 2) Two years of physical science (physics, chemistry preferred). 3) Three years of English composition. Additional mathematics, science, English, electronics, and computer languages are helpful.

Students entering the Electrical Engineering program by transfer are requested to contact the department concerning transfer of technical coursework.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The BSEE program is accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Electrical Engineering (Post-Baccalaureate)

Oregon Tech Bachelor of Science in Electronics Engineering Technology graduates may complete 36 additional credits to receive a Bachelor of Science in Electrical Engineering (post-baccalaureate). Students will receive two diplomas: a BSEET degree (upon completion of the BSEET degree requirements), and a BSEE degree (upon completion of the BSEE degree requirements, which include a minimum of 36 credits from Oregon Tech beyond the BSEET requirements).

Students who have completed an ABET accredited BS degree in Electronics Engineering Technology from another university must complete a minimum of 45 Oregon Tech credits to receive the BS in Electrical Engineering from Oregon Tech. Students pursuing this option should contact an academic advisor to draft an academic plan that ensures all BSEE curriculum requirements are met.

Bachelor of Science in Electrical Engineering with a Dual Major

Students completing the BSEE program have the option of selecting a dual major. The EERE department currently offers a dual major in Systems Engineering & Technical Management. Students completing a BSEE degree with a dual major will receive a single BS degree with both majors listed on their diploma and transcript. The degree is issued upon completion of the requirements for each major (some courses may be used to meet the requirements for both majors). The requirements for the dual major in Systems Engineering & Technical Management are listed under the corresponding sections of the catalog.

Concurrent Degree in Electrical Engineering and Renewable Energy Engineering

The EERE Department provides the opportunity for interested and motivated students to earn two Bachelor of Science degrees concurrently: a BS in Electrical Engineering & BS in Renewable Energy Engineering. The purpose of this concurrent degree is to provide the top students with a challenging academic program that will prepare them for career opportunities in the electronics, electrical engineering, power, and energy industries. The students receive a BS degree in a classical engineering discipline (Electrical Engineering), as well as an emerging high growth discipline (Renewable Energy Engineering). This concurrent degree program takes approximately an additional year beyond the BSEE degree program (or 4.5 years total by taking courses in Summer term).

Concurrent Accelerated MSREE/BSEE

Students may earn both MSREE and BSEE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSEE program who have a proven record of academic excellence have the option of completing the MSREE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must contact the MSREE Program Director for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSEE and MSREE degrees at the end of their fifth year. The graduate project requirement must be met by a design project supervised and approved by both EE and REE advisors. Students should contact their academic advisors for details.

Concurrent Accelerated MSE/BSEE

Students may earn both MSE and BSEE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSEE program who have a proven record of academic excellence have the option of completing the MSE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must apply for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSEE and MSE degrees at the end of their fifth year. Students pursuing this option gain some efficiency by using graduate-level coursework and a graduate project to also satisfy undergraduate coursework and senior capstone project requirements. Students can contact the MSE program director for details.

Electronics Engineering Technology, BS

Oregon Institute of Technology offers an ABET accredited Bachelor of Science degree in Electronics Engineering Technology (BSEET). The program is conveniently offered at the Oregon Tech Portland-Metro campus, with courses offered in the evenings and online in order to accommodate degree seeking professionals working for high-tech companies in the Portland Westside area. The Willow Creek Center is located in Hillsboro (OR), at the heart of the Portland Westside high-tech industry cluster (Silicon Forest), minutes away from companies such as Intel, Tektronix, Maxim Integrated, Credence, Synopsis, Qorvo, and others. Some of the core and technical elective courses for the degree are also available online and at the Oregon Tech Portland-Metro campus.

Career Opportunities

Electronics Engineering Technology is concerned with theory, concepts, and practice of applied electronics engineering. Emphasis is placed on the practical application of engineering knowledge. As a result, the Electronics Engineering Technology graduate possesses a combination of theoretical and practical understanding and requires minimal on-the-job training.

The BSEET program is designed to prepare graduates to assume engineering and technology positions in the electronics industry. Graduates of the BSEET program fulfill a wide range of functions within industry, typically assuming positions such as component and system design, test engineering, product engineering, field engineering, manufacturing engineering, sales or market engineering, quality control engineering, and other similar roles. The program also provides a solid preparation for students intending to continue to graduate school to pursue master's degrees in engineering, engineering management, and MBAs.

Employers of Electronics Engineering Technology graduates include research and development laboratories, electronic equipment manufacturers, public utilities, colleges and universities, government agencies, medical laboratories and hospitals, electronic equipment distributors, semiconductor companies, and automated electronic controlled processing companies. Recent graduates have been employed at companies such as MAXIM, Tektronix, Qorvo, MSEI/Biotronik, Intel and others.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Student Preparation

The BSEET degree at Oregon Tech is designed to accommodate working professionals with evening delivery of upper-division and custom bridging courses. It is especially suited for working professionals with an associate degree in Electronics Engineering Technology, Microelectronics Technology, or equivalent coursework. Students entering the BSEET program by transfer are requested to contact the BSEET Program Director concerning transfer of technical coursework. The BSEET program has articulation and transfer agreements with the Electronics, Microelectronics, and Renewable Energy Technology programs at various community colleges in Oregon. Students transferring to Oregon Tech with an AAS degree from these programs will not be required to take any lower-division electronics coursework. It is recommended (but not required) that students who are transferring with an AAS degree have completed Calculus II prior to transferring to the BSEET program at Oregon Tech, since Integral Calculus is a prerequisite for most upper-division BSEET courses.

We encourage transfer students to start the advising process with Oregon Tech upon completion of the first year of their AAS degree.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The Electronics Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Electrical Engineering (Post-Baccalaureate)

Oregon Tech Bachelor of Science in Electronics Engineering Technology graduates may complete 36 additional credits to receive a Bachelor of Science in Electrical Engineering (post-baccalaureate). Students will receive two diplomas: a BSEET degree (upon completion of the BSEET degree requirements), and a BSEE degree (upon completion of the BSEE degree requirements, which include a minimum of 36 credits from Oregon Tech beyond the BSEET requirements).

Students who have completed an ABET accredited BS degree in Electronics Engineering Technology from another university must complete a minimum of 45 Oregon Tech credits to receive the BS in Electrical Engineering from Oregon Tech. Students pursuing this option should contact an academic advisor to draft an academic plan that ensures all BSEE curriculum requirements are met.

Renewable Energy Engineering

Degrees Offered

- Master of Science in Renewable Energy Engineering
- Bachelor of Science in Renewable Energy Engineering
- Bachelor of Science in Renewable Energy Engineering and Systems Engineering & Technical Management (dual major)
- Bachelor of Science in Renewable Energy Engineering and Bachelor of Science in Electrical Engineering (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Bachelor of Science in Environmental Science (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Master of Science in Engineering (concurrent degree)
- Bachelor of Science in Renewable Energy Engineering and Master of Science in Renewable Energy Engineering (concurrent degree)

Note: The BS Renewable Energy Engineering is offered in both the Klamath Falls and Portland-Metro campuses. The different degree options (dual majors, concurrent degrees, etc.) may vary by campus. The MS Renewable Energy Engineering is offered at both the Klamath Falls and Portland-Metro campuses.

Career Opportunities

Program graduates will enter energy careers as power engineers, PV/semiconductor processing engineers, facilities and energy managers, energy system integration engineers, HVAC and M/E/P engineers, design and modeling engineers for net-zero energy buildings, biofuels plant and operations engineers, energy systems control engineers, power electronics engineers, utility program managers, as well as renewable energy planners and policy makers. Graduates of the program will be able to pursue a wide range of career opportunities, not only within the emerging field of renewable energy, but within more traditional areas of energy engineering as well.

Employers of Renewable Energy Engineering graduates include consulting engineering firms, fuel cell manufacturers, power converter manufacturers, public utilities, government agencies, photovoltaic manufacturers, and energy developers. Recent graduates have been employed at companies such as Advanced Energy, Jacobs Engineering, Power Engineers, and Iberdrola Renewables.

Bachelor of Science in Renewable Energy Engineering

The Bachelor of Science in Renewable Energy Engineering (BSREE) prepares students for the challenges of designing, promoting and implementing renewable energy engineering in societies rapidly changing energy-related industries. Energy, in its many abundant forms, is the driving physical factor upon which industrial societies are founded. As geopolitical, environmental and geological factors act to constrain traditional resources, societies have been forced to re-think and redevelop their energy infrastructures. Renewable energy resources include solar thermal collectors, photovoltaics, ground-source heat pumps, geothermal resources, hydroelectric power, wind power, tidal and wave power, bio-energy, and fuel cells. Oregon Tech's Bachelor of Science in Renewable Energy Engineering prepares students for success in these rapidly developing fields.

The BSREE program is built upon a solid foundation in physics, chemistry, mathematics and communications. Added to this foundation are courses in electrical and mechanical engineering that establish a firm understanding of the fundamentals of energy. The engineering coursework prepares students for renewable energy-specific courses such as photovoltaics, wind power, biofuels, hydroelectric, fuel cells and solar thermal systems. These courses are then integrated into system-wide senior level courses such as energy system design, energy-efficient building systems, renewable energy transportation systems, energy management and energy systems control.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Student Preparation

High school students should be prepared to start their college academic work with at least college calculus and Freshman English composition. Typically, this means the successful new student has completed:

1. Four years of high school mathematics including algebra I and II, geometry and trigonometry
2. Four years of English composition/writing
3. Four years of science including physics and chemistry

Students entering the program by transfer are requested to contact the program director for evaluation of REE-related transfer courses.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

The Renewable Energy Engineering baccalaureate program is accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc., http://www.abet.org. ABET is a specialized accrediting board recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education.

Bachelor of Science in Renewable Energy Engineering with a Dual Major

Students completing the BSREE program have the option of selecting a dual major. The EERE department currently offers a dual major in Systems Engineering & Technical Management. Students completing a BSREE degree with a dual major will receive a single BS degree with both majors listed on their diploma and transcript. The degree is issued upon completion of the requirements for each major (some courses may be used to meet the requirements for both majors). The requirements for the dual major in Systems Engineering & Technical Management are listed under the corresponding sections of the catalog.

Concurrent Degree in Renewable Energy Engineering and Electrical Engineering

The EERE Department provides the opportunity for interested and motivated students to earn two Bachelor of Science degrees: a BS in Renewable Energy Engineering and a BS in Electrical Engineering. The purpose of this concurrent degree is to provide the top students with a challenging academic program that will prepare them for career opportunities in the electronics, electrical engineering, power and energy industries. The students receive a BS degree in a classical engineering discipline (Electrical Engineering), as well as an emerging high-growth discipline (Renewable Energy Engineering). The degree program will take an additional year beyond the BSREE degree program (or 4.5 years total by taking courses in Summer term.)

Concurrent Degree in Renewable Energy Engineering and Environmental Sciences

Renewable Energy Engineering students have the opportunity to earn a concurrent degree: a BS in Renewable Energy Engineering and a BS in Environmental Sciences. The additional degree requires 54 credits in Environmental Sciences courses, which can be taken concurrent to Renewable Energy Engineering courses or in an add-on year. A second degree in Environmental Sciences places engineering projects in the context of environmental impacts and environmental regulations, and greatly increases job opportunities for Oregon Tech Renewable Energy Engineering graduates. The purpose of the concurrent programs is to challenge motivated students to become even better prepared for the engineering and environmental job markets.

Concurrent Accelerated MSE/BSREE Program

Students may earn both MSE and BSREE degrees, awarded simultaneously upon completion of this curriculum. Students enrolled in the BSREE program who have a proven record of academic excellence have the option of completing the MSE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must apply for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSREE and MSE degrees at the end of their fifth year. Students pursuing this option gain some efficiency by using graduate-level coursework and a graduate project to also satisfy undergraduate coursework and senior capstone project requirements. Students can contact the MSE program director for details.

Concurrent Accelerated MSREE/BSREE Program

Students may earn both MSREE and BSREE degrees, awarded simultaneously upon completion of this curriculum. Students who enrolled in the BSREE program who have a proven record of academic excellence have the option of completing the MSREE with one additional year of coursework.

To be eligible for this option, students must have a cumulative GPA of 3.0, and must contact the MSREE Program Director for admission into the graduate program by the end of Spring term of their junior year. Students will receive both their BSREE and MSREE degrees at the end of their fifth year. The graduate project requirement must be met by a design project supervised and approved by an REE advisor. Students should contact their academic advisors for details.

Master of Science in Engineering - Multiple Specialties

The Master of Science in Engineering (MSE) is a highly customizable and modular MS program. There are multiple specialties or tracks available based on student interest. Under the supervision of an academic advisor, students are also able to choose coursework from multiple disciplines to design specialties typically not available in the classical engineering disciplines. Consequently, MSE students have the ability to customize the MSE to be highly relevant to their professional interest. The flexibility to design a specialized or multidisciplinary degree program, while maintaining practical focus and academic rigor, is the defining element of the program and is what makes it such a close match to the interdisciplinary environment in today's fast changing industries. This ensures a relevant, up-to-date educational experience, and the ability to meet urgent industry needs in multidisciplinary technical fields. Depending on their interest and career goals, students can choose a multidisciplinary MSE, a specialized MSE, or a more classical MSE program, such as the MSE in Electrical Engineering. The MSE program can accommodate full-time students or working professionals.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Admission Requirements

In addition to Oregon Tech's graduate admission requirements, admission to the MS Engineering (MSE) program requires a BS degree in engineering, physical science, or related technical field. Applicants who do not meet this requirement and apply for admission may be asked to complete a series of undergraduate "bridge" courses prior to formal admission (contact MSE program director for details). Students enrolled in a bachelor's degree program in engineering or engineering technology at Oregon Tech may apply for admission to the accelerated BS + MSE program at the end of their junior year (students interested in this accelerated program are encouraged to contact the MSE program director for details).

MSE/BS Concurrent Fast Track Degree (5 year Program)

Students enrolled in the EERE BS programs (BSEE, BSEET, BSREE) are eligible to apply for the concurrent Fast Track BS/MSE program. This enables students to potentially obtain both the BS and MS degrees in 5 years.

MSE Coursework & Specialties

Students can complete a multidisciplinary program by taking courses in Systems Engineering, Research Methods & Innovation (covering peer-reviewed research, IP fundamentals, and technology commercialization), and one or more engineering disciplines including Electrical & Computer Engineering.

Multidisciplinary MSE Program

- MSE (Multidisciplinary)
- MSE in Systems Engineering

Engineering Discipline MSE Program

- MSE in Electrical Engineering

Specialized MSE Programs

- MSE in Power Engineering

Accreditation

Oregon Institute of Technology is accredited by the Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052-3981, an institutional accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education.

Master of Science in Renewable Energy Engineering (MSREE)

The Master of Science in Renewable Energy Engineering (MSREE) program is offered at both the Klamath Falls and Portland-Metro campuses. The MSREE program accommodates both full-time students and working professionals. The program is designed to prepare graduates to be energy engineering professionals who have advanced knowledge and skills that enable them to assume a broad range of technical leadership roles.

The MSREE curriculum is built upon core tracks in research methods & innovation and advanced energy engineering. These courses provide the foundation for three required specialized course sequences in renewable energy technologies and nine credits of thesis or graduate R&D project work.

In the second year of the program, students demonstrate mastery on a renewable energy-related topic through REE 596/597/598 - Graduate Thesis or Project Thesis. A thesis answers a question using scientific methods. Projects solve a problem using the engineering design process. In both cases, there should be an element of novelty in students work. Students who have previously received a BS in Engineering from an ABET accredited program may opt for either a Thesis or Project path, or a coursework only path in which REE 596/597/598 - Graduate Thesis or Project Thesis is substituted by technical courses.

Student Preparation

Students should be prepared to start graduate academic work. Typically, this means the successful new student has the following:

1. A baccalaureate degree in engineering, the physical sciences (e.g., physics, chemistry), or a related technical discipline
2. Evidence of potential for graduate academic work, success or potential for success in industry, and demonstrated interest in energy engineering

Accreditation

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Programs

BDER-BS_BDER-MAJOR - Dual Elec/Renewable Energy Eng
BDRE-BS_BDRE-MAJOR - Dual Renewable Energy/Elec Eng
BDRN-BS_BDRN-MAJOR - Dual Renewable Energy/Env Sci
BEE-BS_BEE-MAJOR - Electrical Engineering
BEE-ND_ETM-MAJOR - Electrical Engineering
BEET-BS_BEET-MAJOR - Electronics Engineering Tech
BEET-ND_ETM-MAJOR - Electronics Engineering Tech
BREE-BS_BREE-MAJOR - Renewable Energy Engineering
CPSE-C_CPSE_GR-MAJOR - Power Systems Engineering
CSEE-C_CSEE_GR-MAJOR - Systems Engineering

MREE-MS_MREE-MAJOR - Renewable Energy Engineering

Courses

EE107 - Seminar
EE131 - Digital Electronics I
EE133 - Digital Electronics II
EE207 - Seminar
EE221 - Circuits I
EE223 - Circuits II
EE225 - Circuits III
EE307 - Seminar
EE320 - Adv Circuit Systems Analysis
EE321 - Electronics I
EE323 - Electronics II
EE325 - Electronics III
EE331 - Digital System Design w/HDL
EE333 - Intro to Microcontrollers
EE335 - Advanced Microcontrollers
EE341 - Electricity/Magnetism w/Transm
EE343 - Solid State Electronic Devices
EE401 - Communication Systems
EE407 - Seminar
EE419 - Power Electronics
EE430 - Linear Sys & Digital Signal
EE432 - Advanced Digital System Design
EE435 - Embedded Systems
EE448 - Geometric Optics
EE460 - Comput Data Science & Big Data
EE461 - Cntrl Engr I:Classical Methods
EE462 - RF/Wireless Systems
EE485 - Printed Circuit Board Design
EE501 - Communication Systems
EE507 - Seminar
EE519 - Power Electronics
EE524 - Advanced Control Engineering
EE530 - Linear Sys & Digital Sig Prcsg
EE532 - Advanced Digital System Design
EE535 - Embedded Systems Hardware
EE548 - Geometric Optics
EE552 - Waveguides & Fiber Optics
EE561 - Ctrl Engr I: Classic Methods
EE585 - Printed Circuit Board Design
EE597 - Graduate Project
EE598 - Graduate Thesis
EET000 - EET Lower Division Elective
EET301P - Topics in Network Analys
ENGR102 - Intro to Engineering II
ENGR236 - Fund of Elec Circuits
ENGR267 - Engineering Programming
ENGR305 - Nanoscience & Nanotech
ENGR420 - Engr Mdlng & Sim of Dyn Sys
ENGR421 - Automation for Robotics
ENGR423 - MC in Mechanisms & Robotics
ENGR424 - Advanced Control Engineering
ENGR461 - Engr Mdlng & Sim of Dyn Sys
ENGR462 - Cntrl Engr II: Modern Methods
ENGR463 - MC in Mechanisms & Robotics
ENGR464 - Autonomous Systems

MSE-MS_MSE-MAJOR - Engineering

ENGR465 - Capstone Project
ENGR511 - Res. Methods & Innovation: IP
ENGR512 - Res Meth & Innov: Res Meth
ENGR513 - Res Meth & Innov: Strat & Inno
ENGR520 - Engr Modeling & Sim of Dyn Sys
ENGR521 - Automation Systems
ENGR523 - MC in Mechanisms and Robotics
ENGR524 - Advanced Control Engineering
ENGR535 - Embedded Systems I
ENGR555 - Embedded Systems II
ENGR561 - Modeling & Sim of Dyn Systems
ENGR562 - Ctrl. Engr. II: Modern Methods
ENGR563 - Motion Ctrl in Mech & Robotics
ENGR596 - Grad Research & Development
ENGR597 - Graduate Project
ENGR598 - Graduate Thesis
PHY449 - Radiometry & Optical Detect
PHY549 - Radiometry & Optical Detection
REE107 - Seminar
REE201 - Intro to Renewable Energy
REE207 - Seminar
REE221 - LabView Programming
REE243 - Electrical Power
REE253 - Electromech Energy Conversion
REE307 - Seminar
REE315 - Digital Logic
REE331 - Fuel Cells
REE333 - Batteries
REE335 - Hydrogen
REE337 - Materials for RE Applications
REE344 - Nuclear Energy
REE345 - Wind Power
REE348 - Solar Thermal Energy Systems
REE407 - Seminar
REE412 - Photovoltaic Systems
REE413 - Electric Power Conv Systems
REE439 - Energy Systems Auditing & Mgt
REE453 - Power System Analysis
REE454 - Power Sys Protection & Control
REE455 - Energy Efficient Building Dsgn
REE463 - Energy Systems Instrumentation
REE469 - Grid Integration of Renewables
REE487 - Electric Vehicles I
REE488 - Electric Vehicles II
REE489 - Electric Vehicles III
REE507 - Seminar
REE511 - Research Methods/Innovation I
REE512 - ResearchMethods/Innov II
REE513 - Research Methods/Innov III
REE515 - Energy Engineering I
REE516 - Energy Engineering II
REE517 - Energy Engineering III
REE525 - Solid-State Physics/Photov Mat
REE529 - Power System Analysis
REE533 - Heating, Ventilation/Air Condi

REE545 - Applied Photovoltaics
REE549 - Power Sys Protection & Control
REE553 - Energy Systems Mgmt/Auditing
REE565 - Semiconductor Process Enginrng
REE569 - Grid Integration of Renewables
REE573 - Energy-Efficient Bldg Design
REE581 - Energy Storage Fundamentals
REE582 - Introduction to Batteries
REE583 - Intro to Fuel Cells
REE587 - Advanced Electric Vehicle I
REE588 - Advanced Electric Vehicle II
REE589 - Advanced Electric Vehicle III
REE591 - Hydrogen Prod & Storage
REE592 - Advanced Batteries
REE593 - Advanced Fuel Cells
REE599 - Graduate Reading & Conference
SEM421 - Systems Engineering
SEM422 - Advanced Systems Engineering
SEM425 - Advanced Engineering Mgmt
SEM507 - Seminar
SEM521 - Systems Engineering
SEM522 - Advanced Systems Engineering
SEM525 - Advanced Engineering Mgmt

Emergency Medical Services Department

Degrees Offered

- Associate of Applied Science (AAS) in Paramedic (joint degree through Oregon Tech and OHSU).
- Bachelor of Science (BS) of Emergency Medical Services Management (joint degree through Oregon Tech and OHSU).

Program Learning Outcomes

EMT Program Learning Outcomes

- Recognize the nature and seriousness of the patient's condition and/or extent of injuries to assess requirements for emergency medical and trauma care
- Administer appropriate emergency medical care based on traumatic assessment findings of the patient's condition
- Administer appropriate emergency medical care based on assessment findings of the patient's condition
- Lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury
- Perform safely and effectively the expectations of the job description
- Perform the expectations of a 911 EMT safely and effectively.

Paramedic Program Learning Outcomes

- Comprehend, apply, and evaluate information relative to the role of an entry-level Paramedic.
- Demonstrate technical proficiency in all of the skills necessary to fulfill the role of an entry-level Paramedic.
- Demonstrate personal behaviors consistent with professional and employer expectations of an entry level Paramedic.

BS in EMS Management Learning Outcomes

- Foster professional growth in communication, teamwork, ethics, inquiry and analysis, quantitative literacy, and diversity.
- Prepare students to advance their professional medical training in all the major areas of pre-hospital clinical practice.
- Develop an awareness and practice of current EMS management challenges.

Career Opportunities

The EMS department provides a full spectrum of pre-hospital training programs and degrees, jointly offered by OHSU and Oregon Tech, starting from your very first EMS or general education course all the way through to completing your bachelor's degree, all created with collaboration from local and national industry leaders including:

- Emergency Medical Technician (EMT) Training and Certification
- Paramedic Training (AAS degree & Nationally Accredited)
- Critical Care Paramedic Training
- Community Care Paramedic / Mobile Integrated Health care Training
- EMS Management (Bachelor's degree)

Depending on your career aspirations, graduates find career employment in a variety of settings including ambulance transport agencies, fire and rescue agencies, air-medical transport agencies, medical support for industrial sites, tactical-medical teams, hospitals, and international aid missions, to name just a few.

The EMT and Paramedic program prepares students for entry positions in the pre-hospital medicine profession. Upon successful completion of the program, graduates are eligible to sit for the National Registry examination, which can lead to both national and state certifications.

Accreditation

While all programs at the university are accredited by the Northwest Commission on Colleges and Universities (NWCCU), where it is available and adds value to our students, our EMS programs offer additional programmatic accreditation. The Paramedic program is nationally 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).

Admission Requirements

All courses offered by the EMS department require only general Oregon Tech admission with one exception: the second year of the Paramedic degree. Due to the large number of applications and relatively limited number of student positions, the second year of the paramedic degree is a competitive application process requiring a separate admissions step, further described on the Oregon Tech website (www.oit.edu/paramedic).

Whether you're an incoming freshman or preparing to transfer into one of our programs, students have been most successful when they focus and excel in the following three areas:

- Strong academic performance overall with an emphasis on science coursework performance
- Experience in providing pre-hospital care (e.g. volunteer, intern, BLS transports, etc.) ideally with hands-on direct patient care
- Strong customer service experience with the public

All prospective students are encouraged to meet with the EMS department Program Coordinator to review transcripts and develop a customized plan to get started.

Programs

APEP-AAS_APEP-MAJOR - EMT - Paramedic
BEMS-BS_BEMS-MAJOR - Emergency Medical Services Mgt
PPEP-PPEP-MAJOR - Pre-Paramedic Gen Study

Courses

EMS107 - Seminar
EMS115 - Introduction to EMS
EMS150 - Accelerated EMT
EMS151 - Emerg Med Tech (EMT) I
EMS152 - Emerg Med Tech (EMT) II
EMS190 - EMT Externship
EMS207 - Seminar
EMS211 - Prehospital Emerg Pharmacology
EMS218 - Trauma Emergencies
EMS231 - Medical Emergencies
EMS232 - Medical Emergencies II
EMS235 - Basic Electrocardiography
EMS236 - Advanced Electrocardiography
EMS237 - Paramedic 12-Leads
EMS241 - Paramed Crisis Resrce Mgmt I
EMS242 - Paramed Crisis Resrce Mgmt II
EMS243 - Paramed Crisis Resrce Mgmt III
EMS271 - Paramedic Skills Lab I
EMS272 - Paramedic Skills Lab II
EMS273 - Paramedic Skills Lab III
EMS283 - Clinical Practicum I
EMS284 - Clinical Practicum II
EMS291 - Paramed Capstone I
EMS292 - Paramed Capstone II
EMS307 - Seminar
EMS331 - Critical Care Transport
EMS332 - Critical Care Transport II
EMS382 - Critical Care Clinic Practicum
EMS407 - Seminar
EMS444 - EMS Systems, Lead & Mgt
EMS456 - Research Methods in EMS
EMS496 - EMS Capstone Project I
EMS497 - EMS Capstone Project II

Health Sciences Department

Degrees Offered

- Doctorate of Physical Therapy
- Master of Science in Allied Health
- Bachelor of Science in Respiratory Care
- Bachelor of Science in Respiratory Care, Degree Completion
- Associate of Applied Science in Sleep Health, Clinical Sleep Health Option
- Associate of Applied Science in Sleep Health, Polysomnographic Technology Option
- Certificate in Clinical Sleep Health
- Certificate in Polysomnographic Technology

Doctor of Physical Therapy

Program Purpose and Mission Statement

The Doctor of Physical Therapy (DPT) is a joint Oregon Tech and Oregon Health & Science University (OHSU) program that will provide a comprehensive entry-level and post-baccalaureate DPT education, with the unique focus of preparing high quality graduates with the skills to become practitioners of choice and leaders in rural physical therapy practice. The DPT program will ensure graduates develop competence in the diagnosis and treatment of patients with health or medical conditions that may affect movement and mobility.

Graduates will complete all eligibility requirements to sit for the state licensure exam and will be prepared for employment as autonomous practitioners in a variety of clinical settings.

Program Learning Outcomes:

Graduates of the Oregon Tech and OHSU DPT program will:

1. Be proficient to practice as effective, efficient, and safe autonomous practitioners.

a. Achieve 100% ultimate pass rate on the National Physical Therapy Examination.

b. Engage in self-directed practice grounded in contemporary evidence and research; demonstrate exemplary critical thinking to meet patient needs; and engage in interprofessional practice to optimize patient outcomes.

c. Practice physical therapy in accordance with the American Physical Therapy Association Standards of Practice, state laws, and federal laws in direct access environments.

d. Supervise, manage, and instruct support personnel, including the delegation of appropriate tasks.

2. Demonstrate empathetic and compassionate practice.

a. Adhere to the American Physical Therapy Association Code of Ethics.

b. Respect and treat each patient as an individual, regardless of gender, race, color, sexual orientation, or religious affiliation.

c. Demonstrate ability to safely provide appropriate patient-centered care, interpreted as practicing ethically and professionally, with cultural competence/sensitivity.

d. Act as patient advocate, educator, and consultant in diverse settings.

3. Demonstrate commitment to the physical therapy profession.

a. Serve as leaders who assume multiple roles, including scholarly activities, which have a positive impact on the profession and the community.

b. Demonstrate dedication, integrity, and a lifelong commitment to learning and professional development.

Accreditation

The Doctor of Physical Therapy Program is accredited by Commission on Accreditation in Physical Therapy Education. CAPTE is an accrediting agency that is nationally recognized by the US Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA). CAPTE grants specialized accreditation status to qualified entry-level education programs for physical therapists and physical therapist assistants. The Doctor of Physical Therapy program's accreditation status is "Developing Program" which hat has officially notified the Department of Accreditation that a Program Director has been employed. Developing programs are in the early stages of development; no students have been admitted.

Career Opportunities

Throughout Oregon and the Pacific Northwest, there is a high demand for qualified physical therapists. Shortages in the physical therapy (PT) field are even more acute in the state's many rural areas. In a time when proactive care is the mantra and approach of the U.S. healthcare system, and demand from patients continues to grow, PT is becoming an even larger field within Oregon and the nation.

There are many career paths for physical therapists. Listed are some you may not have considered.

Hospital and inpatient rehabilitation facilities

Outpatient facilities

Skilled nursing facilities

Pediatric physical therapy

Sports physical therapy

Clinical research

Entrepreneurship

Admissions Procedures

The application process for summer admission to the OIT/OHSU Doctor of Physical Therapy (DPT) program will open July 1, 2024 at 11:59pm. The OIT/OHSU DPT program plans to participate in the Physical Therapist Centralized Application Service, known as PTCAS, in the 2024-23 admissions cycle. Applicants applying to the OIT/OHSU physical therapist education program for the 2024 entering class will apply online using the PTCAS application beginning July 1, 2024. To learn more about PTCAS, visit www.ptcas.org. Applications will be due November 1, 2024. Applicants must be U.S. citizens or permanent residents who currently and will continue to reside in the U.S. for the entirety of the program. They must also satisfy all requirements, which include:

1. Bachelor's Degree

Applicants must hold a bachelor's degree from a regionally accredited college or university by the date of program enrollment, which is in Summer Session of each year.

2. Minimum Cumulative and Prerequisite GPAs of 3.0

The minimum cumulative GPA is 3.0 and the minimum prerequisite GPA is 3.0. Higher GPAs will be more competitive within the applicant pool.

3. Pre-requisites

- All prerequisite courses must be completed prior to matriculation, although an application may be submitted prior to completing all prerequisite coursework. Only 1 prerequisite course may be in progress in the spring semester prior to matriculation.
- All courses must be acceptable for science majors or for pre-health professions majors.
- Courses described as "survey" will not be accepted as prerequisites.
- Grades of "C" or better are required in all prerequisite courses, as outlined below.
- Prerequisite courses taken on a "pass/no pass" basis will not be accepted.
- All science coursework must have been completed within 7 years of the intended year of entry.
- Advanced Placement (AP) courses will not be accepted as prerequisites for Chemistry, Physics, or Anatomy & Physiology. One AP course can be applied to the statistics prerequisite course OR to one of the psychology prerequisite courses (only one AP course can be utilized).

Biological Sciences:

- A one-year biology series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits
- BIO 211+212+213 at Oregon Tech, or comparable coursework elsewhere
- A one-year human anatomy & physiology series with labs OR one semester of anatomy (with lab) and one semester of physiology (with lab) designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
- BIO 231+232+233 or BIO 331+332+333 at Oregon Tech, or comparable coursework elsewhere

Chemistry:

- A one-year general chemistry series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
- CHE 221+222+223 at Oregon Tech, or comparable coursework elsewhere

Physics:

- A one-year general physics series with labs designated for science majors or pre-health professions (12 quarter credits or 8 semester credits).
- PHY 221+222+223 at Oregon Tech, or comparable coursework elsewhere. An Algebra-based physics course series is also acceptable.

Mathematics:

- 1 semester each of pre-calculus and statistics (6 credits total).

Psychology:

- 3 quarter courses OR 2 semester courses (6 credits total).

Social Sciences:

- 3 quarter courses or 2 semester courses (6 credits total).

English:

- 3 quarter courses or 2 semester courses (6 credits total).

Program Requirements

Students admitted to the DPT program must purchase instruments and other supplies to be used during clinical practice and pay additional fees associated with DPT course work. A background check, drug test, and proof of immunizations specific to healthcare workers are required prior to final matriculation into the professional program.

Graduation Requirements

All courses listed in the curriculum for the catalog year a student begins the DPT program must be fulfilled. Total credits required for graduation are: Doctor of Physical Therapy 163. A minimum cumulative grade point average (GPA) of 3.0 is required for graduation. All clinical experience courses must be successfully completed with the minimum level of competency set by the program.

Licensure

Graduation from the Oregon Tech-OHSU accredited Doctor of Physical Therapy program provides you the qualification to sit for the National Physical Therapist Exam (NPTE) jointly organized by the Oregon Board of Physical Therapy (OBPT) and the Federation of State Boards of Physical Therapy (FSBPT). In addition, you will be qualified to take the Oregon Pain Commission's Pain Management Module and to sit for the Oregon Jurisprudence Assessment Module (OR JAM) both required for your Oregon PT License. Should you wish to apply for licensure in another state or jurisdiction, you would need to determine those state jurisprudence requirements. The program will assist each graduate in obtaining the information required for the specific state exams and registration for the required modules and the NPTE.

Academic Performance Standards

Minimum Grade Requirements

To make satisfactory academic progress within the Department of Physical Therapy Education,

students must:

1. Receive a passing grade of "C+" or better in graded courses or "pass" in pass/fail

courses in each course required in the physical therapy curriculum.

2. Maintain an overall grade point average of 3.0 or better in each semester of the

program and cumulatively throughout the curriculum

Academic Probation:

Any student:

1. whose term grade point average is below 3.00 for a single term or,

2. any student whose cumulative grade point average is below 3.00 or,

3. any student who receives a final course grade of "C" or below in any course or,

4. any student who receives a "fail" grade in a pass/fail course

will be placed on academic probation. A student on academic probation will be required to

complete a formal remediation plan agreed upon and signed by both the student and the

Program Director or designee. If the remediation plan is not successfully completed in the

specified time frame, the student may be subject to further disciplinary actions.

Academic Suspension:

When a student's academic performance does not provide evidence of satisfactory progress

toward meeting degree requirements, a temporary separation from the University is required.

After a suspension is completed, students may apply for readmission by complying with

reinstatement criteria.

Students may be placed on academic suspension if:

1. their cumulative GPA is below 2.00 and/or

2. they earn a third grade below "C+" and/or

3. they have previously been placed on academic probation without demonstrating

satisfactory academic progress on their remediation plan.

Master of Science in Allied Health

The MSAH program supports Oregon Tech's mission to offer rigorous applied degree programs by providing scholarly, research and evidence based, high quality coursework (aligned with the National Center for Healthcare Leadership guidelines) ensuring student success in the work place.

The discipline of allied health leadership in health care settings involves effective communication, building relationships, self-confidence, self-development, team leadership, change leadership, accountability, collaboration, organizational development, performance measurements, financial skills, innovative thinking and strategic orientation. The MSAH curriculum emphasizes strong foundational course work and hands-on application through real life health care cases to prepare students to be effective professionals in their communities. Typical students in the program are already employed and are working to advance their degrees and career opportunities in leadership, management, and administration of public health systems, health care systems, hospitals, and hospital networks.

Master of Science Program Description

The Department of Medical Imaging Technology offers a Master of Science in Allied Health, which is fully an online degree for students who hold a Bachelor's degree and are working in a health care setting. The program will focus on preparing allied health professionals for advancement in management, education and administration in their respective health care disciplines.

Physical Education and Health Education

Minor Offered

- Coaching Minor

The Coaching Minor offers Oregon Tech students the opportunity to gain knowledge and skills in coaching. The Coaching Minor features study in the basics of sports medicine, team communication and psychology, and coaching theory. It also includes an opportunity to apply that knowledge to coaching in practical ways. Students who obtain the minor will document their preparation to coach in any sport or situation. For advising or for more information contact the head of the Coaching Minor Committee, currently, Dr. Kevin Brown.

Career Opportunities

The Coaching Minor represents a credential that documents the student's academic and practical preparation to coach. For students interested in coaching, this should give them an advantage over others without documented training and experience.

Physical Education Philosophy and Courses

At Oregon Institute of Technology, the physical education philosophy is that every man and woman can achieve and maintain fitness through a sound program based on varied developmental, sport, and recreational activities. The physical education courses provide basic instruction in vigorous activities.

Course offerings include fitness training, weight lifting, aerobics activities, archery, ice skating, rugby, recreational basketball, tai chi, Zumba, yoga, kick boxing, core strength & balance, Pilates, rowing, belly dance, scuba, swim classes, relaxation & flexibility, varsity sports and major sports seminars, including weight loss and weight loss management. Other offerings include wilderness navigation, cross country skiing and snowshoeing.

Health Education Philosophy and Courses

Selected courses in health education are provided to assist students to prevent physical and mental health disorders and to promote well-being.

Course Policy

Physical education courses are currently offered as elective credits only. Some courses may require an additional course fee depending on facility and special equipment needs. There is no limit on the number of times a physical education course can be repeated.

Respiratory Care Program

The Bachelor of Science degree program prepares the respiratory care student for entry into the respiratory care profession and eligibility for the National Board for Respiratory Care (NBRC) certificate examination (CRT) and registry examinations (RRT). Upon successful completion of the program, the graduate is eligible to apply for state licensure.

Accreditation

The Respiratory Care Program is fully accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 1248 Harwood Rd., Bedford, TX 76021, (817) 283-2835.

Career Opportunities

Registered respiratory therapists are physician extenders who, under medical direction, administer cardiopulmonary care, evaluate and assess pulmonary patients, and administer medications and diagnostic tests when appropriate. Their duties involve the use of many of the latest advances in medical arts, sciences, and technology. Graduates are employed in hospitals, physician's offices, rehabilitation facilities, home-care agencies and health care promotion centers as caregivers, managers and educators.

Licensure

Students, when applying for licensure, will be asked if they have ever been convicted of a criminal offense, or if they have a history of drug or alcohol abuse. Students with a concern in this area should immediately contact the Oregon Respiratory Therapist Licensing Board (ORTLB) prior to applying to this program.

Program Learning Outcomes

Students in the program will demonstrate:

- the ability to communicate effectively in oral, written and visual forms
- knowledge of the respiratory care code of ethics and ethical and professional conduct
- the ability to function effectively as a member of the health care team
- knowledge and application of mechanical ventilation and therapeutics
- knowledge and application of cardiopulmonary pharmacology and pathophysiology
- management of respiratory care plans for adult, neonatal and pediatric patients

Pre-Respiratory Care Freshman Year

Enrollment is open to all students who meet the general entry requirements to Oregon Institute of Technology. Students will be listed as Pre-Respiratory Care students. Students will be selected into the professional curriculum based on cumulative grade-point average, non-smoking status, performance on an anatomy and physiology test and submission of a technical paper. Alternatively, students may be admitted based upon successful completion of a CoARC accredited associate degree program in respiratory care.

Students are strongly advised to complete all the general education courses in the freshman year curriculum before making application to the professional program.

Selections will be made at the end of the spring and summer terms of the Pre-Respiratory Care year. The number of students selected each year will be determined by the availability of clinical sites and other resources, which means that the number of qualified applicants may exceed the number of spaces available. When that is the case, students with the highest cumulative GPA are the first to be offered a position in the program.

Degree Completion Program

The Respiratory Care Program offers a degree completion program for respiratory therapists who wish to pursue a bachelor's degree in their field. The program is offered online and requires collaborative learning. Admission is based on successful completion of a CoARC accredited associate degree in respiratory care. When students have completed RCP 442 and have submitted documentation of the Registered Respiratory Therapist credential college credit is granted. Students must participate in an orientation. Each prospective student's academic credits will be individually evaluated to determine acceptability of the non-professional coursework and the sequencing of the professional courses. Every student must meet the Oregon Tech general education requirements for graduation. The Respiratory Care Degree Program includes the presentation of a senior project.

Graduation Requirements

All credits listed in the curriculum for the catalog year a student begins a program must be fulfilled. A minimum of 187 credits must be completed and students must maintain a 2.00 GPA to be eligible for graduation. In addition, a final grade of "C" or better must be earned in all professional courses (RCP), communication courses, and science/mathematics courses to continue in the program. All curricular requirements must be met within five academic years once the student is admitted into the professional program as a sophomore. Students must successfully pass the SAE examination as a condition of the BS degree completion.

Clinical Sleep Health

- Associate of Applied Science in Sleep Health, Clinical Sleep Health Option

Certificate Offered in Clinical Sleep Health

Students must successfully complete the core courses required to sit for a national exam. Computer and Internet access is required. Successful completion of the certificate curriculum (together with a completed Associate degree) leads to eligibility to sit for the national Certified Clinical Sleep Health examination (CCSH).

The program objectives and focus are to provide content knowledge in the following domains: Sleep Over the Lifespan; Clinical Evaluation and Management; Patient and Family Communication and Education; and Program Maintenance and Administration.

Associate of Applied Science in Sleep Health – Clinical Sleep Health Options

Students must successfully complete the courses in the certificate program for Clinical Sleep Health and 46 other general education credits. The degree completion courses can be taken from Oregon Tech or transferred from another college, however at least 30 credits must be taken from Oregon Tech. Successful completion of the two year curriculum leads to eligibility to sit for the national Certified Clinical Sleep Health (CCSH) exam. Computer and Internet access is required.

Students who have completed the CCSH exam may pursue a Health Care Management, Clinical Option, BS . Students complete health management classes offered through the Oregon Tech Management Department either in the classroom or via the online education program while working in their hometown. See the Management Department section of this catalog for more information regarding this degree.

Accreditation

The Clinical Sleep Health Program is accredited under the university accreditation by the Northwest Commission on Colleges and Universities (NWCCU), 8060 165th Avenue, N.E., Suite 100, Redmond, WA 98052-3981. NWCCU is an institutional accrediting body recognized by the Council for Higher Education and/or the Secretary of the U.S. Department of Education. As of this date, Commission on Accreditation of Allied Health Education Programs (CAAHEP) does not have an accrediting body for this degree.

Career Opportunities

Certified Clinical Sleep Health specialists, under medical direction, conduct diagnostic testing, evaluation of sleep disorder patients, patient/community education, compliance certification, status evaluations, and coordination of patient care plans. Their duties involve the use of highly advanced technology and compassionate patient care. Graduates are employed by hospitals, out-patient testing facilities and bio-medical equipment manufacturers.

Licensure

Students are eligible to sit for the national CCSH exam administered by the Board of Registered Polysomnographic Technologists following the completion of the courses in the certificate program.

Program Learning Outcomes

1. Describe normal sleep architecture, quantity, and quality for the following populations: adult, geriatric, pediatric and infant
2. Identify factors contributing to variations in normal sleep
3. Identify and recognize the pathophysiology, epidemiology, and clinical presentation of abnormal sleep
4. Correlate and document sleep and medical history
5. Identify co-morbid conditions and impact on patients
6. Assess and explain evaluation and measurement tools
7. Evaluate and describe treatment/therapy options and develop individualized patient care plans
8. Develop sleep educational programs for patients and their families in the areas of sleep hygiene and specific treatments
9. Develop multidisciplinary and collaborative sleep programs for inpatients, outpatients, and occupational health and wellness programs
10. Develop system to track and manage therapeutic programs for performance improvement and quality
11. Develop a community outreach program to promote sleep disorders as a public health issue

Student Preparation

The Certificate in Clinical Sleep Health is designed for those who have an approved medical license and at least an associate degree. Applicants must have one of the following credentials to be eligible for admission into the certificate program.

- Polysomnographic Technologist (RPSGT) or

- Sleep Technologist (RST)
- Respiratory Therapist (RRT, CRT)
- Neurodiagnostic Technologist (REEGT, CLTM)

- Health Educator (CHES)
- Nurse (RN, LPN, MSN) or
- Nurse Practitioner (NP)
- Physician (MD, DO)
- Physician Assistant (PA)
- Dentist (DDS)
- Dental Hygiene (DH)
- Doctor of Philosophy (PhD) in health, counseling, science

The AAS degree is for those who hold a current license in any of the above areas, but do not have an associate (or higher) degree. Candidates for the national registry exam must hold a minimum of an associate degree.

Computer Proficiency Requirement

The CSH Program is an online education program requiring basic computer proficiency to be successful.

Clinical Requirements

All applicants must meet the general admissions requirements to enroll in the Polysomnographic Technology Program. To be eligible for admission into the Polysomnographic Technology Program, applicants must meet the following criteria:

1. Applicants for the certificate program must be licensed in one of the medical fields listed above and hold at least an associate degree. **All prospective candidates must be currently employed in a facility that treats patients with sleep disorders, and the medical director or clinical manager must agree to allow the candidate to complete 400 hours of externship under his or her direction.**

2. Candidates must provide proof of completion of either a Cardio Pulmonary Resuscitation (CPR) course or a Basic Cardiac Life Support (BCLS) course prior to enrollment.

Graduation Requirements

Minimum graduation requirements for the A.A.S are the successful completion of 46 credit hours of general education courses and 45 credit hours in the area of specialization with a GPA of 2.0 or better. In addition, a final grade of "C" or better must be earned in all professional courses (CSH, BUS, and BIO), communication courses and science/mathematics course to continue in the program. This requirement also applies to the certificate program.

Polysomnographic Technology

- Associate of Applied Science in Sleep Health

Certificate Offered

- Polysomnographic Technology

Students must successfully complete the core courses required to sit for a national exam. Computer and Internet access is required. Successful completion of the certificate curriculum leads to eligibility to sit for the national Registered Polysomnographic Technologists examination (RPSGT).

Associate of Applied Science in Sleep Health – Polysomnographic Technology Option

Students must successfully complete the courses in one of the certificate programs for Polysomnographic Technology or Clinical Sleep Health and other general education courses. The degree completion courses can be taken from Oregon Tech or transferred from another college. A minimum of 30 credit hours must be taken from Oregon Tech. Computer and Internet access are required.

Students who have completed the RPSGT or CCSH exams may pursue a Health Care Management, Clinical Option, BS . Students complete health management classes offered through the Oregon Tech Management Department either in the classroom or via the online education program while working in their hometown. See the Management Department for more information regarding this degree.

Accreditation

The Polysomnographic Technology Certificate (not the AAS) is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The curriculum follows the guidelines suggested by the Board of Registered Polysomnographic Technologists. Inquiries regarding accreditation should be directed (CAAHEP). Commission on Accreditation of Allied Health Education Programs, (CoPSG) is a specialized accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S., Department of Education. CAAHEP contact information: 1361 Park Street, Clearwater, FL 33756, Phone: (727) 210-2350

Career Opportunities

Registered Polysomnographic technologists, under medical direction, conduct diagnostic testing and evaluation of sleep disorder patients. Their duties involve the use of highly advanced technology and compassionate patient care. Graduates are employed by hospitals, out-patient testing facilities and bio-medical equipment manufacturers. Currently, there is a severe nationwide shortage of Registered Polysomnographic Technologists.

Licensure

Students are eligible to sit for the national RPSGT exam administered by the Board of Registered Polysomnographic Technologists following the completion of the courses in the certificate program.

Program Learning Outcomes

- Demonstrate the ability to review patient information and prepare for a polysomnogram
- Demonstrate the ability to apply sensors correctly with acceptable impedances for data collection
- Demonstrates ability to calibrate signals, document, and troubleshoot recording artifact
- Demonstrates ability to accurately analyze and summarize adult PSG data
- Demonstrates understanding of PAP and 02 theory, application and contraindications
- Demonstrates knowledge of PAP therapy adherence, management, and patient education

Student Preparation

A science background is beneficial to those entering any health sciences profession. It is recommended that the student considering a career in Polysomnography take a college bound course of study in high school that includes algebra, chemistry and biology or human anatomy and physiology. It is recommended that students take courses in Microsoft Word, Excel and PowerPoint in high school. Students are required to provide proof of completion either Cardio Pulmonary Resuscitation (CPR) or Basic Cardiac Life Support (BCLS) prior to admission.

Computer Proficiency Requirement

Demonstrated computer proficiency is required by the Board of Registered Polysomnographic Technologists to be eligible to sit for the national exam. The PSG Program is an online education program requiring basic computer proficiency to be successful. Successful completion of the program therefore, indicates basic computer proficiency.

Degree Completion Program

The associate degree program offers a degree completion program for Registered Polysomnographic Technologists who lack a degree. The courses for this program can be taken through the Online Education Department or in the classroom. Two of the required courses are not available online and must be taken either in the Oregon Tech classroom or a local college and transferred. The communication courses are offered through the online education program of other colleges in the Oregon University System.

Upon receipt of the necessary documentation, specific college credits will be awarded to qualified applicants for having passed the Registered Polysomnographic Technologists examination.

Clinical Requirements

All applicants must meet the general admissions requirements to enroll in the Polysomnographic Technology Program. To be eligible for admission into the Polysomnographic Technology Program, applicants must meet the following criteria:

1. Applicants for the certificate program must be high school graduates. If a prospective candidate is not currently employed in a sleep facility, an appropriate site must be found and a clinical agreement between Oregon Tech and that facility must be established prior to beginning classes.

2. Candidates must provide proof of completion of either a Cardio Pulmonary Resuscitation (CPR) course or a Basic Cardiac Life Support (BCLS) course prior to enrollment.
3. Candidates must submit immunization records prior to their clinical placement.
4. Criminal background clearance is required prior to acceptance and some clinical sites may require drug screening.
5. One full shift of job shadowing is required prior to applying to the program.
6. All Prospective candidates must speak with the program director Dr. Jane Perri, (937) 750-5416, prior to submitting their application

Graduation Requirements

Minimum graduation requirements for the A.A.S are the successful completion of 43 credit hours of general education courses and 47 credit hours in the area of specialization with a GPA of 2.0 or better. In addition, a final grade of "C" or better must be earned in all professional courses (PSG, ECHO, and RCP), communication courses and science/mathematics course to continue in the program. This requirement also applies to the certificate program.

In order to prepare for the national registry exam, students are required to participate in a practical exam and a comprehensive written exam at the conclusion of the certificate program. Students are required to come either to Medford Oregon or to Dayton, Ohio for one day of residency. Passage of these exams is required to complete the certificate program. Associate degree students who have already obtained their national licensure are not required to complete this requirement.

Programs

ASPT-AAS_ASPT-MAJOR - Sleep Health-Polysom Tech Opt
BRCO-BS_BRCO-MAJOR - Respiratory Care
BRCP-BS_BRCP-MAJOR - Respiratory Care
CCSH-C_CCSH-MAJOR - Clinical Sleep Health
CPSG-C_CPSG-MAJOR - Polysomnographic Technology
DPT-FP_DPT-MAJOR - Doctor Physical Therapy
PRC-PRC-MAJOR - Pre-Respiratory Care Gen Study

Courses

ALH501 - Healthcare Leadership Orient.
ALH505 - IT and Health Informatics
ALH506 - Healthcare Administration
ALH507 - Seminar
ALH508 - Medical Edu Theories & Methods
ALH509 - Thesis/Capstone Research Hours
ALH515 - Scientific Writing & Healcare
ALH525 - Interdiscipline HC Leadership
ALH535 - Quality Improv. in Healthcare
ALH545 - Healthcare Ethics and Policy
ALH555 - Leadership Theory and Styles
ALH565 - Population Health
ALH575 - Research Methods
ALH585 - Healthcare Finance
ALH595 - Curriculum Design for AH Prof
ALH599 - MS Thesis/Capstone & Defense
CSH201 - Human Dev. and Sleep Health
CSH220 - Sleep Disord & Co-Morbid
CSH255 - Oral Apls. for Sleep Apnea
ECHO227 - Basic ECG Recognition/Testing
HED107 - Seminar
HED207 - Seminar
HED240 - Emergency Care and CPR
HED260 - Diet/Exer Life Fitness
HED275 - Intro to Sports Medicine
HED307 - Seminar
HED407 - Seminar
PHED107 - Seminar
PHED111 - Core Strength and Balance
PHED113 - Super Circuit/Cardio Training
PHED121 - Total Fitness Conditioning I
PHED122 - Total Fitness Conditioning II
PHED145 - Relaxation and Flexibility
PHED146 - Yoga
PHED151 - Karate
PHED163 - Wilderness Navigation
PHED174 - Recreational Basketball
PHED175 - Rugby
PHED180 - Varsity Cross Country
PHED181 - Varsity Soccer
PHED182 - Varsity Track/Field
PHED183 - Varsity Men's Baseball
PHED184 - Varsity Men's Basketball
PHED185 - Varsity Women's Basketball
PHED186 - Varsity Women's Softball
PHED187 - Varsity Women's Volleyball
PHED189 - Varsity Golf
PHED207 - Major Sports Seminar
PHED255 - Intro to Coaching Theory
PHED307 - Seminar
PHED355 - Coaching in Application
PHED407 - Seminar
PHED455 - Coaching Practicum
PSG107 - Seminar
PSG207 - Seminar
PSG211 - Fund of PSG & Patient Care
PSG221 - Physiology of Sleep
PSG231 - Sleep Disorders Pathology
PSG246 - Sleep Disorders in Women
PSG264 - Pediatric/Neonatal Psg
PSG271A - Clinical Polysom Tech A
PSG271B - Clinical Polysom Tech B
PSG271C - Clinical Polysom Tech C
PSG291 - Clinical Sleep Educator
PSG307 - Seminar
PSG407 - Seminar

PT600 - Intro to PT Profession
PT605 - Clinical Human Anatomy
PT607 - Seminar
PT610 - Nutrition and Wellness
PT615 - Foundations of PT Practice
PT620 - PT Examination Skills
PT625 - Assistive Device Training
PT630 - Social Determinants of Health
PT631 - Therapeutic Exercise I
PT632 - Therapeutic Exercise II
PT635 - Human Physiology
PT640 - Biomec Kinematics Human Motion
PT641 - Mgmt of Musculoskeletal Dys I
PT645 - Prin of Evidence-Informed Prac
PT650 - Therapeutic Modalities
PT655 - Pathophysiology
PT660 - Motor Cont & Learn Across Life
PT665 - Clinical Neuroscience
PT670 - Exercise Physiology
PT675 - Clinical Reason & Decision Mak
PT680 - Ethics in Health Professions
PT700 - Mgmt Cardio/Pulmon Dysfunction
PT705 - Mgmt Integumentary Dysfunction
PT707 - Seminar
PT710 - Medical Imaging for PT
PT715 - Teaching and Learning
PT720 - Clin Rsrch Meth & Biostatistic
PT721 - Clinical Experience I
PT722 - Clinical Experience II
PT723 - Clinical Experience III
PT724 - Clinical Experience IV
PT725 - Physical Therapy Pharmacology
PT730 - Integrated Clinical Experience
PT731 - Mgt Neurological Dysfunction I
PT732 - Mgmt of Neuro Dysfunction II
PT735 - Bus, Legal, & Regulatory Issue
PT740 - Acute Care in Physical Therapy
PT741 - Mgt Musculoskeletal Dysfunc II
PT745 - Differential Diagnosis
PT750 - Pediatric Physical Therapy
PT751 - Capstone Project I
PT752 - Capstone Project II
PT753 - Capstone Project III
PT755 - Geriatric Physical Therapy
PT760 - Orthotics and Prosthetics
PT765 - Clinical Administr & Marketing
PT770 - Leadership & Professional Dev
PT775 - PT in Rural Communities
PT779 - Special Topics
PT780 - Management of Complex Patients
RCP100 - Matriculation
RCP107 - Seminar
RCP120 - Interventions in Gas Exchange
RCP207 - Seminar
RCP223 - Emergent Chest Radio Interpret
RCP231 - Pulmonary Physiology
RCP235 - Arterial Blood Gases
RCP236 - Cardiopulmonary Dynamics
RCP241 - Respiratory Gas Therapeutics
RCP252 - Cardiopulmonary Pharmacology
RCP307 - Seminar
RCP326 - Preparednes, Ethics, and Ldshp
RCP335 - Exercise Physiol and Education
RCP336 - Hyperinflation Therapies
RCP337 - Pulmonary Pathology
RCP345 - Cardiopulmonary Diag & Monitor
RCP350 - Introduction to Clinical
RCP351 - Mechanical Ventilation I
RCP352 - Mechanical Ventilation II
RCP353 - Mechanical Ventilation III
RCP366 - Clinical Simulation
RCP375 - Pediatric Care
RCP386 - Critical Care I
RCP387 - Critical Care II
RCP388 - Adv Neonatal Respiratory Care
RCP407 - Seminar
RCP440 - Case Management I
RCP441 - Case Management II
RCP442 - Case Management III
RCP450 - Clinical Care I
RCP451 - Clinical Care II
RCP452 - Clinical Care III
RCP460 - Advanced Life Support
RCP561 - Individual Development Plan
RCP565 - Clinical Preceptorship
RCP575 - Accreditation Practicum

Humanities & Social Sciences Department

The Humanities and Social Sciences Department offers undergraduate degrees in Applied Psychology and Population Health Management, graduate degrees in Applied Behavior Analysis and Marriage and Family Therapy, minors in Arts, Literature, and Philosophy (ALPs) Medical Sociology, and Psychology and a diverse collection of courses that meet the general education requirements for all students. In addition, these classes meet the lower-division requirements for college transfer students in many pre-professional programs. Our programs work closely with community partners to provide applied learning experiences for our students.

Department Goals and Objectives

1. To provide coursework in the humanities and social sciences in order to prepare students for employment in a rapidly changing global market.
2. To provide course offerings in multiculturalism and globalization.
3. To assist students in developing critical thinking and problem-solving abilities and to develop scientific knowledge and inquiry skills.
4. To assist students in developing ethical and cultural awareness.
5. To prepare students to be responsible citizens and lifelong learners.

6. To assist students in developing an aesthetic appreciation of the arts.

Applied Behavior Analysis

Degree Offered

- Master of Science in Applied Behavior Analysis (MS_ABA)

Certificate Offered

- Applied Behavior Analysis Graduate Certificate

MS-ABA

Oregon's first master's degree in applied behavior analysis, the MS-ABA curriculum focuses on providing a rigorous and thorough foundation in the science of behavior analysis. Students will be prepared to apply the principles of behavior analysis with diverse populations and in a wide variety of settings. Oregon Tech's MS-ABA prepares students to meet national certification and Oregon licensure requirements.

Courses are taught on the Klamath Falls and Portland-Metro campuses and are available to students everywhere via Zoom (a synchronous videoconferencing program). The use of Zoom technology provides an alternative to fully online, asynchronous programs for students in all areas of the state who prefer the real-time, face-to-face educational experience.

Applied Behavior Analysis

Applied Behavior Analysis (ABA) is an evidence-based, data-driven, systematic approach to intervention. Practitioners of ABA apply principles of reinforcement and focus on applications that improve the quality of life for individuals. Behavior analysts provide services in a variety of settings including schools, clinics, rehabilitation settings, residential facilities, social service agencies, mental health facilities, businesses, and client homes. They work with diverse populations including individuals and families affected by autism, developmental and intellectual disabilities, brain injury, mental health, geriatrics, child abuse, and neglect.

Program Mission

The mission of the MS-ABA program is to enable students to become effective and ethical behavior analysts. Students will be prepared to apply principles of behavior analysis to enhance the lives of individuals across a wide variety of settings. The program emphasizes a foundation in theory, concepts, and principles, development of basic behavior analytic skills, and an emphasis on professional and ethical responsibilities.

Program Objectives

1. To produce competent graduates who can work effectively and ethically across settings and with diverse populations
2. To enable students to obtain the knowledge and skills necessary for immediate employment in ABA and/or further graduate study in ABA and related areas
3. To prepare students for national certification and Oregon licensure as behavior analysts

Program Learning Outcomes

1. Students will understand the history and philosophy of behaviorism and basic theoretical approaches to understanding behavior.
2. Students will demonstrate competence in understanding how principles of behavior are discovered and described in the context of basic research.
3. Students will use technical terminology to explain and provide examples of the characteristics, concepts, principles, and processes of behavior analysis.
4. Students will demonstrate an understanding of, and ability to conduct behavioral assessments and functional behavioral analyses (FBA), and identify strengths and limitations of assessments and FBAs.
5. Students will demonstrate competence in the measurement of behavior, data collection, data analysis, and graphic representation.
6. Students will demonstrate competence in single-subject research designs and will identify and describe the advantages, disadvantages, and ethical considerations of research designs.
7. Students will critically evaluate research, analyze, and apply research findings to the practice of applied behavior analysis.
8. Students will explain the fundamental elements of behavioral interventions including behavior change strategies, procedures and systems, including identification of scientific evidence and methods for ensuring effective implementation and maintenance of behavioral programs.
9. Students will demonstrate an understanding of the legal constraints and ethical guidelines as pertinent to behavioral research and practice.
10. Students will demonstrate an understanding of the roles, functions, and responsibilities of professional behavior analysts, including relationships with professional organizations, and maintaining professional credentials.

11. Students will demonstrate the professional skills essential to developing professional and therapeutic relationships, set goals, maintain boundaries, evaluate client outcome, terminate treatment, and collaborate with other professionals.

12. Students will demonstrate competent oral and written communication.

Licensure and Certification

MS-ABA prepares students to meet national certification and Oregon licensure requirements. The program includes the Association of Behavior Analysis-International (ABAI) verified course sequence VCS) and practicum experience that meets national certification requirements for supervised experience

BCBA course sequence: the Association for Behavior Analysis-International has verified these courses as meeting the coursework requirements for eligibility to take the Board Certified Behavior Analyst® exam. (Applicants will have to meet additional requirements to qualify)

ABA Practicum: second year practicum placements provide students with the opportunity for supervised experience. Practicum placements may be paid or unpaid positions with approved ABA agencies and, in Klamath Falls, with Oregon Tech's BIG ABA clinic and local schools

Admissions

In order to ensure that students have the necessary preparation for success in the MS-ABA program, applicants must meet the Oregon Tech requirements for admission as well as the MS-ABA program specific requirements.

Applicants to the MS-ABA program at Oregon Tech shall meet the following requirements:

- Bachelor's Degree: Bachelor's degree from an accredited four-year institution in Psychology or a related field.
- GPA: Overall undergraduate GPA of 3.0 on a 4.0 scale and 3.0 for the last 90 quarter credits (60 semester) credits of coursework.
- Undergraduate Coursework: A grade of B or better in General Psychology, Research Methods, and Statistics.
- Academic Standing: Be in good academic standing at last college or university attended.
- Personal Statement and Resume: Applicants will be required to write a statement that addresses career goals and relevance to the program, evidence of aptitude for graduate work and evidence of potential for success in the field.
- Reference Letters: Applicants to the program will be required to provide three letters of reference (at least one academic and one professional) that address the applicant's preparation, abilities, and character.
- Background Check: Due to the sensitive nature of this program in regard to work with children and/or vulnerable populations, applicants must pass a criminal background check such as that conducted by the Oregon Department of Human Services (DHS).
- The department and university can grant conditional admission to candidates not meeting all of the minimum requirements.

Applied Behavior Analysis Graduate Certificate

The Certificate in Applied Behavior Analysis is a 33-credit, twelve-course sequence for individuals who wish to pursue additional coursework in Applied Behavior Analysis. The Association for Behavior Analysis International has verified this course sequence as meeting the course work requirements for eligibility to take the Board Certified Behavior Analyst® exam (applicants for the BCBA® exam will have to meet additional requirements to qualify).

Program Learning Outcomes

Upon completion of the Certificate in Applied Behavior Analysis, students will be able to:

1. Explain and provide examples of basic characteristics, principles, processes, and concepts of Applied Behavior Analysis
2. Select, design, and use appropriate methods to measure behavior
3. Display and interpret behavioral data in various formats
4. Evaluate behavioral interventions using appropriate experimental designs
5. Identify and describe the advantages, disadvantages, and ethical considerations of behavior analytic experimental designs
6. Read and interpret behavior analytic literature
7. Describe the major methods for conducting behavioral assessments and functional analyses, including strengths and limitations
8. Explain the fundamental elements of behavioral interventions including behavior change strategies, procedures and systems, including identification of scientific evidence
9. Describe methods for ensuring effective implementation and management of behavioral programs
10. Describe and provide examples of the ethical and professional responsibilities of behavior analysts and apply the BACB® Ethics Code for Behavior Analysts

Required Courses

ABA 511 - Foundations of ABA I Credit Hours: 3

ABA 512 - Foundations of ABA II Credit Hours: 3

ABA 521 - Ethics & Professional Issues I Credit Hours: 2

ABA 522 - Ethics & Profess Issues II Credit Hours: 3

ABA 524 – Observations and Measures Credit Hours: 2

ABA 525 - Research Methods in ABA Credit Hours: 3

ABA 526 - Behavioral Assessment I Credit Hours: 3

ABA 527 – Radical Behaviorism Credit Hours: 3

ABA 531 - Behavior Change I: Decreasing Challenging Behavior Credit Hours: 3

ABA 532 – Behavior Change II: Increasing & Maintaining Behavior Credit Hours: 3

ABA 546 – Behavioral Assessment II Credit Hours: 2

ABA 547 – Supervision & Personnel Management Credit Hours: 3

Marriage and Family Therapy

Degree Offered

- Master of Science in Marriage and Family Therapy (MS MFT)

Program Overview

The MFT Program at Oregon Tech is a full-time mental health graduate program with specialized training in systems, families, and relationships. Students are admitted to the program to begin coursework each fall. The MFT Program takes 2.75 years to successfully complete; part-time opportunities are available upon request. A year-long practicum experience begins in June between years two and three of the program. Courses are offered nights, weekends, and days in a variety of modalities, including: face-to-face in person, face-to-face via video conferencing, blended;,and fully online.

Rural Mental Health Care: Mental health care needs in rural areas, like southern Oregon, provide unique challenges that require unique approaches. MFT students develop the expertise and skills required to excel as rural mental health care providers.

Integrated Behavioral Healthcare and Medical Family Therapy: Medical health and mental health often influence one another. These not only affect the patient, but the patient's partner and family system as well. The MFT Program has embedded Integrated Behavioral Healthcare and Medical Family Therapy courses into the curriculum to help graduates develop the knowledge and skills required to become indispensable leaders in medical family therapy, who often work in medical settings and work closely and collaboratively with medical personnel. Those who graduate from the MS MFT Program earn a Graduate Certificate in Integrated Behavioral Healthcare and Medical Family Therapy.

Substance Use, Addiction, and Recovery: Mental health and addiction frequently co-exist. The MFT Program has integrated addiction courses into the curriculum in an effort to graduate competent trauma-informed, systemic clinicians with a strong foundation in addiction and recovery.

Program Mission Statement

Oregon Tech's Master of Science in Marriage and Family Therapy (MS-MFT) program prepares graduates to become skilled Marriage and Family Therapists with multicultural competence, expertise in rural mental health care, medical family therapy and substance use disorders and addictions treatment.

In strong collaboration with local child and family service organizations, health care and mental health care providers, the MS MFT program supports and strengthens mental health care and child and family services in the under-served rural areas that are in southern Oregon.

Program Objectives

1. Teach foundational knowledge related to human development, basic counseling skills, MFT theories and interventions, assessment and diagnosing, cultural humility, rural mental health care, and research.
2. Train trauma-informed and culturally competent marriage and family therapists.
3. Teach the integration of mental health and addiction and recovery in the etiology and treatment of co-occurring disorders.
4. Train marriage and family therapists in Integrated Behavioral Healthcare and Medical Family Therapy practices.
5. Increase awareness of issues of diversity, inclusion and social justice for the delivery of culturally-responsive and culturally-sensitive family therapy.
6. Promote the importance of ethical principles while upholding ethical standards that are consistent with the AAMFT Code of Ethics and the ACA Code of Ethics.

Program Learning Outcomes

1. Theoretical Knowledge

Competency: Apply principles and constructs of various human development and systems theories to marriage and family practice.

2. Clinical Knowledge

Competency: Apply family therapy skills and techniques to assess, structure and direct therapy, help clients to find solutions, identify strengths, and stay engaged in the therapeutic process.

3. Professional Identity and Ethics

Competency: Develop professional identity consistent with professional attitudes and behaviors outlined in the AAMFT Code of Ethics and applicable laws and regulations, with particular attention to cultural competence.

4. Cultural Competency

Competency: Demonstrate knowledge about systemically and culturally contextualized experiences of members of socio-cultural majority and minority groups, integrating that knowledge into ethical practice as marriage and family therapists.

5. Research

Competency: Analyze research and translate research findings for improvement of family therapy services using statistics and program evaluation methods.

6. Interpersonal Effectiveness

Competency: Achieve personal development and demonstrate positive relationship skills via effective communication, respect for others, and awareness of their impact on others.

Licensure and Credentialing

The Oregon Tech MS- MFT Program has a comprehensive curriculum, approved by the Oregon Board of Licensed Professional Counselors and Therapists. Graduates will meet curriculum requirements for licensing as Licensed Marriage and Family Therapists in the state of Oregon.

The MFT Program curriculum is designed to meet COAMFTE requirements.

The certification of alcohol and drug counselors in the state of Oregon is overseen by the Mental Health and Addiction Certification Board of Oregon (MHACBO). Graduates of the MFT Program at Oregon Tech will meet the educational requirements for credentialing as Certified Alcohol and Drug Counselors III (CADC III).

Career Opportunities

MFT's are trained in both psychotherapy and in family systems, which allows them to focus on understanding client symptoms in the context of the relational interactions that influence behavior. Family-based therapy is a powerful model for change. Research has shown that family-based interventions such as those utilized by MFTs are as effective as–and in many cases more effective than–alternative therapies, often at a lower cost. MFTs apply a holistic perspective to health care; they are concerned with the overall, long-term well-being of individuals and their families. Whoever the client, MFTs view problems from a relationship perspective. Settings in which MFT's become employed include, but are not limited to:

- Community mental health centers/agencies
- Child and family service agencies
- Private practice
- Religious and spiritual organizations
- Hospitals and medical settings
- School-based therapy settings
- Veterans services facilities
- Residential treatment facilities
- Addiction and recovery services

Admission

To ensure that students have the necessary preparation for success in the MS-MFT program, applicants must meet the Oregon Tech requirements for admission as well as the MS-MFT program specific requirements.

Applicants to the MS-MFT program at Oregon Tech shall meet the following requirements:

- Bachelor's Degree: Bachelor's degree from an accredited four-year institution in Psychology, Sociology, Anthropology, Human Development, Family Studies, or related field.
- GPA: Overall undergraduate GPA of 3.0 on a 4.0 scale and 3.0 for the last 90 quarter credits (60 semester) credits of coursework.
- Recommended undergraduate Coursework: A grade of B or better in Introduction to Psychology or Sociology, Research Methods, and Human Sexuality.
- Academic Standing: Be in good academic standing at last college or university attended.
- GRE Scores – GRE scores over five years old are not accepted.
- Personal Statement and Resume: Applicants will be required to write a statement that addresses career goals and relevance to the program, evidence of aptitude for graduate work and evidence of potential for success in the field.

- Reference Letters: Applicants to the program will be required to provide three letters of reference (at least one academic and one professional) that address the applicant's preparation, abilities, and character. Reference letters should not be written by family or close friends.
- Updated resume
- Background Check: Due to the sensitive nature of this program in regard to work with children, families, and/or vulnerable populations, applicants must pass a criminal background check after admission to the program.
- The department and university can grant conditional admission to candidates not meeting the minimum requirements.

Integrated Behavioral Healthcare & Medical Family Therapy Graduate Certificate

- Integrated Behavioral Healthcare & Medical Family Therapy Graduate Certificate is the only graduate certificate of its kind offered in the State of Oregon, the Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy at Oregon Tech will help meet the growing demand for qualified mental health professionals who are well-trained to work in integrated care settings, thus making students marketable and sought after, in addition to helping fill the need for health care professionals in southern Oregon and other underserved areas of the nation.
  The Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy is embedded within the M.S. Marriage and Family Therapy (MFT) Program's curriculum. The Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy is a 12-credit, four-course sequence that trains Oregon Tech's MS MFT students to specifically work within an integrated behavioral health model.
  Titles given to those with this specialized training are "Behavioral Health Clinician," "Behavioral Health Practitioner," "Integrated Behavioral Health Therapist," or "Medical Family Therapist." Those with this certificate will typically work in integrative healthcare or collaborative healthcare settings, wherein they collaborate closely with primary care and medical providers, as well as other helping disciplines, to help patients and their families. They typically work in hospitals, doctors' offices, other medical settings, private practice offices, and community mental health agencies.
  Students who complete the necessary coursework within the M.S. MFT Program at Oregon Tech, which means earning a grade of "A" or "B" in each course, will earn the Graduate Certificate in Integrated Behavioral Healthcare & Medical Family Therapy.

Program Learning Outcomes

Upon completion of the Graduate Certificate in Integrated Behavioral Healthcare and Medical Family Therapy, students will be able to:

1. Describe the multiple professional roles and functions of counselors across specialty areas, and their relationships with human service and integrated behavioral healthcare systems, including interagency and inter-organizational collaboration and consultation
2. Describe the roles and functions unique to Rural Mental Healthcare
3. Describe the roles and functions unique to Medical Family Therapy
4. Understand, describe, and apply biopsychosocial-spiritual approaches to healthcare.
5. Understand and describe how to work collaboratively as members of holistic medical teams, including how to refer, document, and communicate with healthcare professionals.
6. Understand and describe the bidirectional relationship between health and wellness on mental health functioning.
7. Demonstrate knowledge of the demands and needs of patients and families affected by acute and chronic illness.
8. Describe how working with families around their cultural and illness beliefs can help them.
9. Describe how therapeutic interventions can be informed by the family's developmental stage and the illness's psychosocial typology.
10. Articulate how cultural considerations must be practiced with patients and their families.
11. Understand and describe how the care of patients and families affected by acute and chronic illness impacts mental health and medical providers.
12. Describe how students' own experiences with health and illness may affect their clinical work.
13. Understand and describe how to facilitate communication between patients, families, and healthcare providers and invite coordination of services.
14. Identify the obstacles faced by individual and families residing in rural communities who require treatment for substance use and co-occurring disorders.
15. Explain the roles of Medical Family Therapists and Behavioral Health Clinicians in integrated SUDs treatment.
16. Articulate the professional ethics and standards of practice that apply to the systemic treatment of patients in medical settings, and in addiction and recovery in underserved rural communities.

Applied Psychology

Degree Offered

- Bachelor of Science in Applied Psychology

The Bachelor of Science in Applied Psychology prepares students for careers that apply the principles of psychology in diverse settings. The program provides a strong core curriculum in order for students to understand the foundations, theories, and principles of each area of psychology. As an applied program, both core and elective courses have a skills-based focus, allowing students to identify personal strengths, apply knowledge to real-world situations, create and implement new ideas, and ultimately be prepared to enter the workforce or continue on to graduate programs. A diverse offering of elective courses allows for students to focus on one or many areas of psychology, creating a unique opportunity for students to have an in-depth and personalized psychology degree. Students should consult with their advisor about specific interests for guidance regarding elective offerings. The Applied Psychology program also offers Capstone in Applied Psychology (CAP) courses. These CAP courses vary by term and give senior students the opportunity to synthesize knowledge learned throughout the degree program and apply core principles and theories of psychology to a selected topic. Through an Applied Experience, students have the opportunity to participate in externships, advanced research courses, or community work to prepare themselves for exciting and rewarding careers in psychology or for additional course work in graduate programs.

Mission Statement

The mission of the Applied Psychology Program is to enable students to apply core principles and theories of psychology and in-depth knowledge and skills in specific areas of psychology to communicate effectively, think critically, behave ethically and with cultural awareness, and work interpersonally with people from a wide variety of backgrounds.

Career Opportunities

Nationwide, college graduates with a bachelor's in psychology perform a wide variety of jobs or attend a wide variety of graduate programs. Graduates may work in counseling, education, social service, management, public relations, public health, and other fields. All of these jobs are potentially available to graduates of Oregon Tech's Applied Psychology Program. Many of Oregon Tech's Applied Psychology graduates have found jobs in Oregon and beyond. Human service employers include county and state agencies, as well as a wide range of private and non-profit agencies. Graduates of Oregon Tech's Applied Psychology Program benefit from the emphasis of hands-on training and applied experiences. Graduates have been employed in industry and are following management training programs. Graduates have also pursued various master's and doctoral programs in psychology, Counseling, social work, education, and related fields.

Program Educational Objectives

The educational objectives of the Applied Psychology program are:

- To produce graduates with effective interpersonal skills who can work in a variety of practical settings.
- To enable students to obtain the knowledge and skills necessary for immediate employment and/or graduate study in psychology and related areas.
- To provide opportunities for students who wish to apply psychology training to employment in business and human service related organizations or to prepare for graduate programs in related areas.
- To serve as a minor to complement other programs on campus.

Program Learning Outcomes

1. Students will demonstrate an understanding of and be able to use major research methodologies in psychology, including design, data analysis, and interpretation
2. Students will demonstrate knowledge and understanding of relevant ethical issues including a general understanding of the APA Code of Ethics.
3. Students will demonstrate basic counseling.
4. Students will demonstrate effective oral and written communication, including use of APA format.

Population Health Management

Degree Offered

- Bachelor of Science in Population Health Management

The Population Health Management (PHM) professions are complementary to clinical health care. Population Health Management is the field of translating health date into actionable programs and policies that improve the health of a group of people. The PHM B.S. degree program includes core courses in medical sociology, population health, applied psychology, management, mathematics, communication, and health sciences. Students may choose one of three emphases: Health Counseling/Outreach, Care Management and Coordination, and Applied Health Data Analytics.

The PHM program begins with a foundation in sociological theory, methods and research.

PHM graduates will gain competence in social theory, research methods, statistics, program planning and evaluation, and training in working with diverse and under-served populations.

Mission Statement

The mission of the PHM program is to provide students with the best possible training for careers that improve health and well-being. As the United States health care system changes to adapt to a new demographic and health landscape, increasing emphasis is placed on preventative medicine and health maintenance. PHM graduates will help fill this pressing need, providing much needed health resources to hospitals, schools, governmental and non-profit organizations, and local communities. Such work empowers individuals through health programs and policy, to create a healthier future for our nation.

Career Opportunities

Students who graduate from the PHM program may work in a wide variety of settings, all with the intent of improving the health and well-being of individuals and communities. Careers include health coaching, health research, community health program and evaluation, education, and patient advocacy. The PHM degree is an ideal preparation for graduate study in sociology, epidemiology, public health and medicine.

Program Learning Outcomes

1. Students will demonstrate knowledge of basic theoretical frameworks of sociology and demonstrate an ability to apply social theory to behavioral trends.
2. Students will demonstrate understanding of the impact of such factors as culture, ethnicity, nationality, age, gender, sexual orientation, mental and physical characteristics, family values, education, religious and spiritual values, and socio-economics status on the health and wellbeing of individuals; students will demonstrate cultural competency.
3. Students will demonstrate an understanding of the sociological research method, including an ability to organize, analyze, and present data.
4. Students will demonstrate an understanding of the roles, functions, and responsibilities of healthcare professionals and patients, including alternative approaches to healthcare.
5. Students will demonstrate an understanding of health behavior change and the ability to practice techniques to assist others with health-seeking behavior changes.

Oregon Transfer Module (OTM)

The Oregon Transfer Module (OTM) provides a one-year curriculum for students who plan to transfer to a State of Oregon community college or university. The module allows students to complete one year of general education foundation course work that is academically sound and will meet the admission standards of the receiving school. Students should work closely with an academic advisor to ensure selection of appropriate course work. Upon transfer, students may be required to complete additional course work in general education or an academic major specific to the receiving institution. Students who transfer prior to the completion of the Oregon Transfer Module will have their courses individually evaluated by the receiving institution. Students must complete a minimum of 45 credits of lower division course work with a grade of "C-" or better in order to receive credit for the Oregon Transfer Module. A minimum of 12 credits must be earned at Oregon Tech.

Programs

BPHM-BS_BPHM-MAJOR - Population Health Management
BPSO-BS_BPSO-MAJOR - Applied Psychology
BPSY-BS_BPSY-MAJOR - Applied Psychology
BPSY-BS_BPSYHS-MAJOR - Applied Psychology
BPSY-BS_BPSYOD-MAJOR - Applied Psychology
BPSY-BS_BPSYPE-MAJOR - Applied Psychology
BPSY-ND_HAS-MAJOR - Applied Psychology
CABA-C_CABA_GPA-MAJOR - Applied Behavior Analysis
CABA-C_CABA_GR-MAJOR - Applied Behavior Analysis
CHCC-C_CHCC-MAJOR - Cultural Comp Cert
CHET-C_CHET-MAJOR - Ethics Cert
CHSD-C_CHSD-MAJOR - Social Determinants Cert
CMFT-C_CMFT_GR-MAJOR - Medical Family Therapy
MABA-MS_MABA-MAJOR - Applied Behavior Analysis
MMFT-MS_MMFT-MAJOR - Marriage and Family Therapy

Courses

ABA501 - ABA Colloquium
ABA502 - Int Training, Sci & Prac ABA I
ABA503 - Int Training Sci & Prac ABA II
ABA504 - Intro Training, Sci & Prac ABA
ABA507 - Seminar
ABA511 - Foundations of ABA
ABA512 - Foundations of ABA II
ABA515 - Basic Behavior Analysis
ABA516 - ABA & Human Development
ABA521 - Ethics
ABA522 - Ethics & Profess Issues II
ABA524 - Observations and Measurements
ABA525 - Research Methods in ABA
ABA526 - Behavioral Assessment
ABA527 - Behaviorism
ABA531 - Decreasing Behavior
ABA532 - Increasing Behavior
ABA535 - Special Topics in ABA
ABA536 - Behavior, Physiology, & Pharm.
ABA546 - Behavioral Assessment II

ABA547 - Supervision and Management
ABA565 - Organizational Behavior Mgmt.
ABA566 - ABA & Education
ABA581 - Clinical Skills I
ABA582 - Clinical Skills II
ABA583 - Clinical Skills III
ABA598 - Supervised Practicum
ABA599 - Thesis
ACAD101 - Student Success Sem
ACAD107 - Seminar
ACAD207 - Seminar
ACAD307 - Seminar
ACAD407 - Seminar
ANTH101 - Intro to Physical Anthropology
ANTH102 - Intro to Archeology
ANTH103 - Intro to Cultural Anthropology
ANTH107 - Seminar
ANTH207 - Seminar
ANTH307 - Seminar
ANTH335 - The Built Environment
ANTH407 - Seminar
ANTH452 - Globalization
ART107 - Seminar
ART205 - Introduction to Watercolors
ART207 - Seminar
ART215 - Design Arts and Aesthetics
ART220 - Basic Drawing
ART226 - Digital Photography
ART282 - Intro to Acrylic Painting
ART307 - Seminar
ART315 - Design Thinking
ART407 - Seminar
FOR200U - Foreign Language Upper Div
FOR1000 - Foreign Language 1st Year
FOR2000 - Foreign Language 2nd Year
GEOG107 - Cultural Geography II
GEOG207 - Seminar
GEOG305 - Geomorphology
GEOG307 - Seminar
GEOG315 - Climatology & Atmospheric Sci
GEOG407 - Seminar
HIST107 - Seminar
HIST201 - US History
HIST202 - US History
HIST203 - US History
HIST207 - Seminar
HIST255 - History of Science
HIST275 - Intro to Hist of Medicine
HIST307 - Seminar
HIST336 - The Medical Profession
HIST356 - A History of Energy
HIST407 - Seminar
HIST452 - Globalization & Pac NW
HIST468 - History of the Pacific NW
HUM000 - Humanities Elective Lower
HUM00U - Humanities Elective Upper
HUM105 - Intro to the Humanities
HUM107 - Seminar
HUM125 - Intro Tech, Soc, Value
HUM147 - West Cult in the Classical Age
HUM148 - West Cult in the Medieval Age
HUM207 - Seminar
HUM235 - Introduction to Film
HUM245 - Digital Culture and Society
HUM304P - Intro to Short Story
HUM307 - Seminar
HUM335 - Video Game Studies
HUM345 - Digital Culture and Society
HUM365P - Adv Intercultural Comm
HUM407 - Seminar
HUMP00 - Hum Elective Lower Performance
HUMP0U - Hum Elective Upper Performance
LIT104 - Intro to Literature
LIT105 - Intro to Literature
LIT106 - Intro to Literature
LIT107 - Seminar
LIT207 - Seminar
LIT225 - Cont Thter: Ashland Plays
LIT246 - Creative Writing
LIT305 - American Nature Writing
LIT307 - Seminar
LIT315 - Science Fiction Lit & Film
LIT325 - Lit of the Built Environment
LIT345 - Postapocalyptic Lit & Film
LIT346 - Creative Writing
LIT407 - Seminar
MFT500 - Child & Adolescent Development
MFT501 - Adult Development
MFT502 - Lifespan Development
MFT507 - Seminar
MFT510 - Introduction to MFT
MFT511 - Fmly Therapy Theory & Prac I
MFT512 - Fmly Therapy Theory & Prac II
MFT513 - Advanced Family Therapy
MFT520 - Counseling: Theory & Skills
MFT521 - Child & Adolescent Therapy
MFT522 - Couples Therapy
MFT523 - Group Therapy
MFT524 - Play Therapy
MFT525 - Trauma and Recovery
MFT530 - Adult Psychopathology & Dx
MFT531 - Child & Adolescent Psycho & Dx
MFT532 - Psychopathology & the Family
MFT533 - Violence & Abuse in Int. Rel.
MFT534 - Psychological Assessment
MFT540 - Research Methods
MFT550 - Professional Studies: Ethics
MFT560 - Dev. Cultural Competencies
MFT561 - Sexuality and Therapy
MFT562 - Rural Considerations in MH
MFT563 - Psychopharmacology
MFT564 - Sub. Abuse & Co-Occurring Dis.
MFT566 - MedFT: Illness, Fam., Prof
MFT567 - Intro to SUD's & Addiction
MFT568 - MedFT in Action: Integ & Colla
MFT569 - Fam. Substance Abuse & Add.

MFT570 - Clinical Practicum I
MFT580 - Independent Study in MFT
MFT581 - Pharmacology of Substance Use
MFT582 - Contemp. Issues in MFT & Add.
MFT590 - Clinical Capstone I
MFT592 - Self of the Therapist and MFT
MFT593 - Theories of Change in MFT
MFT594 - Capstone
MFT599 - Supervised Clinical Practicum
MUS207 - Seminar
OS107 - Seminar
OS207 - Seminar
OS307 - Seminar
OS407 - Seminar
OSH107 - Overseas Humanities
OSH207 - Overseas Humanities
OSH307 - Overseas Humanities
OSH407 - Overseas Humanities
OSSS107 - Seminar
OSSS207 - Seminar
OSSS307 - Seminar
OSSS407 - Seminar
PHIL107 - Seminar
PHIL205 - Introduction to Logic
PHIL207 - Seminar
PHIL215 - Ethical Theory
PHIL225 - Bioethics
PHIL255 - Ethics and Philosophy of AI
PHIL305 - Medical Ethics
PHIL307 - Seminar
PHIL331 - Ethics in the Professions
PHIL336 - Moral Standing &Moral Beings
PHIL342 - Business Ethics
PHIL355 - Ethics and Philosophy of AI
PHIL407 - Seminar
PHIL425 - Environmental Ethics
PHM105 - Intro to Population Health Mgm
PHM321 - Program Planning & Evaluation
PHM420 - Population Health Mgmt Extern
PHM435 - PHM Research Center
PSY000 - Psychology Elective
PSY00U - Psychology Elective Upper
PSY107 - Seminar
PSY201Z - Intro to Psychology I
PSY202 - Psychology
PSY202Z - Intro to Psychology II
PSY203 - Psychology
PSY207 - Seminar
PSY215 - Abnormal Psychology I
PSY216 - Abnormal Psychology II
PSY225 - Applied Stats for Social Sci
PSY301 - Basic Counseling Techniques
PSY307 - Seminar
PSY308 - Psychology of Eating
PSY311 - Human Growth & Dev I
PSY312 - Human Growth & Dev II
PSY313 - Psych Research Methods I
PSY314 - Psych Research Methods II
PSY317 - Field & Career Preparation
PSY330 - Social Psychology I
PSY331 - Social Psychology II
PSY334 - Behavior Modification I
PSY335 - Behavior Modification II
PSY339 - Biopsychology
PSY347 - Organizational Behavior
PSY355 - Evolutionary Psychology
PSY360 - Organizational Psych
PSY361 - Industrial Psychology
PSY364 - Environmental Psychology
PSY371 - Human Sexuality I
PSY372 - Human Sexuality II
PSY376 - Foundations of Sport Psy.
PSY401 - Adv Counseling Techniques
PSY407 - Seminar
PSY410 - Organiz Change/Develop
PSY416 - Abnorm Behav Children & Adol
PSY420 - Applied Psych Extern
PSY421 - Senior Project I
PSY422 - Sr Project II
PSY423 - Sr Project III
PSY425 - Motivational Interviewing
PSY434 - Adv Behavior Modification I
PSY435 - Adv Behavior Modification II
PSY436 - Ethics for ABA
PSY445 - OR Tech Relationship Bldg Prog
PSY447 - Well-Being Program
PSY455 - Cognitive Psychology
PSY456 - Performance Management
PSY465 - Ecuador Study Abroad
PSY475 - Capstone in Applied Psychology
PSY485 - Education Assistantship
PSY497 - Special Projects/Training
PSY499 - Independent Study
PSY500 - Life Span Development
PSY505 - Law, Ethics, & Prof Develop
PSY507 - Seminar
PSY512 - Systems Theory
PSY513 - Couples Theory
PSY522 - Indiv Counseling Techniques II
PSY525 - Family Therapy I
PSY526 - Couples Therapy
PSY530 - Research Methods
PSY535 - Treating Diverse Populations
PSY565 - Group Counseling
PSY566 - Child & Adolescent Therapy
PSY575 - Treatment of Substance Abuse
PWR525 - Environmental Ethics
SOC000 - Social Science Elective Lower
SOC00U - Social Science Elective Upper
SOC107 - Seminar
SOC201 - Classical Sociol Theory
SOC202 - Contemporary Soc Theory
SOC204 - Intro to Sociology
SOC204Z - Introduction to Sociology
SOC206 - Social Problems
SOC206Z - Social Problems

SOC207 - Seminar
SOC220 - Current Health Issues
SOC225 - Medical Sociology
SOC235 - Intro to Sustainability
SOC301 - Soc Science Research Methods
SOC302 - Soc Science Resrch Methods II
SOC305 - Rural Health
SOC307 - Seminar
SOC335 - Hlth Inequal & Cult Competency
SOC345 - Aging and Society
SOC407 - Seminar

Management Department

Sonja H. Bickford, *Department Chair*

Professors: H. Neupert

Associate Professors: C. Morgan, K. Weidman

Assistant Professors: D. DaSaro, J. Emard, G. Lomprey, R. Sahay, M. Singh

Instructor: S. Beaudry

Degrees Offered

- Bachelor of Science in Business, with options in:
- Management
- Marketing
- Bachelor of Science in Cybersecurity
- Bachelor of Science in Health Care Management, with options in:
- Administration
- Clinical
- Radiologic Science Management
- Bachelor of Science in Health Informatics
- Bachelor of Science in Information Technology
- Bachelor of Science in Operations Management
- Bachelor of Applied Science in Technology and Management

Minors Offered

- Business
- Health Informatics
- Information Technology
- Innovation & Entrepreneurship
- International Business

Specializations Offered

- Management
- Marketing

Emphases Offered

- Six Sigma Green Belt Certification
- Renewable Energy Management

The Management Department's tech-infused degrees empower graduates through innovative, hands-on, and multi-disciplinary learning experiences, and prepares students to take their place as leaders and managers in contemporary public and private organizations. Faculty members have been selected for their managerial experience and expertise in a diverse array of production and service industries.

Coursework in the Management programs builds upon foundational core courses including management, marketing, accounting, finance, information technology, economics, ethics, globalization, business law, and business presentations. These courses, along with program-specific courses, prepare students for their senior year which includes a senior experience and a capstone course. The senior experience provides management students with an opportunity to integrate and synthesize their educational experience within the context of a "real-world" business problem or project.

As a result of this unique combination of resources and coursework, the Management degree programs remain vital and up to date, providing students with both the technical tools of management and the interpersonal skills that employers most desire. Equally important, each graduate will be poised to positively contribute to society as well as to today's culturally diverse, global workplace.

Department Learning Outcomes

Upon graduating, Management Department graduates should be able to:

1. Apply core concepts in a business environment.
2. Apply the legal, social, ethical, and economic environments of business in a global context.
3. Contribute to the development of a team-oriented and collaborative environment.
4. Solve business problems using decision-support tools and/or research skills.
5. Demonstrate professional communication skills using a variety of delivery methods.
6. Analyze business concepts and apply strategic planning skills to effect change in an integrated manner.

Degree Completion and Co-enrollment at Community Colleges

The Management Department, in partnership with many Oregon community colleges, offers joint enrollment, transfer credit (articulation) agreements and course sequences so that students may complete a degree with coursework taken from multiple institutions. See the Oregon Tech Registrar Office's website, or a Management Department faculty advisor for additional information.

Oregon Tech Online

Many of the management degrees and core management courses are available online to facilitate the needs of degree completion students. Online courses are particularly appropriate for students capable of self-directed educational activities. Online degrees and courses are offered utilizing Internet delivery and collaborative learning. Degrees available online are: BS in Business, Management Option, BS in Health Care Management, Administration Option, Clinical Option, and Radiologic Sciences Management Option; BS in Operations Management; BS in Health Informatics; BS in Information Technology; BAS in Technology and Management.

Required Student Equipment

Successful completion of these degrees requires intensive, hands-on use of computers.

Therefore, all students are required to own their own computer. Financial aid may be available to help defray the cost of this equipment. Please consult the Financial Aid Office at Oregon Tech.

Note: The Portland-Metro campus is a laptop-required campus. Laptop specifications, financial aid, and helpful instructions may be found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Accreditation

Oregon Tech has received specialized accreditation for its business programs through the International Accreditation Council for Business Education (IACBE).

Programs

BACC-BS_BACC-MAJOR - Business Accounting Option
BACC-ND_ETM-MAJOR - Business Accounting Option
BACT-BS_BACT-MAJOR - Accounting
BCM-BS_BCM-MAJOR - Construction Management
BCYB-BS_BCYB-MAJOR - Cybersecurity
BHAD-BS_BHAD-MAJOR - Health Care Mgmt-Admin Mgmt
BHCM-BS_BHCM-MAJOR - Health Care Mgmt-Clinical Mgmt
BHI-BS_BHI-MAJOR - Health Informatics
BHR-BS_BHR-MAJOR - Health Care Mgmt-Rad Science
BIT-BS_BIT-MAJOR - Information Technology
BIT-ND_ETM-MAJOR - Information Technology
BMKT-BS_BMKT-MAJOR - Business Marketing Option
BMKT-ND_ETM-MAJOR - Business Marketing Option
BOMG-BS_BOMG-MAJOR - Operations Management
BOMG-ND_ETM-MAJOR - Operations Management
BSBM-BS_BSBM-MAJOR - Business Management Option
BSBM-ND_ETM-MAJOR - Business Management Option
BTM-BAS_BTM-MAJOR - Technology and Management
CACC-C_CACC-MAJOR - Post Bac Accounting Cert
CBCM-C_CBCM-MAJOR - Heavy Construction Mgmt Cert
CBGL-C_CBGL-MAJOR - Global Leadership Mgmt Cert
CBME-C_CBME-MAJOR - Business Mgmt Essentials Cert
CBMS-C_CBMS-MAJOR - Business Mgmt Info System Cert
CBSM-C_CBSM-MAJOR - Business Systems Mgmt Cert
SACT-S_ACCT-MAJOR - Specialization in Accounting
SESB-S_SESB-MAJOR - Spec in Entrepreneur/Small Bus
SMKT-S_SMKT-MAJOR - Specialization in Marketing

Courses

ACC101 - Intro to Accounting
ACC107 - Seminar
ACC205 - Computerized Accounting
ACC207 - Seminar
ACC305 - Accounting Information Systems
ACC307 - Seminar
ACC320 - Cost Accounting I
ACC321 - Cost Accounting II
ACC325 - Finance
ACC331 - Interm Accounting I

ACC332 - Interm Accounting II
ACC333 - Interm Accounting III
ACC407 - Seminar
ACC411 - Income Tax Procedures
ACC412 - Corporate Taxation
ACC431 - Advanced Accounting I
ACC432 - Advanced Accounting II
ACC435 - Auditing
ACC496 - Senior Project
ACC497 - Senior Project
BA101Z - Intro to Business
BA211Z - Principles of Financial Accoun
BA212 - Prin of Accounting II
BA213Z - Princ of Managerial Accounting
BUS000 - Business General Elective
BUS00U - Business Upper Elective
BUS107 - Seminar
BUS169Z - Data Analysis Using Microsoft
BUS207 - Seminar
BUS215 - Principles of Management
BUS223 - Marketing I
BUS226 - Business Law
BUS226Z - Introduction to Business Law
BUS256 - Graphic Design for Business
BUS304 - Engineering Management
BUS307 - Seminar
BUS308 - Prin of International Business
BUS309 - Introduction to Tourism
BUS313 - Health Care Systems & Policy
BUS314 - Intro to Innovation & Entr.
BUS315P - Principles of Management
BUS316 - Total Quality Health Care
BUS317 - Health Care Management
BUS318 - Marketing II
BUS319 - Integrated Marketing Comm.
BUS326 - Sales/Sales Management
BUS331 - Personal Finance
BUS335 - Innov. & Entrepreneurship II
BUS337 - Prin of Health Care Marketing
BUS349 - Human Resource Management I
BUS356 - Business Presentations
BUS365P - Marketing Management
BUS375 - Experience Business Abroad I
BUS390 - Applied Management Internship
BUS397 - Human Resource Management II
BUS399 - Marketing Special Topics
BUS407 - Seminar
BUS414 - Marketing Research
BUS420 - Applied Management Internship
BUS434 - Global Marketing
BUS435 - Marketing III
BUS441 - Leadership I
BUS442 - Leadership II
BUS447 - Controversial Issues in Mgmt
BUS456 - Business Research Methods
BUS457 - Business Research Methods II
BUS458 - Process Improvement
BUS458P - Process Improvement
BUS467 - Service Management
BUS473 - Marketing Plan Development
BUS475 - Experience Business Abroad II
BUS478 - Strategic Management
BUS480 - Capstone Experience
BUS490 - Applied Management Internship
BUS495 - Senior Project Proposal
BUS496 - Senior Project
BUS497 - Senior Project
BUS507 - Seminar
CM101 - Intro to Construction Mgmt
CM226 - Construction Law
CM280 - Construction Internship
CM315 - Building Information Modeling
CM320 - Mech, Elec, & Plumb Systems
CM330 - Construct Planning/Scheduling
CM331 - Heavy Const Project Scheduling
CM335 - Construction Project Mgmt
CM340 - Construct Budgeting & Takeoffs
CM341 - HC Cost Estimating & Control
CM350 - Cons Equip, Methods, Materials
CM351 - HC Equip, Methods, Materials
CM380 - Heavy Construction Mgmt Intern
CM410 - Simplified Struct Analysis/Des
CM450 - Building Energy Management
CM451 - CSR & Sustainable Construction
CM460 - Smart City Transformations
CM461 - Infrastructure Security
CM470 - Special Topics in CM
CM471 - Infrastructure & Utility Mgmt
CM480 - CM Senior Project
CTE000 - Career Technical Elective
CTE00U - Career Technical Elect Upper
CYB107 - Seminar
CYB201 - Cybersecurity Fundamentals
CYB207 - Seminar
CYB301 - Hacker Tools and Techniques
CYB302 - Sys. Defenses & Incident Rpt.
CYB303 - Security Operations & Analysis
CYB307 - Seminar
CYB351 - Network Security
CYB407 - Seminar
CYB411 - Managing Risk in Info Systems
CYB441 - Managing Risk in Info Systems
ECO000 - Economics Elective
ECO00U - Economics Elective Upper
ECO107 - Seminar
ECO201 - Principles of Economics, Micro
ECO201Z - Principles of Microeconomics
ECO202 - Principles of Economics, Macro
ECO202Z - Principles of Macroeconomics
ECO207 - Seminar
ECO307 - Seminar
ECO407 - Seminar
IMGT323P - Operational Budgeting
IMGT499P - Multinational Operations
MGT107 - Seminar
MGT207 - Seminar

MGT307 - Seminar
MGT321 - Operations Management
MGT322 - Supply Chain Management
MGT323 - Logistics Management
MGT335 - Project Management
MGT345 - Engineering Economy
MGT407 - Seminar
MGT421 - Agile Quality Management
MGT422 - Materials Management
MGT423 - Enterprise Resource Planning
MGT461 - Lean/Six Sigma Management I
MGT462 - Lean/Six Sigma Management II
MGT463 - Lean/Six Sigma Management III
MGT507 - Seminar
MGT561 - Lean Six Sigma Management I
MGT562 - Lean Six Sigma Management II
MGT563 - Lean Six Sigma Management III
MIS102 - Spreadsheet Software Lab
MIS107 - Seminar
MIS113 - Intro to Database Systems
MIS118 - Intro to Programming in C#
MIS145 - Intro to PC Hardware/Software
MIS206 - Intro to Mgmt Info Sys
MIS207 - Seminar
MIS218 - Intermediate Programming in C#
MIS225 - Digital Marketing
MIS240 - Linux Fundamentals
MIS251 - Networking Fundamentals
MIS255 - Health Informatics Cpts & Prct
MIS273 - Systems Administration I
MIS275 - Intro to Relational Databases
MIS285 - Python Programming
MIS307 - Seminar
MIS311 - Intro to Systems Analysis
MIS312 - Systems Analysis I
MIS322 - Systems Analysis & Design II
MIS334 - Business Analytics
MIS341 - Relational Database Design I
MIS344 - Business Intelligence
MIS345 - Health Care Info Systms Mgment
MIS351 - Networking II
MIS352 - Routing and Switching II
MIS357 - Info & Comm Systs in Hlth Care
MIS365 - Cloud Computing
MIS375 - Decision Support Systems
MIS390 - Co-op Field Experience
MIS407 - Seminar
MIS441 - Big Data
MIS442 - Adv Web App Programming
MIS446 - Data Mining
MIS480 - Capstone Experience
MIS490 - Co-op Field Experience
MIS495 - Senior Project Selection
MIS496 - Senior Project Management
MIS497 - Senior Project II
MIS498 - Senior Project III

Manufacturing & Mechanical Eng Department

Abdy Afjeh, *Interim Department Chair*

Professors: D. Culler, Y. Gao, B. Moravec, M. Saber, R. Shih, C. Stover, W. Sun

Associate Professors: W. Abrous, I. Demeshko-Prosnik, S. Sloan

Assistant Professors: A. Budiman, L. Lee

Instructors: S. Lemery, R. Speaks

Degrees Offered

- Master of Science in Manufacturing Engineering Technology
- Bachelor of Science in Manufacturing Engineering Technology
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Mechanical Engineering Technology

Manufacturing Engineering Technology

Degrees Offered

- Master of Science in Manufacturing Engineering Technology
- Bachelor of Science in Manufacturing Engineering Technology

Program Mission Statement

The Manufacturing Engineering Technology Program at Oregon Institute of Technology is an applied engineering technology program. Its mission is to provide graduates with the skills and knowledge for successful careers in Manufacturing Engineering Technology.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Career Opportunities

Manufacturing Engineering graduates will find a wide range of opportunities for employment in manufacturing design, research and development, testing, educational institutions, consulting and business. Manufacturing Engineering Technology also prepares students for further study in graduate school. In today's engineering environment, manufacturing engineers are often called upon to perform a wide range of tasks, from designing and purchasing manufacturing equipment to improving and troubleshooting the manufacturing process. Manufacturing engineers are involved in the design and continuous improvement of products, manufacturing equipment and production tooling. The Manufacturing Engineering curriculum provides education in a variety of areas including manufacturing process, robotics and automation, industrial controls, manufacturing tool design, computer aided design and manufacturing, engineering materials, manufacturing planning and quality control. Technical Electives allow the student flexibility in developing technical breadth or focus in their areas of interest.

Bachelor Program Objectives

The objective of the Manufacturing Engineering Technology undergraduate program is to offer the student a quality education that provides the greatest possible opportunity for rewarding and successful careers. This includes practical training and technical education in engineering, manufacturing processes, and manufacturing equipment as well as supplemental coursework in business, communications, mathematics, science, and social science.

Master Program Objectives

The objective of the graduate program in Manufacturing Engineering Technology is to offer students an advanced manufacturing education that will help them to be successful in their professional career. This includes the theoretical and practical training in manufacturing systems, design for manufacturability, development of lean enterprise, quality engineering, computer-aided manufacturing, project management and information systems. The master's degree is also available online to students meeting the admission requirements for the program. There are no residency requirements for this degree.

Student Preparation

Students planning to enter the Manufacturing Engineering Technology Program are strongly encouraged to take mathematics and science training in high school. In addition, courses such as CAD, computer skills, and industrial arts will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Education Program

Students in the Bachelor of Science degree program have an opportunity to work in industry for a specified time and receive college credit. They are encouraged to meet with the Manufacturing Engineering Technology Undergraduate Program Director. Manufacturing Engineering Technology students at both the Klamath Falls and Portland-Metro campuses have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Manufacturing Engineering Technology program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Mechanical Engineering

Degree Offered

- Bachelor of Science in Mechanical Engineering

Program Mission Statement

The Mechanical Engineering Bachelor of Science at Oregon Institute of Technology is an applied engineering program. Its mission is to provide graduates with the hands-on skills and academic knowledge for successful careers in mechanical engineering or related fields.

Program Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Career Opportunities

Mechanical Engineering is the broadest branch of engineering providing graduates the ability to pursue many varied career paths. It encompasses a wide variety of specialties including alternative energy, mechanical design, thermal/fluids/heat transfer, and mechatronics to name a few. Graduates will find a wide range of opportunities for employment in design, research and development, testing, manufacturing, government agencies, educational institutions, consulting and business. The Mechanical Engineering degree also prepares the student for further study in graduate school.

Objectives of the Program

The Mechanical Engineering Program at Oregon Institute of Technology provides an excellent theoretical and applied or hands on engineering education. The program provides graduates with a foundation in fundamentals, applications, design, project management, communications, and professional and ethical responsibility.

The program offers coursework in all of the above areas beginning with mathematics, science, machining, and computer aided design topics in the freshman year. Engineering science and physics courses are typically taken by the student in the sophomore year. Junior and senior curriculum is devoted to analysis, design, and testing aspects of mechanical engineering. Technical electives are available for students to pursue their particular fields of interest.

Throughout the four-year curriculum, emphasis is placed on oral and written communication skills, teamwork, and hands on laboratory and project work. Graduates are well-rounded engineers and readily accepted into industry or graduate programs.

Student Preparation

Students planning to enter the Mechanical Engineering curriculum should undertake Mathematics/science training in high school. Such courses as algebra, trigonometry, calculus, physics, chemistry, drafting, CAD, writing, speech, and shop classes will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Field Experience

There is an opportunity for students in the Bachelor of Science degree program to work in industry for a specified time and receive college credit. Those interested in such an opportunity are encouraged to work out the details with the Mechanical Engineering Program Director. Mechanical Engineering students at the Klamath Falls campus have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Mechanical Engineering Technology

Degree Offered

- Bachelor of Science in Mechanical Engineering Technology

Program Mission Statement

The Mechanical Engineering Technology Program at Oregon Institute of Technology is an applied engineering technology program. Its mission is to provide graduates with the skills and knowledge for successful careers in mechanical engineering and manufacturing engineering.

Program Learning Outcomes

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;

2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;

3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and

5. an ability to function effectively as a member as well as a leader on technical teams.

Career Opportunities

Mechanical Engineering Technology graduates find a wide range of opportunities for employment in design, research and development, testing, manufacturing, government agencies, educational institutions, consulting and business. The largest number of graduates are employed by manufacturing firms. There, the graduates may develop new products, improve existing products, modify existing products for easier manufacture, or develop equipment for use in the production process. The work done by Mechanical Engineering Technologists varies widely. Interfacing computers and machines is a rapidly growing area of employment. This involvement with robotics and automation is having an impact on most mechanical systems. New materials such as high strength ceramics and polymers, fiber reinforced plastics, and new bonding agents are growing in importance and their applications will offer many interesting and fulfilling careers. Energy systems become increasingly important as energy costs rise. Aerospace firms employ many Oregon Tech graduates in design, testing, and manufacturing. Careers in such traditional areas as power plants, heating and cooling systems, gas and steam turbines, and automotive systems are within the domain for the Mechanical Engineering Technologist.

Objectives of the Program

The objective of the Mechanical Engineering Technology Program is to ensure that graduates of this curriculum acquire competency in those theoretical, applied engineering and practical subjects necessary to become successful in their careers. The program strives to maintain a reputation for academic standards that will assure graduates a welcome by prospective employers.

Student Preparation

Students planning to enter the Mechanical Engineering Technology curriculum should undertake mathematics-science training in high school. Such courses as algebra, geometry, trigonometry, physics, chemistry, drafting, CAD, English, writing, speech, and shop classes will prove beneficial.

Note: The Manufacturing and Mechanical Engineering and Technology Department is a laptop-required department with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Cooperative Field Experience

There is an opportunity for students in the Bachelor of Science degree program to work in industry for a specified time and receive college credit. Those interested in such an opportunity are encouraged to work out the details with the Mechanical Engineering Technology program director. MET students at both the Klamath Falls and the Portland-Metro campuses have the opportunity to participate in the state-wide MECOP internship program. For information, see the following Web site: https://mecopinc.org.

Accreditation

The Bachelor of Science in Mechanical Engineering Technology program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Manufacturing Engineering Technology, BS

The Bachelor of Science in Manufacturing Engineering Technology requires completing 180 credit hours, as prescribed in the following curriculum outline. Several of these courses are titled manufacturing elective, and allow the student some flexibility to pursue specific career objectives within the manufacturing engineering field. Upper-division manufacturing engineering technology courses not specifically required for graduation, as well as selected upper-division mechanical engineering technology courses and other approved courses, may be used as manufacturing electives. Students should contact their advisor for specific details as to which courses qualify as manufacturing electives.

Degree Requirements

The Bachelor of Science in Manufacturing Engineering Technology requires completing 192 credit hours, as prescribed in the following curriculum outline. Several of these courses are titled manufacturing elective, and allow the student some flexibility to pursue specific career objectives within the manufacturing engineering field. Upper-division manufacturing engineering technology courses not specifically required for graduation, as well as selected upper-division mechanical engineering technology courses and other approved courses, may be used as manufacturing electives. Students should contact their advisor for specific details as to which courses qualify as manufacturing electives.

Programs

BDME-BS_BDME-MAJOR - Dual Mech Eng/MFG Eng Tech
BDMT-BS_BDMT-MAJOR - Dual Mech Eng Tech/MFG Eng Tec
BMAN-BS_BMAN-MAJOR - Manufacturing Engineering Tech
BME-BS_BME-MAJOR - Mechanical Engineering
BME-ND_ETM-MAJOR - Mechanical Engineering
BMET-BS_BMET-MAJOR - Mechanical Engineering Tech
BMET-BS_BMETMAN-MAJOR - Mechanical Engineering Tech
BMET-ND_ETM-MAJOR - Mechanical Engineering Tech
MMAN-MS_MMAN-MAJOR - Manufacturing Engineering Tech

Courses

ENGR107 - Seminar
ENGR111 - MMET Orientation
ENGR211 - Engineering Mechanics: Statics
ENGR212 - Engineering Mech: Dynamics

ENGR213 - Engr Mech: Strength of Mat
ENGR266 - Engineering Computation
ENGR307 - Seminar
ENGR326 - Electric Power Systems
ENGR355 - Thermodynamics
ENGR415 - Occupational Safety
ENGR445 - Engineering Project Management
ENGR491 - MMET Senior Projects I
ENGR492 - MMET Senior Projects II
ENGR493 - MMET Senior Projects III
MECH107 - Seminar
MECH111 - MMET Orientation
MECH207 - Seminar
MECH211 - Engineering Mechanics:Statics
MECH212 - Engineering Mechanics:Dynamics
MECH213 - Engineering Mechanics:Material
MECH221 - Statics
MECH222 - Strength of Materials I
MECH223 - Strength of Materials II
MECH236 - Fund of Elec Circuits
MECH260 - Engineering Materials I
MECH266 - Engineering Computation
MECH307 - Seminar
MECH313 - Thermodynamics II
MECH315 - Machine Design I
MECH316 - Machine Design II
MECH318 - Fluid Mechanics I
MECH323 - Heat Transfer I
MECH326 - Electric Power Systems
MECH351 - Finite Element Analysis
MECH355 - Thermodynamics
MECH360 - Engineering Materials II
MECH363 - Engineering Instrumentation
MECH404 - Co-op Field Practice
MECH405 - Reading and Conference
MECH407 - Seminar
MECH415 - Occupational Safety
MECH417 - Fluid Mechanics II
MECH418 - Fluid Mechanics II
MECH421 - Intro to Wind Tunnels
MECH426 - Fluid Power Systems
MECH433 - HVAC
MECH436 - Classical Control Systems
MECH437 - Heat Transfer II
MECH475 - Parametric Modeling
MECH480 - Mechanical Vibrations
MECH485 - Fund of Engineering Exam Prep
MECH490 - Senior Project I
MECH491 - Senior Projects II
MECH492 - Senior Project III
MET102P - Engineering Drawing II
MET107 - Seminar
MET162P - Materials I Lab
MET207 - Seminar
MET241 - CAD for Mechanical Design I
MET242 - CAD for Mechanical Design II
MET307 - Seminar
MET326 - Electric Power Systems
MET375 - Solid Modeling
MET407 - Seminar
MET492 - Senior Projects III
MFG103 - Intro Welding Proc
MFG107 - Seminar
MFG112 - Intro to Mfg Processes
MFG120 - Intro Machining Proc
MFG207 - Seminar
MFG271 - Numerical Control Prog
MFG272 - Computer Aided Machining
MFG307 - Seminar
MFG313 - Mfg Analysis & Planning
MFG314 - Geom Dimension/Tolerance
MFG331 - Industrial Controls
MFG333 - Stat Methods Qual/Improv
MFG341 - Numerical Control Prog
MFG342 - Computer Aided Machining
MFG343 - Manufacturing Tool Dsgn
MFG344 - Dsgn of Mfg Tooling
MFG407 - Seminar
MFG428 - MFG Engr Certification
MFG447 - Lean Manufacturing
MFG453 - Automation & Robotics
MFG454 - Thermal Manufacturing Process
MFG463 - Sr Project III
MFG507 - Seminar
MFG563 - Inventory/Supply Train Mgt
MFG595 - Selected Grad Topics in Manf
MFG596 - Selected Topics/Eng Sci&Design
MFG597 - Selected Topics/Comp Integrat
MFG598 - Selected Topics/Mat & Process
MFG599 - Selected Topics/Finance & Mngt

Medical Imaging Technology Department

Rich Carson, *Department Chair*

Professors: R. Cole, R. Hoylman, J. Isaacson, D. McCollam, D. McDonnell, S. Schultz

Associate Professors: V. Bennett, R. Carson, T. Guthrie, B. Kowash

Assistant Professors: L. Jolly, C. Giacomelli

Instructors: W. Rogers

Participating Faculty: J. Steenport (Online PACs)

Degrees Offered

- Bachelor of Science in Diagnostic Medical Sonography
- Bachelor of Science in Echocardiography
- Bachelor of Science in Nuclear Medicine and Molecular Imaging Technology
- Bachelor of Science in Radiologic Science
- Bachelor of Science in Vascular Technology

Certificates Offered

- Picture Archiving and Communication Systems (PACS)

Accreditation

Oregon Institute of Technology is accredited by Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052-3981, an institutional accrediting body recognized by the Council for Higher Education Accreditation and/or the Secretary of the U.S. Department of Education.

The Diagnostic Medical Sonography, Echocardiography and Vascular Technology programs are programmatically accredited through the Commission on Accreditation of Allied Health Education Programs (CAAHEP), upon review of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

Echocardiography - Goal and Mission Statement

To prepare competent entry-level adult cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Diagnostic Medical Sonography - Goal and Mission Statement

To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Vascular Technology - Goal and Mission Statement

To prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

Bachelor of Science Program Descriptions

The Department of Medical Imaging Technology offers bachelor's degrees in five professional programs, which encompass the spectrum of imaging sciences. The curriculum of each bachelor's degree program provides the technical, scientific, and communication skills essential for the application of learned concepts. Each program prepares students for immediate employment and for successfully passing the national and state registry examinations in each field.

Diagnostic Medical Sonography (also called sonography, ultrasound, or general ultrasound)

Sonography uses high frequency sound wave imaging and Doppler instrumentation to aid in the diagnosis of pathology and disease processes. The sonographer gathers pertinent patient history, creates images, and submits preliminary findings to the reading physician. Common exams include: obstetric, gynecological, peritoneal, retroperitoneal, pelvic, thoracic, musculoskeletal, extremity, neurological, and superficial procedures. Invasive applications are also performed in most clinical settings.

Program Learning Outcomes

• Effective oral, visual, and written communication skills.

• The ability to work effectively in teams.

• The ability to provide basic patient care and comfort while utilizing ethical, professionalism and HIPAA guidelines.

• Knowledge and understanding of human gross and sectional anatomy relative to normal and abnormal sonographic imaging.

• Knowledge and understanding of human physiology, pathology and pathophysiology.

• Knowledge and understanding of ultrasound physical principles and instrumentation.

• Knowledge of sonographic biological effects, proper application of sonographic instrumentation relative to imaging and image quality.

• Appropriate ergonomic scanning applications.

• An understanding of diverse cultural and humanistic traditions in the global society.

DMS Program Educational Objectives

The following are the faculty expectations of graduates from the Diagnostic Medical Sonography program:

• Employ diagnostic sonographic imaging techniques, critical thinking skills, effective communication skills, and professional judgment.

• Effectively apply ergonomically correct scanning techniques.

• Successfully complete nationally recognized credential examinations.

• Develop a dedication to independent life-long learning and professional contributions.

Echocardiography

Echocardiography is a safe method of obtaining ultrasound images for diagnosis of cardiac pathology in adult and pediatric patient populations. Echocardiographers perform imaging exams that include acquisition of detailed images of heart anatomy, evaluation of pathologies, and measurement/analysis of hemodynamic flow patterns within the heart and the heart's major vessels. The Echocardiographer prepares the study images and reports pertinent findings to the interpreting cardiologist as part of the diagnostic process.

Program Learning Outcomes

Graduates from this program will be able to:

1. Demonstrate the ability to communicate effectively in oral, written and visual forms.

2. Demonstrate the ability to work effectively in teams.

3. Demonstrate an ability to provide basic patient care and comfort.

4. Demonstrate professional judgment, discretion, and ethics.

5. Demonstrate knowledge and understanding of human gross anatomy, sectional anatomy, and normal and abnormal cardiovascular anatomy.

6. Demonstrate knowledge and understanding of cardiovascular physiology, pathology, and pathophysiology.

7. Demonstrate knowledge and understanding of cardiovascular physical principles and instrumentation.

8. Demonstrate knowledge and understanding of clinical echocardiographic diagnostic procedures and testing.

9. Demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

Echocardiography Program Educational Objectives

1. The program prepares students to utilize diagnostic techniques, sound judgment and good decision making to provide patient services.

2. The program communicates the importance of being credentialed (RDCS, RCS) in the profession of echocardiography.

3. The program prepares students who think critically, communicate effectively, and exemplify professional ethics.

4. The program conveys the importance of becoming life-long learners and responsible citizens.

Nuclear Medicine and Molecular Imaging Technology

Nuclear Medicine and Molecular Imaging Technology is an imaging science that demonstrates pathology through physiologic processes using radioactive compounds. Sometimes these data are fused with anatomical data such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). This branch of imaging science has been in existence for over four decades. This training also prepares the future Nuclear Medicine Technologist with skills in CT, MRI, PET/ CT, and Spect/CT.

Program Learning Outcomes

Students completing the Nuclear Medicine and Molecular Imaging Technology program should possess the following abilities, measured by observation throughout the students' educational experience at Oregon Tech:

1. The student will apply knowledge, judgement and critical thinking when problem solving
2. The student will demonstrate ethical reasoning through a variety of scenarios in lecture and lab, and adherence to professional responsibilities identified on their Professional Evaluation performed at the end of each term.
3. The student will demonstrate teamwork by contributing equally to team goals, and interacting with peers and faculty in a respectful and supportive manner.
4. The student will demonstrate effective communication with other students, staff, and faculty in a respectful manner and at an appropriate time.
5. The student demonstrate emotional intelligence competencies when working with others.

Radiologic Science

This program has been in existence at Oregon Tech for 70 years. The training prepares the future radiologic technologist with a wide variety of skills, including radiography, fluoroscopy, mobile and surgical radiography, Computed Tomography (CT), Mammography, Cardiovascular Interventional Technology (CIT), Quality Assurance, and imaging department management.

Program Learning Outcomes

Students completing the Radiologic Science program should possess the following abilities and are measured by observation throughout the students' educational experience at Oregon Tech:

- An ability to practice organizational skills using prioritization.
- An ability to demonstrate quality work in the didactic and laboratory settings.
- An ability to comprehend radiologic theory and principles and apply them in the laboratory setting.
- An ability to work in a stressful environment and perform effectively in under pressure.
- An ability to use good judgement and critical thinking skills.
- An ability to demonstrate confidence in their knowledge and skills.
- An ability to demonstrate attention to details and follow instructions.
- An ability to practice initiative.
- An ability to approach tasks and duties with a positive attitude.
- An ability to accept and apply constructive criticism.
- An ability to be punctual and reliable.
- An ability to practice positive interpersonal skills with faculty, classmates, other professionals.
- An ability to effectively work in a team setting.

Program Educational Objectives

The following are the faculty expectations of graduates from the Radiologic Science program:

- Be compassionate, caring healthcare professionals.
- Be eligible, well prepared, and able to pass the ARRT credentialing examination.
- Have immediate job placement potential within six months of graduation.
- Work in advanced imaging fields and complete advanced imaging registries.

Vascular Technology

Vascular technology is a profession which utilizes ultrasound, Doppler, color Doppler and various physiologic testing procedures to aid in the diagnosis of disease of the vascular system. Vascular technologists conduct patient interviews, compile health histories and determine risk assessments pertaining to vascular disease. The technologists choose appropriate testing modalities and provide referring physicians with preliminary interpretation of results.

Program Learning Outcomes

1. The ability to communicate effectively in oral, written and visual forms.
2. The ability to work effectively in teams.
3. An ability to provide basic patient care and comfort.
4. Professional judgment and discretion including ethics.
5. Knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal vascular anatomy.
6. Knowledge and understanding of vascular physiology, pathology, and pathophysiology.
7. Knowledge and understanding of vascular physical principles and instrumentation.
8. Knowledge and understanding of clinical vascular diagnostic procedures and testing
9. An understanding of diverse cultural and humanistic traditions in the global society.

Facilities

Oregon Tech's state-of-the-art imaging equipment allows medical imaging students to become familiar with a wide variety of imaging procedures like those performed in most medical centers. Students may also spend significant time at Sky Lakes Medical Center where they will gain experience directly with patients, prior to externship. This experience plus the academic coursework prepares the student well for the medical imaging professions.

Externships

All five of the bachelor's degree programs in medical imaging culminate in a senior year of clinical externship at a medical center. The 11-month externship is spent at the affiliate institution under the supervision of a clinical instructor. Students do not have classes on the Oregon Tech campus during this year. The location of externship will be determined by a lottery conducted by medical imaging faculty. All students will be guaranteed an externship subject to the following:

1. All academic requirements must be met before externship assignments will be made.
2. Students must satisfy Oregon requirements for clinical placement as listed in Oregon Administrative Rules (OAR 409-030-0100 to 409-030-0250).

Upon successful completion of the externship year, imaging students will be eligible to sit for the professional registry pertaining to their degree.

Admission Requirements

Pre-Medical Imaging Technology: Freshman Year

Enrollment is open to all students who meet the general entry requirements to the university. Students will be listed as Pre-Medical Imaging Technology (Pre-MIT) students. Admittance to the Oregon Tech Pre-MIT Program does not mean the student has been accepted into a specific MIT program.

Program Selection Criteria

Selection criteria are available on the MIT website at www.oit.edu/mit. Students must complete all the courses, including general education, in the specified freshman year (pre-medical imaging) curriculum. Selection will be made at the end of the spring term of the pre-medical imaging technology year. The number of students selected each year will be determined by the number of qualified applicants, and by the availability of clinical sites. Therefore, the number of qualified applicants may exceed the number of spaces available. Prior acceptance does not guarantee future acceptance into any MIT Program. Students must reapply yearly.

Selection will be based upon the following criteria and point system:

1. **GPA:** Students must have a total of a 2.95 **weighted** GPA (though a 3.0 or higher is highly recommended), in the following courses (or equivalent transfer courses) to apply to one of the five MIT Programs.

- BIO 200 - Medical Terminology
- BIO 231 - Human Anatomy/Physiology I
- BIO 232 - Human Anatomy/Physiology II
- BIO 233 - Human Anatomy/Physiology III
- CHE 101 - Intro to General Chemistry
- CHE 104 - Intro to General Chemistry Lab
- MATH 112Z - Precalculus II: Trigonometry
- MIT 103 - Intro to Med Imaging

  GPA points are calculated as GPA x 10. (For example, a 3.5 GPA x 10 = 35). To determine how to calculate weighted GPA, see website at www.oit.edu/mit.

2. All applicants must attend an Oregon Tech hosted selection event at the end of spring term. Several activities are conducted during this event to allow students to demonstrate communication skills, and professionalism. Faculty from the MIT Department and industry leaders are present at the selection event to evaluate those skills.

Application Requirements

Applications are available on the MIT website at www.oit.edu/mit.

Applications are due spring term. Incomplete applications will not be accepted. An application fee of $75 is required. There are no refunds of the application fee. Repeat applicants must follow the same procedures as first-time applicants.

The application form allows ranking of programs by choice (first and second) and only one application per student will be accepted.

Transfer Students

Transfer students who meet the academic requirements of the pre-medical imaging technology year, will not find a course at another college which substitutes for MIT 103 - Intro to Med Imaging. This course may be taken as a distance learning course. It must be completed in the summer, fall, winter or spring term prior to the application to a professional program. The MIT application is available at www.oit.edu/mit. Transfer students must apply to both Oregon Tech and MIT using two separate application processes.

Graduation Requirements

All credits listed in the curriculum for the catalog year a student begins a program must be fulfilled.

Students must maintain a 2.00 GPA to be eligible for graduation. In addition, a final grade of "C" or better must be earned in all professional courses (DMS, ECHO, NMT, RDSC, VAS), and science/mathematics courses to continue in the program. A final grade of "C" or better must be also earned in all required communications courses by the end of the junior year to continue on in the program. Once the student is admitted into a professional program as a sophomore, all curricular requirements must be met within four academic years. Rare exceptions to the time limitation will be considered on a case by case basis, at the discretion of the re-admittance committee described below. When a student unsuccessfully attempts a programmatic course fall term, sophomore year, they must reapply to the program or another imaging program. If the student has an unsuccessful attempt subsequent to fall term sophomore year the student must submit a letter of intent to the program director of the specific program they seek to re-enter. The MIT re-admittance committee will determine if another opportunity will be granted. If re-admittance is approved additional requirements will be prescribed by the MIT committee.

Other requirements such as auditing courses, attending labs, and/or remedial work will be specified by the committee. The student must remain in compliance with committee's recommendations and requirements to satisfy degree progress. When a student attempts unsuccessfully a second time in the same or a different programmatic course, they are terminated from that program. Additionally, if a student receives a "D," "F" or "W" in two or more programmatic courses in one term, they will be dismissed from that program. The student may apply for admittance to a second imaging program under the same application criteria as other applicants. After two unsuccessful attempts to complete two different programs, the student may not apply for a third program.

Career Opportunities

There continues to be a high demand for bachelor's degree prepared medical imaging professionals. Graduates have excellent opportunities for employment in hospitals, clinics, private practice, state and federal agencies, and with appropriate experience, in supervision, education and industry.

Degree Completion Programs

The Diagnostic Medical Sonography, Echocardiography, Radiologic Science and Vascular Technology programs offer degree completion programs for registered technologists (in good standing) who wish to pursue a bachelor's degree in their field. These programs are fully online. There is no requirement to come to campus.

Programs

BECH-BS_BECH-MAJOR - Echocardiography
BECO-BS_BECO-MAJOR - Echocardiography
BECO-ND_HAS-MAJOR - Echocardiography
BNUC-BS_BNUC-MAJOR - Nuclear Med Molecular Imaging
BNUC-ND_HAS-MAJOR - Nuclear Med Molecular Imaging
BRSC-BS_BRSC-MAJOR - Radiologic Science
BRSC-ND_HAS-MAJOR - Radiologic Science
BRSO-BS_BRSO-MAJOR - Radiologic Science
BRSO-ND_HAS-MAJOR - Radiologic Science
BSON-BS_BSON-MAJOR - Diagnostic Medical Sonography
BSON-ND_HAS-MAJOR - Diagnostic Medical Sonography
BSOO-BS_BSOO-MAJOR - Diagnostic Medical Sonography
BVT-BS_BVT-MAJOR - Vascular Technology
BVT-ND_HAS-MAJOR - Vascular Technology
BVTO-BS_BVTO-MAJOR - Vascular Technology
BVTO-ND_HAS-MAJOR - Vascular Technology
CMRI-C_CMRI-MAJOR - Magnetic Resonance Imagng Cert
CPAC-C_CPAC-MAJOR - Picture Archive/Comm Sys Cert
PMIT-ND_HAS-MAJOR - Pre-Medical Imaging Gen Study
PMIT-PMIT-MAJOR - Pre-Medical Imaging Gen Study

Courses

BIO220 - Cardiovascular Physiology
BIO335 - Cross-Sectional Anatomy
BIO375 - Cross Sectional Anatomy II
DMS107 - Seminar
DMS207 - Seminar
DMS223 - App of Abdominal Sonogr I
DMS224 - App of Abdominal Sonogr II
DMS225 - App of Abdominal Sonogr III
DMS234 - Pelvic Sonography
DMS235 - DMS Patient Care
DMS252 - Sophomore Lab I
DMS253 - Sophomore Lab II
DMS254 - Sophomore Lab III
DMS307 - Seminar
DMS316 - Survey of Vascular Tech
DMS337 - Breast Sonography
DMS342 - Survey of Adult Echo
DMS343 - Neonatal/Pediatric Sonography
DMS346 - Musculoskeletal Sonography
DMS352 - Junior Lab I
DMS353 - Junior Lab II
DMS354 - Junior Lab III
DMS365 - Sonographic Pathology
DMS370 - Obstetrical Sonography
DMS373 - Obstetrical Pathology
DMS375 - Fetal Echocardiography
DMS388 - Externship Preparation
DMS407 - Seminar
DMS430 - DMS Externship
DMS430A - DMS Externship
DMS430B - DMS Externship
ECHO107 - Seminar
ECHO207 - Seminar
ECHO225 - Cardio Patient Mgmt Practices
ECHO231 - Echocardiography I
ECHO232 - Echocardiography II
ECHO307 - Seminar
ECHO320 - Cardiographic Methods
ECHO321 - Stress & Transesophageal Echo
ECHO325 - Pediatric Echo

ECHO332 - Invasive Cardiology
ECHO333 - Echocardiography III
ECHO334 - Echocardiography IV
ECHO376 - Survey of Vascular Testing
ECHO385 - Echo Lab Management
ECHO388 - Externship Preparation
ECHO407 - Seminar
ECHO420 - Echo Externship
ECHO420A - Echo Externship
ECHO420B - Echo Externship
MIT103 - Intro to Medical Imaging
MIT107 - Seminar
MIT207 - Seminar
MIT209 - PACS I: Intro to PACS
MIT219 - PACS II: Comm and Admin
MIT225 - Patient Care in Sonography
MIT229 - PACS III: Tech Req & Imag Qual
MIT231 - Sonographic Princ & Instru I
MIT232 - Sonographic Princ & Instru II
MIT234 - Trauma/Sur Radiography
MIT239 - PACS IV: Implem & Sys Mgmt
MIT249 - PACS V: DICOM
MIT259 - PACS VI: PACS Security
MIT307 - Seminar
MIT308 - Cadaver Imaging Problems
MIT310 - Cadaver Imaging Problems
MIT341 - Magnetic Resonance Imaging
MIT342 - Mag. Resonance Imaging II
MIT356 - Computed Tomography II
MIT365 - Mag. Resonance Imaging Review
MIT407 - Seminar
MIT411 - Magnetic Resonance Externship
NMT107 - Seminar
NMT205 - Nuclear Med Admin
NMT207 - Seminar
NMT212 - Nuc Med Phy/Radiation Biophy
NMT215 - Radiochem/Radiopharmacy
NMT217 - Patient Care
NMT225 - Nuclear Phy/Instrumtn
NMT256 - Cardiovascular Imaging
NMT307 - Seminar
NMT311 - Imaging Procedures I
NMT312 - Imaging Procedures II
NMT313 - Therapeutic Procedures
NMT315 - Breast Imaging
NMT325 - SPECT Imaging/Comp Appl
NMT346 - Magnetic Resonance
NMT355 - Computed Tomography
NMT367 - PET Imaging
NMT388 - Externship Preparation
NMT407 - Seminar
NMT410 - Nuclear Med Tech Extern
RDSC107 - Seminar
RDSC201 - Imaging Techniques I
RDSC202 - Imaging Techniques II
RDSC205 - Patient Care
RDSC207 - Seminar
RDSC210 - Radiograph Position I
RDSC211 - Radiograph Position II
RDSC233 - Contrast Media Proc
RDSC235 - Equipment Operation & Maint
RDSC272 - Radiation Protection
RDSC301 - Radiograph Position III
RDSC307 - Seminar
RDSC320 - Surg/Trauma/Mobl Rdgrph
RDSC326 - Crdvsclr/Interv Tech
RDSC354 - Mammography
RDSC355 - Computed Tomography
RDSC356 - Magnetic Resonance
RDSC366 - Radiographic Pathology
RDSC388 - Externship Preparation
RDSC407 - Seminar
RDSC410 - Rad Science Externship
RDSC411 - Special Rad Sci Extern
RDSC411A - Special Rad Sci Extern
RDSC411B - Special Rad Sci Extern
VAS107 - Seminar
VAS207 - Seminar
VAS214 - Vascular Anatomy
VAS225 - Patient Mgmt Practices
VAS245 - Periphrl Venous Disease
VAS246 - Perphrl Arterial Disease
VAS307 - Seminar
VAS335 - Radiogrphc Vasclr Anat
VAS337 - Survey of Echocardiography
VAS365 - Abdominal Vasc Disease
VAS366 - Spec Circulatory Problms
VAS367 - Cerebrovascular Disease
VAS375 - Survey Abdom Sonography
VAS385 - Vascular Lab Mgmt
VAS388 - Externship Preparation
VAS407 - Seminar
VAS420 - Vascular Tech Extern
VAS420A - Special Vas Tech Extern
VAS420B - Special Vas Tech Extern

Medical Lab Science Department

Caroline Doty, *Department Chair*

Dawn Taylor, *Program Director*

Associate Professor: D. Taylor, C. Doty

Assistant Professors: L. Sprauer

Instructors: R. Barrett, D. Mooers

Adjunct Faculty: The program utilizes medical laboratory professionals in medical, research, and public health laboratories.

Degree Offered

- Bachelor of Science in Medical Laboratory Science (joint degree with Oregon Tech and Oregon Health and Science University - OHSU)
- Bachelor of Science in Medical Laboratory Science, Degree Completion

Oregon Tech, in partnership with OHSU, offers a course of study leading to a Bachelor of Science in Medical Laboratory Science degree. Students take coursework that combines a rigorous competency-based science curriculum with community-sponsored clinical training. Graduates are prepared to enter the medical laboratory science profession and to pursue career opportunities in various laboratory settings including medical, research, and public health. Students who successfully complete the degree program are eligible to take the *Medical Laboratory Scientist (MLS)* national board certification examination offered by the *American Society for Clinical Pathology (ASCP)*.

Accreditation

The Medical Laboratory Science professional program is accredited by the *National Accrediting Agency for Medical Laboratory Science (NAACLS)*, 5600 North River Road, Suite 720, Rosemont, Illinois 60018-5119, (773) 714-8880.

Mission Statement

The mission of the Oregon Tech • OHSU Medical Laboratory Science Program is to educate, train, and graduate professionally competent and ethical individuals, committed to life-long learning, and who are prepared to meet current and future workplace challenges in medical laboratory science.

Program of Study

During the *pre-professional phase* of study, students complete a minimum of 95-quarter hours that includes (a) 47-quarter hours of general education coursework, including two college-level math courses, one of which must be statistics; (b) 24-quarter hours of biology (200 level or above) that must include one microbiology course and one immunology course; and (c) 24-quarter hours of chemistry (200 level of above). Students must receive a grade of C or better in all required course work.

Through an application process, students are selected to enter the professional program.

The MLS professional program is admission-restricted and 15 months (5 consecutive terms) long, beginning in September of the academic year in which a student is admitted and ending in December of the following year. Admitted students spend four quarters completing medical laboratory science-specific coursework on the Oregon Tech Portland-Metro campus. Prior to clinical externship rotations, students spend 2 weeks in a simulated experience. Upon successful completion of the on-campus work, students are assigned to one or more program-affiliated laboratories to complete an extended fifth term (12 weeks) of clinical training. During clinical training, students spend 40 hours per week applying knowledge and skills to perform a wide variety of testing in a contemporary, accredited medical laboratory and to further develop discipline-specific competency under supervision of clinical instructors. Currently, the Department of MLS maintains affiliations with accredited laboratories in Oregon, Washington, Idaho, Nevada, Arizona, Colorado, Hawaii, Alaska, and Wyoming.

Students admitted to the MLS professional program are guaranteed placement for their clinical training subject to the following policies and procedures:

1. Due to the variable availability of training sites year to year, student placement at a specific site and term may not be possible. Therefore, placement of students for clinical training is determined by the program in consultation with clinical affiliate training sites.
2. Before beginning clinical training, students must comply with all training site and Oregon standardized administrative requirements including but not limited to immunizations, screening (e.g., background check, drug screen, etc.), trainings (e.g., safety, CPR, etc.), and proof of health insurance coverage valid for the entire clinical training period.
3. All academic and non-academic requirements must be met to the satisfaction of program faculty before a student is permitted to start clinical training.
4. Students are solely responsible for transportation and housing needs associated with their clinical training placement.

Professional Program Application and Admission Requirements

The professional program admits one cohort of students a year. All prospective students should submit completed applications from September 1st to January 15th. Students can download application instructions and the application forms from URL http://www.oit.edu/portland-metro/academics/degrees/medical-laboratory-science/how-to-apply.

Importantly, transfer and post-baccalaureate students must also submit a separate application for admission to Oregon Tech. Prospective students may apply online at URL http://www.oit.edu/portland-metro/admissions. When asked, applicants should select "***Pre MLS***" as their major. NOTE: **Admission to Oregon Tech does not mean that an applicant has been admitted to the MLS professional program**.

Admission to the professional program is criterion-based, competitive, and decided by the program admissions committee. Admission selection is based upon scholarship, personal qualifications, recommendations from three references, and interview results. Selected candidates are interviewed in February or early March and applicants selected for admission are notified in writing by the Program Director during March. To be eligible for admission, candidates for the MLS professional program must meet the following minimum eligibility requirements:

- **Those applicants who have earned a Baccalaureate degree must have completed a minimum of 95 transferable quarter credit hours to include:**

- **Mathematics**: one college-level math course. Minimum requirements are met by MATH 111Z - Precalculus I: Functions. **Additional required math course**: statistics;
- **Biology**: 24-quarter credit hours that must include one course in immunology and a course in microbiology. The microbiology coursework must include a laboratory component either integral to the course or taken separately; courses must be at the 200-level or above and not survey type. **Highly recommended courses**: general biology, genetics, anatomy and physiology, cellular or molecular biology; Medical Terminology course work will not apply towards the biology requirement.
- **Chemistry**: 24-quarter credit hours of chemistry; courses must be at the 200 level or above and not survey type. **Highly recommended courses**: general chemistry, organic chemistry, biochemistry, and quantitative analysis

- Those applicants who have not earned a Baccalaureate degree must have completed a minimum of 95 transferable quarter hours to include the prerequisites listed in 1 above and:

1. 18-quarter credit hours of Communication course work including specified course work in writing and speech (see Baccalaureate General Education Requirements described elsewhere in this catalog);
2. 9-quarter credit hours of Humanities course work in topical areas such as Art, Art History or Appreciation, Music, Music History or Appreciation, English (excluding writing and speech), Linguistics, and Philosophy (no more than three credits of activity of performance-based courses may be used in this category); and
3. 12-quarter credit hours of Social Science course work in topical areas such as Anthropology, Economics, Geography, History, Political Science, Psychology, and Sociology.

Prerequisite course work does not need to be completed to apply, but official transcript(s) documenting completion of all outstanding prerequisite coursework with grades of 'C' or better must be on file with the MLS Department office before any offer of admission is finalized. The Oregon Tech Registrar's office will review each applicant's transcripts to confirm that the requirements are met. Applicants who have met **admission requirements** seven or more years prior to application to the MLS Program must complete additional academic work to qualify. This may be accomplished by:

- Completing a course in chemistry and a course in biology with a grade of C or better; courses must be at the 200-level or above and not survey type; or
- Receiving credit by examination in biochemistry and in microbiology; or
- Achieving a CLEP score at or above 50 on both the biology and chemistry examinations.

Applicants seeking transfer credit from international institutions must provide a credential evaluation from an Oregon Tech-approved credential evaluation service and must meet requirements as described in two above. Contact the Oregon Tech Office of Admissions on-line at http://www.oit.edu/admissions/international-students or by telephone 503.821.1250 or 1.800.422.2017 for additional information.

- All applicants must have a minimum GPA of 2.5 to apply.

Health Insurance and Immunizations

Students admitted to the MLS program are required to have and show proof of comprehensive health insurance coverage. This is because during a student's tenure in the MLS program they will work with patient samples and be in close contact with patients who may be ill. This means MLS program students are at a high risk for exposure to certain infections. Health insurance is not available through the university. Students must acquire this insurance on their own.

Note: MLS program students are NOT permitted to begin the program or attend a clinical externship without demonstrating proof of health insurance.

All MLS program students are required to meet immunization requirements as dictated by OARs 409-030-0100 to 409-030-0250. Students will be provided with current information once accepted into the professional program.

Essential Requirements

In accordance with its accreditation standards, the MLS program has established essential requirements. To be admitted and maintain enrollment, participate in, and successfully complete the MLS professional program, a student must meet these non-academic standards of performance:

1. Students must demonstrate the ability to acquire and to communicate information. Specifically, a program student must be able to:

1. Read for comprehension and follow verbal and written instructions to demonstrate mastery of information presented in coursework, including relevant content in basic science and clinical courses, at a level deemed appropriate by the faculty.

2. Effectively communicate in written and spoken English in order to transmit information to faculty, staff, peers, and members of the health care team.
3. Make a correct judgment in seeking supervisory help and consultation in a timely manner.
4. Competently utilize technology to research, investigate, acquire and present information obtained by observation and experimentation.
5. Use strategies that minimize miscommunication.
6. At all times and in all circumstances, follow established procedures to safeguard protected patient information communicated by non-electronic and electronic means.

2. Students must demonstrate sufficient motor and sensory function to execute movements required to carry out work assignments in all phases of diagnostic testing, including pre-analytical, analytical, and post-analytical. Specifically, a program student must be able to:

1. Distinguish physical and/or chemical attributes, including color, shape, size, and fine detail of objects both macroscopically and microscopically.
2. Demonstrate sufficient dexterity to safely manipulate specimens, laboratory utensils, tools, equipment and instrumentation including computer touch-screens, keyboards and handheld calculators, necessary to obtain and report complete and accurate diagnostic test results.
3. Demonstrate adequate mobility to attend to duties in the various locations of the medical laboratory work environment.
4. Use sensory skills to acquire and apply information presented by various means and media, including demonstrations.
5. Perform sustained, often repetitive physical activity that may require sitting, standing and/or walking for prolonged periods of time.
6. Accurately read, record, and when necessary, respond to numbers, letters and symbols displayed in print whether transmitted through non-electronic, electronic or other technological media.
7. Demonstrate proficiency performing a wide range of tests in areas of the contemporary medical laboratory including but not limited to hematology, clinical chemistry, immunohematology, and microbiology, molecular and other emerging diagnostic venues.

3. Students must project an image of professionalism through behavior, speech, and grooming. Each student is to possess requisite knowledge and skill and safely perform a wide variety of test procedures with precision and accuracy. Specifically, a program student must be able to:

1. Follow established laboratory safety protocols when working with various sample types including blood, urine, and other body fluids and tissues, and with microbial organisms that may be infectious, and hazardous chemicals.
2. Work accurately and safely under stress and time constraints to make subjective evaluations and decisions when mistakes may have a negative and/or high impact on patient care.
3. Adapt to changing environments, maintain a professional demeanor and concentration in distracting situations.
4. Demonstrate attributes that include integrity, responsibility, and tolerance.
5. Speak, act and perform all work in an ethical manner.
6. Show respect for self and others.
7. Work independently as well as cooperatively with others, performing professional obligations in a timely, responsible manner.
8. Prioritize tasks and accept responsibility for work performed independently and as a team member.
9. Assess his or her performance, willingly accept criticism, and actively seek ways to improve.

Program Learning Outcomes:

1. Competency to perform a full range of testing in the contemporary medical laboratory encompassing pre-analytical, analytical, and post-analytical components of laboratory services, including immunology, hematology, clinical chemistry, immunohematology, microbiology, molecular, hemostasis, urinalysis, body fluids, parasitology, mycology, virology, and other emerging diagnostic venues.

2. Proficiency to problem-solve, troubleshoot, and interpret results, and to use statistical approaches when evaluating data.

3. Professional and ethical conduct, respecting the feelings and needs of others, protecting the confidence of patient information, and never allowing personal concerns and biases to interfere with the welfare of patients.

4. Maintaining appropriate composure under stressful conditions.

5. Administrative skills consistent with philosophies of quality assurance, continuous quality improvement, laboratory education, fiscal resource management.

6. Application of safety and governmental regulations and standards as applied to medical laboratory practice. 7. Effective communication skills to ensure accurate and appropriate information transfer.

MLT to MLS Online Degree Completion Program

Certified Medical Laboratory Technicians (MLT) with an associate degree, currently working in the field, seeking a bachelor's degree in MLS from Oregon Tech will be able to complete the degree entirely online while continuing to work. MLT certified students have mastered much of the basic laboratory skills in their associate degree MLT program. The online program will not include the student laboratory practices performed on campus. Instead, students completing online coursework, will complete assigned competencies and/or projects at the affiliated laboratory site they are working. The following allowances are available for these students.

- Students will be allowed to be full or part-time students
- Credit for Prior Experiential Learning up to 31 upper division credits (via Credit for National Registry or Licensure Exam). Courses include

Graduation Requirements

BS MLS degree students must complete 180 quarter credits hours, maintain a minimum GPA of 2.00, and earn a grade of "C" or better in all professional program courses (MLS) as prescribed by the curriculum outline.

Medical Laboratory Science, BS

Graduation Requirements

BS MLS degree students must complete 181-183 quarter credits hours, maintain a minimum GPA of 2.00, and earn a grade of "C" or better in all professional program courses (MLS) as prescribed by the curriculum outline.

Note: The Portland-Metro campus is a laptop-required campus with resources like laptop specifications, financial aid, and helpful instructions found at http://www.oit.edu/portland-metro/college-costs/bring-your-own-device.

Curriculum

This map shows required courses for the degree and recommended terms to take each course *(the term sequence is subject to change depending on transfer courses, AP/IB/CLEP credit, and course availability).*

Programs

BMLE-BS_BMLE-MAJOR - Medical Lab Science-Earlyadm
BMLO-BS_BMLO-MAJOR - Medical Laboratory Science
BMLS-BS_BMLS-MAJOR - Medical Laboratory Science
PMLS-PMLS-MAJOR - Pre-Medical Lab Sci Gen Study

Courses

MLS100 - Introduction to MLS
MLS107 - Seminar
MLS207 - Seminar
MLS307 - Seminar
MLS407 - Seminar
MLS415 - Clinical Chemistry I
MLS416 - Clinical Chemistry II
MLS417 - Clinical Chemistry III
MLS420 - Clinic Immun & Infect Serology
MLS422 - Molecular Diagnostics
MLS424 - Hemostasis
MLS432 - Foundations of MLS I
MLS442 - Hematology I
MLS443 - Immunohematology I
MLS444 - Microbiology I
MLS445 - Microbiology II
MLS449 - Principles of Urinalysis
MLS452 - Hematology II
MLS453 - Immunohematology II
MLS457 - Research Seminar
MLS462 - Foundations of MLS II
MLS463 - Foundations of MLS III
MLS464 - Med Mycology & Parasitology
MLS470 - Chemistry & Immunology Extern
MLS471 - Hematology Externship
MLS472 - Microbiology Externship
MLS473 - Immunohematology Extern
MLS475 - MLS Capstone

Natural Sciences Department

Nate Bickford, *Department Chair*

Professors: H.-Y. Li, R. McClure, K. Usher, R. Wilde

Associate Professors: N. Bickford, K. Gandhi, J. Kellermann, J. Kinder, T. Lund, G. Pak

Assistant Professors: R. Edwards, T. Elliott, D. Grossnickle, W. Hung, D. Johnston, T. Owen, Y. Yang

Instructors: K. Farris, N. Pande

Degrees Offered

- Bachelor of Science in Biology-Health Sciences
- Bachelor of Science in Environmental Sciences
- Master of Science in Biomedical Sciences
- Master of Science in Natural Resources

Minors Offered

- Applied Physics
- Biology
- Chemistry
- Sustainability

The Department of Natural Sciences prepares students for challenging, rewarding careers in health, biological, and environmental sciences. The department also provides courses in biology, chemistry, and physics in support of degrees in nursing, medical imaging, dental hygiene, respiratory care, management and engineering programs.

Biology Programs

Many students have an interest in biology. At Oregon Tech we have designed two programs that prepare graduates for rewarding careers that require a strong foundation in biology. For outdoor or field-oriented options, please refer to the Environmental Sciences program in our department. It offers several emphases, which can readily be tailored to biological interests and student research projects. Graduates from our Environmental Sciences program often go on to careers with public and private agencies such as US Fish and Wildlife Service, US Forest Service and the Nature Conservancy. For medically-oriented options in biology, please see our Biology-Health Sciences program. It offers a strong preparation to apply to professional programs, exceeding the minimum requirements for highly competitive fields such as Medicine, Pharmacy, Dentistry, Veterinary Medicine, Physician Assistant, Physical Therapy, and others.

Biology-Health Sciences Program

Travis Lund, *Program Director*

Degree Offered

- Bachelor of Science in Biology-Health Sciences

Program Learning Outcomes

Upon graduating from the BHS program at Oregon Tech, students will be able to:

1.Demonstrate scientific knowledge and understanding.

a. Demonstrate foundational knowledge in the natural sciences (e.g., terminology, organization, classifications, appropriate use of units, methodologies, and fundamental principles).

b. Apply scientific principles to biological and medical examples/contexts.

2. Be proficient in scientific reasoning and critical thinking.

a. Analyze data to determine its relationship to principles, and evaluate the data for errors.

b. Analyze and evaluate content in biology.

3. Be able to effectively find and use resources from the literature.

4. Demonstrate effective oral, written and visual communication.

5. Demonstrate mathematical knowledge and skills in the biological sciences.

Objective and Career Opportunities

If you are interested in pre-medical, pre-dental, pre-veterinary, pre-pharmacy, pre-physical therapy, etc., then this is the major you want. The degree program provides an intensive course of study in the basic sciences, social sciences, humanities, communication, and mathematics to prepare students for entry into professional programs. The program will meet prerequisite requirements for graduate schools of medicine, dentistry, veterinary medicine, osteopathic medicine, optometry, pharmacy, podiatry, physician assistant, physical therapy and occupational therapy. These are all competitive graduate programs, and our graduates who apply to them have a strong record of acceptance. Our curriculum includes all of the core courses with labs in biology, anatomy & physiology, chemistry (general, organic, and biochemistry), and physics needed for applying to them, as well as upper-division science coursework that is tailored to medical fields, including cell biology, clinical pharmacology, medical genetics, medical microbiology, neuroscience, nutrition, parasitology, pathophysiology, virology, and immunology. We also have opportunities for undergraduate research that can engage students' interest and make them stand out as candidates for graduate programs. Courses in health management, medical

microbiology, biochemistry, and molecular & cell biology also provide strong preparation for graduate work in biotechnology, public health, and medical administration. Some students transfer into Oregon Tech's Medical Laboratory Science program, before or after earning their Biology-Health Sciences degree. This major can also prepare one for a career in education with an emphasis in biology.

Student Preparation

The Biology-Health Sciences curriculum is a demanding instructional program requiring considerable effort in science and mathematics coursework. Prospective students are advised to complete at least three years of high school mathematics and a minimum of three years of high school science (biology, chemistry, and physics).

Pre-Professional Program in Dentistry

The pre-professional program in dentistry prepares the student for entrance into dental school and provides a B.S. degree in Biology-Health Sciences. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that dental schools like to see, as well as upper-division coursework that is tailored to becoming a superior applicant. Most dental students have completed four years of college, and have a B.S. degree. Dental school typically lasts four years, although an accelerated degree may take only three years to finish. The length of a dental specialty residency depends on the specialty and the school it is affiliated with, so a specialty residency can range from two to six years.

Students are encouraged to work closely with their advisor to map out their curricular plan to prepare them for dental school application by sophomore year.

Admission to dental school is very competitive and requires strong academic achievement and extensive volunteering experience in dental settings. Students considering a career in dentistry should explore the websites of the schools they have interest in as the prerequisites for each may vary, and these can be tailored within our Biology-Health Sciences program. While our curriculum is very challenging, admission into dental school is highly competitive and requires strong academic achievement. The coursework at Oregon Tech helps students prepare for the dental admission test (DAT) offered by the American Dental Association. The test consists of a battery of four tests on the following: survey of the natural sciences, perceptual ability, reading comprehension, and quantitative reasoning.

The ADEA Associated American Dental Schools Application Service (ADEA AADSAS) is the centralized application service for U.S. dental schools. Please visit their website to find more information regarding dental school application.

For complete program requirements and a list of appropriate courses, please see the Biology-Health Sciences Program.

Pre-Professional Program in Medicine

The pre-professional program in medicine prepares the student for entrance into medical school and provides a B.S. degree in Biology-Health Sciences. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that medical schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Admission into a medical school doctoral program requires a four-year bachelor's degree with a preference for a science major over a non-science major. Once accepted, medical school then requires approximately four years of education and three to six years of internship and residency.

Students are encouraged to work closely with an advisor in our program to map out their curricular and other plans by sophomore year to prepare them for medical school application. Students are urged to volunteer in medical settings, possibly during high school and especially during college. For students currently in high school, it is advised that the student enrolls in many sciences courses before college to help them prepare for future success. Increasingly, participation in undergraduate research, which is an optional part of the Biology-Health Sciences major, is recommended to develop and demonstrate strong scientific inquiry competency for medical school.

Students considering a career in medicine should explore the websites of the schools they have interest in as the prerequisites for each may vary, and these can be tailored within our Biology-Health Sciences program. While our curriculum is very challenging, admission into medical school is highly competitive and requires strong academic achievement. The coursework at Oregon Tech helps students prepare for the medical college admission test (MCAT) required by nearly all medical schools. The test, which is divided into four sections including: physical sciences, biological sciences, social sciences and critical reasoning sections, is used to predict a student's ability to succeed academically.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Pharmacy

The pre-professional program in pharmacy prepares the student for entrance into pharmacy school and provides a B.S. degree in Biology-Health Sciences. A doctor of pharmacy degree normally takes four years to complete. Most entering pharmacy students have completed four years of undergraduate education and possess a bachelor's degree in the sciences, including specific prerequisites for the pharmacy school. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that pharmacy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Oregon Tech has a cooperative agreement with Pacific University in Oregon that can allow qualifying students to complete their B.S. in Biology-Health Sciences from us and their Pharm.D. from Pacific University in as few as six years total.

Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for pharmacy school application. Students are urged to begin volunteering in pharmacy settings, possibly during high school and especially during college. For students currently in high school, it is recommended to shadow and talk with pharmacists and to take many science courses before college to help prepare for future success.

The application process to pharmacy school is done through the Pharmacy College Application Service (PharmCAS). Students are encouraged to look at their web site while also looking at the sites of schools they have an interest in. Some pharmacy schools require the Pharmacy College Admissions Test (PCAT), but Oregon State University and the pharmacy schools in California do not. Admission to school is competitive so a strong undergraduate GPA, community service, and communication and leadership skills will help.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Physical Therapy

The pre-professional program in physical therapy prepares the student for applying for doctor of physical therapy (DPT) program and provides a B.S. degree in Biology-Health Sciences. The curriculum at The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that physical therapy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. Most DPT programs require applicants to earn a B.S. degree prior to admission. The length of professional DPT programs is typically three years. Oregon Tech is tentatively launching its DPT program in summer 2023. Students graduated from The Biology-Health Sciences will have advantage in admission to the program.

Each institution may require different courses and students are encouraged to work with their academic advisor to plan course schedule. Most DPT programs require applicants to meet minimum GPA and complete the Graduate Record Examination (GRE).Many programs require applicants to have volunteer or paid experiences working with patients under the supervision of a licensed physical therapist.This experience may be an important factor in the admissions process.

Most, but not all professional DPT programs, participate in the Physical Therapist Centralized Application Service (PTCAS). Applicants who wish to apply to a nonparticipating PTCAS program must apply directly to the institution using the DPT program's local application.

For complete program requirements and a list of appropriate courses, please see the Biology-Health Sciences Program.

Pre-Professional Program for Physician Assistant Studies

The pre-professional program for Physician Assistants (PA) prepares the student for entrance into that Master's program and provides a B.S. degree in Biology-Health Sciences. A Master's degree in PA Studies normally takes 2.5 years to complete. Most entering PA students have completed four years of undergraduate education and possess a bachelor's degree in the sciences, including specific prerequisites for the PA school. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that PA schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant. In addition to strong academics, applying to P.A. programs requires a substantial amount of patient care experience, often over 1000 hours. Our pre-professional students often work nearby in healthcare settings during their undergraduate education. Some students choose to get a degree in an allied health major such as medical imaging or respiratory care, along with an additional year or more of science pre-requisites for applying to PA school, and our advisors help advise those students as well.

Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for PA school application. Students are urged to begin volunteering in patient care settings, possibly during high school and especially during college. For students currently in high school, it is recommend to shadow and talk with PA's and other medical providers and to take many science courses before college to help prepare for future success.

For complete program requirements and a list of appropriate courses please see the Biology-Health Sciences Program.

Pre-Professional Program in Veterinary Medicine

The pre-professional program in veterinary medicine prepares students for entrance into veterinary school. A doctor of veterinary medicine program typically lasts four years and features in-depth training in animal sciences. Most veterinary colleges accept applicants have a B.S. degree at a four-year university. The Biology-Health Sciences curriculum at Oregon Tech provides a pathway to complete all the prerequisites that pharmacy schools like to see as well as upper-division science coursework that is tailored to becoming a superior applicant.

The prerequisites for each veterinary school vary slightly. Students are encouraged to work closely with their advisor in our program to map out their curricular and other plans by sophomore year to prepare them for veterinary school application. Admission to veterinary school is competitive and requires a good undergraduate GPA in addition to shadowing or working with a veterinarian, volunteering in an animal shelter, or working at a zoo or rehabilitation facility while completing their undergraduate courses. Experience in 4-H, FFA or a similar group is also great for the application. Graduate Record Examination (GRE) is required by most veterinary schools, and some also require the Biology GRE. The Medical College Admission Test (MCAT) is also accepted by some schools in place of the GRE.

Association of American Veterinary Medical Colleges (VMCAS) is the centralized application service for Colleges of Veterinary Medicine. Please visit their website to find more information regarding veterinary school application. Being a resident of a state that has a veterinary school is also a major advantage to being accepted since most schools take few out-of-state applicants. The WICHE program in the western United States allows out-of-state students to attend veterinary school at Colorado State University at Fort Collins, Oregon State University, Washington State University or the Midwestern University at Glendale, AZ veterinary schools for in-state tuition.

For complete program requirements and a list of appropriate courses please see the Biology – Health Sciences Program.

Master of Science in Biomedical Sciences

The graduate program leading to the degree of Master of Science in Biomedical Sciences prepares students to apply basic scientific principles to the practical scientific problems encountered in health industry, professional school, business, industry, government, and education. Graduates from the program will be able to apply the techniques of scientific research to real-world health problems. Course work may include several important areas relevant to biology and chemistry, including biomedicine, statistics, molecular, and cellular biology.

Thesis Option

For students interested in biological research, private sector jobs, and professional schools where research experience is valued. The thesis option requires successful completion of the on-campus core course, thesis research, and an approved thesis, as well as elective coursework. Thesis option students are required to defend their research results before a thesis defense committee.

3+2 graduate

A unique feature of the program is its 3+2 plan for undergraduate Biology-Health Sciences students. The 3+2 plan allows a student to simultaneously receive a BS and an MS degree in five years. With this plan, students are moved quickly toward expanding their academic and scientific horizons based on the student's abilities and personal motivation. Students in the 3+2 plan are expected to successfully complete the requirements for both the BS and MS degrees by the end of their fifth year in college.

Specific Admission Requirements for 3+2

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. They must apply and be admitted into the MS program by the Spring semester of their junior year (preferred) or by the start of the Fall semester of the senior year, and must meet the course requirements listed below. Students applying to the 3+2 plan must have a minimum 3.0 overall GPA and a minimum 3.25 GPA in their science coursework.

The application file for admission to the 3+2 plan must include:

1. A completed MS application form;
2. An Oregon Tech transcript;
3. Two letters of recommendation from faculty;
4. A statement of research interests; and
5. Satisfactory scores in 300 and 400 level classes

Non-Thesis Option

Available for a broad range of career professionals including science teachers requiring graduate coursework and individuals with positions in which an MS in Biomedical Sciences will qualify them for promotion. The Biomedical Sciences MS non-thesis option requires completion of the core, capstone, and elective coursework. The program of study for each student must be approved by a graduate committee and the Program Director.

Expected Student Learning Outcomes

Upon completion of the MS, students will have achieved the following goals:

Mastery of the Scientific Method

Independent development and mastery of problem-solving skills including experimental design, execution, critical analysis, and interpretation of the results of original scientific experimentation (thesis) or experiential learning (internship).

Dissemination of Scientific Products

Persuasive communication and defense of significant results of original scientific investigation presented in both written and oral format at a graduate peer-professional level.

Utilization of the Literature

Critical evaluation of an independently accessed comprehensive body of scientific literature which is project relevant and foundational in supporting and explaining research findings in both written and oral format.

Development of a Relevant Knowledge Base

Development of intrinsically held fundamental field-specific knowledge which will be applied to explain and defend research findings at a level of mastery expected by peer-professionals.

Professionalism & Self Responsibility

Maintain a consistent professional work ethic of independently taking the initiative and motivation to produce tangible products of a quality commensurate with peer-standards in graduate or professional schools or in the career field being pursued.

Outcomes Assessment Activities

The faculty will use a variety of methods for evaluating student learning outcomes. Students completing this degree program will give a public research seminar that will be evaluated by cognizant faculty members. A research thesis project will be designed, conducted, and publicly presented in writing and orally prior to defense and evaluation by the student's Graduate Advisory Committee.

Environmental Sciences Program

Degree Offered

- Bachelor of Science in Environmental Sciences

Dual Major Options

- Bachelor of Science in Civil Engineering and Environmental Sciences

- Bachelor of Science in Renewable Energy Engineering and Environmental Sciences

The Bachelor of Science degree in Environmental Sciences focuses on interdisciplinary scientific study of ecology, natural resources, wildlife, data analysis, and sustainability with emphases on management, research, and communication. Active learning is central to our program which is why many ES classes have labs or field components.

The program offers numerous and diverse opportunities for students to engage in applied research, resource management projects, and community education events with the support of faculty and professionals through local and regional partnerships.

The core curriculum for all BES tracks consists of three major options:

- **Introduction to Science:** Biology, Ecology, Chemistry, Intro Environmental Science, Physical geography, Physics
- **Data analysis:** Statistics, Geographic Information Systems, R – modeling
- **General Education:** Math, Writing, Speech, Humanities, Social Sciences

Environmental sciences encompass a broad range of opportunities for students after graduation which is why in their second year, students select a specific track to focus their education for their career aspirations. The BES program currently offers five options: Wildlife, Fisheries and Natural Resources; Water and Wetland Resources; Recreation and Science Ambassador; Environmental Business and Economics; Environmental Policy and Governance. See descriptions below.

Wildlife, Fisheries, and Natural Resources

Students gather, analyze, and interpret data on wildlife and their habitats to promote organismic success and sustainable natural resources. They evaluate ecosystems to determine environmental impacts from proposed actions while applying standards established through various environmental laws. Examples of track specific courses include Wildlife, Mammalogy, Fisheries, Ornithology, Policy and Management, Conservation Biology, and Ecological Restoration and Monitoring.

Potential careers associated with this option: wildlife tech, wildlife biologist, fisheries biologist, wildlife management, forestry tech, rangeland management.

Water and Wetland Resources

Prepares individuals to apply the principles of aquatic ecology, hydrology, and natural resources management to the development, conservation, and management of freshwater environments. Within this track students will use surveying, remote sensing, geographic information systems, and analytical chemistry techniques to collect data on lentic and lotic systems. Examples of track specific courses include Aquatic Ecology, Watershed Science and Technology, Water Resources, and Treatment Wetlands.

Potential careers associated with this option: hydrologic tech, environmental scientist, wetland scientist, environmental lab technician, water conservation specialist.

Recreation and Science Ambassador

This track prepares students for environmental education and recreation leadership careers. Students educate diverse audiences on environmental and recreation topics and empower their audience to get involved. Within this track students will design and implement standards aligned curriculum for environmental education programs. Examples of track specific courses include Environmental Education, Risk Assessment and Wilderness First Aid, Coaching in Application, and Wilderness Navigation.

Potential careers associated with this option: Interpretive Park Ranger, Environmental Educator, Recreation Ambassador, Park or Resource Specialist, Outreach Specialist.

Environmental Business and Economics

In business there is increasing demand to consider the environmental impact of corporate actions for compliance and conservation purposes. In this track students will develop the analytical skills to assess, allocate, and sustainably manage natural resources. Examples of track specific courses include Environmental Ethics, Principals of Business Management, Globalization, and Marketing.

Potential careers associated with this option: Sustainability Management, Environmental Reporting Specialist, Corporate Environmental Professional, Environmental Consultant, Natural Resource Manager.

Environmental Policy and Governance

The emphasis in this track is to examine the social dimensions of environmental issues. Students will gain the tools needed to inform environmental policy decisions. They will interpret current environmental laws and policies and advocate sustainable practices. Examples of track specific courses include Environmental Economics, Medical Sociology, Community Program Planning, and Leadership.

Potential careers associated with this option: Environmental Planning/Policy, Environmental Policy Analyst, Environmental Program Specialist, Compliance Analyst.

Environmental Chemistry

This emphasis is structured to provide a strong foundation for working in government, industrial or university labs studying the behavior of chemicals in the environment while emphasizing analytical skills. Provides students with tools to: (1) understand the processes governing chemical transformation in soil, water and air; (2) analyze for the key chemicals in the environment; and, (3) make meaningful predictions about the fates of these chemicals. This emphasis draws on subjects outside of a classical chemistry degree to include courses in atmospheric science, soil microbiology, environmental toxicology and mineralogy.

Graduates will be able to successfully pursue their career objectives in advanced education in graduate programs in areas such as atmospheric chemistry, geochemistry, toxicology and environmental chemistry and in a range of scientific careers including regulatory agencies, environmental consulting firms and industries concerned with the environmental impact and fate of their products.

Program Learning Outcomes

Upon completion of the program, students will have demonstrated the following abilities:

1. Attain applicable foundational knowledge, technical skills, and information literacy in several core areas of ecology, natural resources, & environmental sciences.
1. Actively collaborate with local and regional agencies, organizations, and community members that represent a diversity of perspectives.
1. Make and advocate for science-based and sustainable solutions to local and global environmental issues.
1. Apply, interpret, and communicate appropriate analytical and statistical techniques to answer data driven scientific questions.
1. Demonstrate geospatial literacy through the utilization of appropriate technology to identify and address environmental problems.

Student Preparation

We believe there is a place in our program for everyone with an interest in natural resources, environmental issues, business management, conservation and sustainability, environmental education, or just being in the great outdoors! Environmental sciences is a huge field that can accommodate a wide range of individual interests and skill whether it's working with wild animals, plants, people, or computers and technology. We encourage students to explore the diversity of job opportunities with federal, state, and tribal agencies, non-governmental organizations (NGOs), and private industries to help guide your studies.

Career Opportunities

Our faculty and partners are here to help you build an impressive resume of academic and work experience that will place you in the job or graduate program of your choice. Graduates can expect to find employment in federal, state, and tribal government agencies, non-governmental organizations (NGOs), and education and research institutions. Students are also well prepared to enter graduate school. Students graduating from our program have taken positions with the U.S. Geological Survey, U.S. Bureau of Reclamation, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service, Oregon Department of Forestry, Oregon State Police Wildlife Enforcement, Klamath County Health Department, Klamath Irrigation District, Klamath County Soil and Water Conservation District, the Nature Conservancy, and JELD-WEN Windows and Doors.

Degree Requirements

Students must meet the general education requirements, as stated elsewhere in this catalog, and complete the courses listed in the curriculum to obtain a Bachelor of Science in Environmental Sciences. Students are encouraged to develop a option area based on their own interests.

Students are required to pass each science course with a grade of "C" or better. This requirement is based on the quantitative skills needed in later courses as well as the degree of integration in subject material that is present throughout the program.

Masters Natural Resources

The graduate program leading to the degree of Master of Science in Natural Resources prepares students to apply basic scientific principles to the practical scientific problems encountered in business, industry, government, and education. Graduates from the program will be able to apply the techniques of scientific research to real-world environmental problems. Course work may include several important areas relevant to biology, including conservation, statistics, environmental, molecular, and cellular biology.

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. With this plan, students are moved quickly toward expanding their academic and scientific horizons based on the student's abilities and personal motivation. Students in the 3+2 plan are expected to successfully complete the requirements for both the BS and MS degrees by the end of their fifth year in college.

Specific Admission Requirements for 3+2

Students are simultaneously awarded both the BS and MS degrees in five years, thus shortening the normal time to receive both degrees from six years to five years. They must apply and be admitted into the MS program by the Spring semester of their junior year (preferred) or by the start of the Fall semester of the senior year and meet the course requirements listed below. Students applying to the 3+2 plan must have a minimum 3.0 GPA in their science coursework.

The application file for admission to the 3+2 plan must include:

1. A completed MS application form;
2. An Oregon Tech transcript;
3. Two letters of recommendation from faculty;
4. A statement of research interests; and
5. Satisfactory scores in 300 and 400 level classes

For students interested in environmental research, agency jobs, and professional schools where research experience is valued.The thesis option requires successful completion of the on-campus core, thesis research and an approved thesis, as well as elective coursework.

Expected Student Learning Outcomes

Upon completion of the MS, students will have achieved the following goals:

Mastery of the Scientific Method

Independent development and mastery of problem solving skills including experimental design, execution, critical analysis, and interpretation of the results of original scientific experimentation (thesis) or experiential learning (internship).

Dissemination of Scientific Products

Persuasive communication and defense of significant results of original scientific investigation presented in both written and oral format at a graduate peer-professional level.

Utilization of the Literature

Critical evaluation of an independently accessed comprehensive body of scientific literature which is project relevant and foundational in supporting and explaining research findings in both written and oral format.

Development of a Relevant Knowledge Base

Development of intrinsically held fundamental field-specific knowledge which will be applied to explain and defend research findings at a level of mastery expected by peer-professionals.

Professionalism & Self Responsibility

Maintain a consistent professional work ethic of independently taking the initiative and motivation to produce tangible products of a quality commensurate with peer-standards in graduate or professional schools or in the career field being pursued.

Outcomes Assessment Activities

The faculty will use a variety of methods for evaluating student learning outcomes. Students completing this degree program will give a public research seminar that will be evaluated by cognizant faculty members. A research thesis project will be designed, conducted, and publicly presented in writing and orally prior to defense and evaluation by the student's Graduate Advisory Committee.

Applied Physics Minor

Students wishing to pursue the minor in Applied Physics should consult with physics faculty in the Natural Sciences Department for advising.

The Minor in Applied Physics is available to any student and is especially recommended for individuals interested in pursuing careers or graduate studies in physical or applied sciences and engineering. The Minor in Applied Physics requires completion of 32 credits of coursework as outlined below. A grade of "C" or better is required in all courses applied toward the minor.

Required Coursework:

- PHY 221 - General Physics w/Calculus Credit Hours: 4
- PHY 222 - General Physics w/Calculus Credit Hours: 4
- PHY 223 - General Physics w/Calculus Credit Hours: 4
- MATH 254 - Vector Calculus I Credit Hours: 4
- MATH 321 - Appl Diff Equation I Credit Hours: 4

- At least 12 credits of upper-division physics Electives (PHY prefix)

Approved Upper-Division Electives:

Up to six credits of the upper-division elective coursework may be satisfied by approved non-PHY electives that utilize the technical application of physics (see list below; other courses must be approved by the physics faculty and the chair of the Natural Sciences department on a case-by-case basis). Of the 12 upper-division elective credits, six cannot be counted toward the student's major program.

Any course 300-level or higher that has a PHY prefix.

Examples include:

- PHY 311 - Intro to Modern Physics Credit Hours: 3
- PHY 330 - Electricity & Magnetism Credit Hours: 3
- PHY 448 - Geometric Optics Credit Hours: 4
- PHY 449 - Radiometry & Optical Detect Credit Hours: 4
- PHY 450 - Physical Optics Credit Hours: 4
- PHY 451 - Lasers Credit Hours: 4
- PHY 452 - Waveguides and Fiber Optics Credit Hours: 4
- PHY 453 - Optical Metrology Credit Hours: 4
- PHY 410 - Math Meth: Fourier Optics Credit Hours: 3

Approved non-PHY Electives:

- EE 341 - Electricity/Magnetism w/Transm Credit Hours: 4
- EE 343 - Solid State Electronic Devices Credit Hours: 3
- REE 344 - Nuclear Energy Credit Hours: 3
- REE 345 - Wind Power Credit Hours: 3
- MECH 318 - Fluid Mechanics Credit Hours: 4
- MECH 323 - Heat Transfer I Credit Hours: 3
- MECH 417 - Fluid Mechanics II Credit Hours: 3
- MECH 480 - Mechanical Vibrations Credit Hours: 3
- MECH 313 - Thermodynamics II Credit Hours: 3

Note:

Not all courses are offered every year or on every campus. Additional prerequisites may be required; see catalog descriptions and recent course schedules for details.

Biology Minor

The biology minor is open to all majors except Biology-Health Sciences majors. It is especially recommended for students who want to further their knowledge in biology as it relates to their chosen field. The minor offers specialized courses in biology and will document student proficiency in specific areas of biology. A minimum of 24 credits is required to complete the minor. Any substitution for elective courses must be approved by an advisor in the Natural Sciences Department. Students are advised to pay strict attention to prerequisites when selecting courses for the biology minor.

Requirements of Minor

Required Core Courses:

- BIO 211 - Principles of Biology Credit Hours: 4
- BIO 212 - Principles of Biology Credit Hours: 4
- BIO 213 - Principles of Biology Credit Hours: 4

And a minimum of 12 credits upper-division course work from the following list:

a Courses offered in alternating years.

- BIO 313 - Botany and Plant Taxonomy Credit Hours: 4 a
- BIO 331 - Human Anatomy/Physiology I Credit Hours: 5
- BIO 332 - Human Anatomy/Physiology II Credit Hours: 5
- BIO 333 - Human Anatomy/Physiology III Credit Hours: 5
- BIO 337 - Aquatic Ecology Credit Hours: 4 a
- BIO 341 - Medical Genetics Credit Hours: 3
- BIO 443 - Cell Biology Credit Hours: 4
- BIO 345 - Medical Microbiology Credit Hours: 5
- BIO 352 - Developmental Biology Credit Hours: 4
- BIO 357 - Intro to Neuroscience Credit Hours: 3
- BIO 426 - Evolutionary Biology Credit Hours: 3
- BIO 436 - Immunology Credit Hours: 4
- BIO 495 - Research Project in Biology Credit Hours: Varies (1-4)
- BIO 455 - Senior Research Class Credit Hours: 1
- BIO 355 - Junior Research Class Credit Hours: 1

Biology-Health Sciences, Biology Research Sciences option, BS

Students will learn to apply concepts from a range of biological concepts such as biochemistry, molecular biology, genetics, and cell biology to a diverse array of questions ranging from how plants move towards light to the molecular basis of cancer. Students will also be exposed to interdisciplinary approaches to biology, such as bioinformatics, which combines genetics, and molecular biology. The broad scope of the Molecular and Cell Biology major makes it ideal for students interested in a wide variety of careers including medicine, postgraduate training in basic or translational research, biotechnology, science writing and policy, public health, and science education. Training in these areas is beneficial for careers in biological research, a number of high-tech industries, graduate school, and science professions. This challenging major requires creativity, rigor, and the ability to analyze, distill, and interpret data. A love of living systems and a level of comfort with complexity are both essential.

Programs

BBHS-BS_BBHS-MAJOR - Biology-Health Sciences
BBRS-BS_BBRS-MAJOR - Bio-Health Sci Research Option
BESB-BS_BESB-MAJOR - Env Science option-Business
BESC-BS_BESC-MAJOR - Env Science option-Chemistry
BESF-BS_BESF-MAJOR - Env Science option-Wildlife
BESP-BS_BESP-MAJOR - Env Science option-Policy
BESR-BS_BESR-MAJOR - Env Science option-Recreation
BESW-BS_BESW-MAJOR - Env Science option-Water
MBMN-MS_MBMN-MAJOR - Biomedical Sciences
MBMS-MS_MBMS-MAJOR - Biomedical Sciences, Thesis
MNAR-MS_MNAR-MAJOR - Natural Resources

Courses

ALH105 - Intro to Allied Health Proffes
BIO101 - Intro to Cell Biology
BIO102 - Diversity of Life
BIO103 - Intro to Human Anat & Phys
BIO107 - Seminar
BIO109 - Intro to Medical Sciences
BIO135 - Prep for Human A&P
BIO200 - Medical Terminology
BIO201 - Organismic Biology
BIO205 - Nutrition
BIO207 - Seminar
BIO209 - Current Research Tpc Med Sci I
BIO211 - Principles of Biology
BIO212 - Principles of Biology
BIO213 - Principles of Biology
BIO216 - Biology of Companion Animals
BIO221Z - Principles of Biology: Cells
BIO222Z - Principles of Bio: Organisms
BIO223Z - Principles of Bio: Ecology
BIO225 - Riparian Assessment Methods
BIO226 - Intro to Wildlife Rehab
BIO227 - Intro to Forensic Science
BIO231 - Human Anatomy/Physiology I
BIO232 - Human Anatomy/Physiology II
BIO233 - Human Anatomy/Physiology III
BIO234 - Microbiology
BIO235 - Human Genetics
BIO247 - Forensic Anthropology
BIO255 - Sophomore Research Class
BIO265 - Field Methods Environ Science

BIO301 - Int Sutdy Exp Ecology/Sustn I
BIO302 - Inntl Study Exp Ecolo & Sustn
BIO307 - Seminar
BIO313 - Botany & Plant Taxonomy
BIO326 - Parasitology
BIO331 - Human Anatomy/Physiology I
BIO332 - Human Anatomy/Physiology II
BIO333 - Human Anatomy/Physiology III
BIO336 - Essentials of Pathophysiology
BIO337 - Aquatic Ecology
BIO341 - Medical Genetics
BIO342 - Cell Biology
BIO345 - Medical Microbiology
BIO346 - Pathophysiology I
BIO347 - Pathophysiology II
BIO352 - Developmental Biology
BIO355 - Junior Research Class
BIO357 - Intro to Neuroscience
BIO366 - Zoology
BIO369 - Mammalogy
BIO377 - Wildlife Ecology & Management
BIO386 - Ornithology
BIO407 - Seminar
BIO409 - Crnt Rsch Tpcs in Med Sci II
BIO417 - Plant Ecology
BIO426 - Evolutionary Biology
BIO427 - Special Topics in Neuroscience
BIO428 - Fisheries
BIO434 - Data Analysis Methods
BIO435 - Exercise Physiology
BIO436 - Immunology
BIO438 - Conservation Biology
BIO441 - Genetic Engr & Gene Therapy
BIO442 - Biological Physics
BIO443 - Cell Biology
BIO445 - Comparative Virology
BIO446 - Pathophysiology I
BIO447 - Pathophysiology II
BIO452 - Development Biology
BIO454 - Environmental Health
BIO455 - Senior Research Class
BIO457 - Intro to Neuroscience
BIO461 - Human Cadaver Dissection
BIO462 - Human Cadaver Dissection
BIO467 - BioMedical Devices
BIO495 - Research Project in Biology
BIO501 - Intro to Graduate Studies
BIO507 - Seminar
BIO509 - Introduction to Biomedical Sci
BIO510 - Current Iss in Biomedical Sci
BIO511 - Foundations in Conservation
BIO512 - Current Iss in Natural Resourc
BIO517 - Plant Ecology
BIO522 - Introduction to Neuroscience
BIO526 - Evolutionary Biology
BIO527 - Special Topics in Neuroscience
BIO535 - Exercise Physiology
BIO536 - Immunology
BIO537 - Advanced Data Analysis II
BIO538 - Conservation Biology
BIO541 - Genetic Enginring&Gene Therapy
BIO542 - Biological Physics
BIO543 - Cell Biology
BIO545 - Comparative Virology
BIO546 - Pathophysiology I
BIO547 - Pathophysiology II
BIO551 - Zoology
BIO552 - Developmental Biology
BIO554 - Environmental Health
BIO557 - Introduction to Neuroscience
BIO561 - Human Cadaver Dissection
BIO562 - Human Cadaver Dissection
BIO567 - Biomedical Devices
BIO585 - Ecoregional Studies
BIO595 - Graduate Research/Thesis
BIO596 - Biomedical Capstone
BIO597 - Internship/Shadowing
CHE101 - Intro to General Chemistry
CHE102 - Intro to Organic Chemistry
CHE103 - Intro to Biochemistry
CHE104 - Intro to General Chemistry Lab
CHE105 - Intro to Organic Chemistry Lab
CHE106 - Elementary Chemistry Lab
CHE107 - Seminar
CHE201 - General Chemistry I
CHE202 - General Chemistry II
CHE203 - General Chemistry III
CHE204 - General Chemistry I Lab
CHE205 - General Chemistry II Lab
CHE206 - General Chemistry III Lab
CHE207 - Seminar
CHE210 - Clinical Pharmacology
CHE221 - General Chemistry I
CHE221Z - General Chemistry I
CHE222 - General Chemistry II
CHE222Z - General Chemistry II
CHE223 - General Chemistry III
CHE223Z - General Chemistry III
CHE227Z - General Chemistry I Lab
CHE228Z - General Chemistry II Lab
CHE229Z - General Chemistry III Lab
CHE255 - Sophomore Research Class
CHE260 - Electrochemistry for RE Applic
CHE305 - Nanoscience & Nanotech
CHE307 - Seminar
CHE315 - Environmental Analytical Chem.
CHE325 - Soil Science
CHE331 - Organic Chemistry I
CHE332 - Organic Chemistry II
CHE333 - Organic Chemistry III
CHE335 - Bioorganic Chemistry
CHE341 - Instr Methods/Data Acqustn I
CHE342 - Instr Methods/Data Acqustn II
CHE345 - Corrosion Chemistry
CHE346 - Corrosion Chemistry Lab
CHE355 - Junior Research Class

CHE360 - Clinical Pharmacology/Hlth Prf
CHE407 - Seminar
CHE450 - Biochemistry I
CHE451 - Biochemistry II
CHE452 - Biochemistry III
CHE455 - Senior Research Class
CHE465 - Fate/Transport of Pollutants
CHE495 - Research Project in Chemistry
CHE522 - Biochemistry III
CHE550 - Biochemistry I
CHE551 - Biochemistry II
CHE552 - Biochemistry III
CHE565 - Fate & Transport of Pollutants
ENV107 - Seminar
ENV108 - Mentorship & Team Building
ENV111 - Intro to Env Sciences
ENV207 - Seminar
ENV214 - Watershed Sci & Tech
ENV217 - Intro to Natural Resource Mgmt
ENV224 - Scientific Reason & Method
ENV226 - Environmental Data Analysis
ENV265 - Field Methods Environ Science
ENV275 - Careers in Env. Sciences
ENV307 - Seminar
ENV314 - Environmental Policy & Law
ENV321 - Water Resources
ENV336 - Environmental Hydrology
ENV355 - Careers and Prof. in Env. Sci.
ENV365 - Adv Field Methods in Env Sci
ENV375 - Forest Ecology & Management
ENV407 - Seminar
ENV420 - Extern Environmental Science
ENV422 - Green Chemistry
ENV425 - Fire Ecology
ENV433 - Environmental Education
ENV434 - Advanced Data Analysis
ENV435 - Atmospheric Physics
ENV460 - Risk Mgmt & Wildrnss First Aid
ENV465 - Ecological Resto. & Monitoring
ENV466 - Environmental Education
ENV469 - Treatment Wetlands
ENV475 - Profnl. & Job Readiness
ENV477 - Entomology
ENV479 - Ichthyology
ENV484 - Sustainable Human Ecology
ENV485 - Habitat Management
ENV489 - Aquatic Inorganic Chemistry
ENV495 - Research in Env. Sciences
ENV507 - Seminar
ENV512 - Human Dimension
ENV522 - Green Chemistry
ENV525 - Fire Ecology
ENV534 - Advanced Data Analysis
ENV542 - Invertebrate Ecology
ENV544 - Pollinator Ecology Plants/Bees
ENV560 - Risk Mgmt/Wilderness First Aid
ENV565 - Ecological Resto. & Monitoring
ENV566 - Environmental Education
ENV569 - Treatment Wetlands
ENV575 - Forest Ecology & Management
ENV577 - Entomology
ENV579 - Ichthyology
ENV584 - Sustainable Human Ecology
ENV585 - Habitat Management
ENV589 - Aquatic Inorganic Chemistry
GEOG105 - Physical Geography
GEOG335 - Soils
GEOL107 - Seminar
GEOL201 - Physical Geology
GEOL207 - Seminar
GEOL307 - Seminar
GEOL407 - Seminar
OSLS207 - Overseas Lab Science
OSMS107 - Seminar
OSMS207 - Seminar
OSMS307 - Seminar
OSMS407 - Seminar
PHY107 - Seminar
PHY201 - General Physics
PHY202 - General Physics
PHY203 - General Physics
PHY207 - Seminar
PHY215 - Topics in Astronomy
PHY217 - Physics of Med Imaging
PHY221 - General Physics w/Calculus
PHY222 - General Physics w/Calculus
PHY223 - General Physics w/Calculus
PHY255 - Sophomore Research
PHY305 - Nanoscience & Nanotech
PHY307 - Seminar
PHY311 - Intro to Modern Physics
PHY312 - Intro to Modern Physics
PHY313 - Intro to Modern Physics
PHY330 - Electricity & Magnetism
PHY355 - Junior Research
PHY407 - Seminar
PHY410 - Math Meth:Fourier Optics
PHY448 - Geometric Optics
PHY450 - Physical Optics
PHY451 - Lasers
PHY452 - Waveguides and Fiber Optics
PHY453 - Optical Metrology
PHY455 - Senior Research
PHY548 - Geometric Optics
PHY550 - Physical Optics
PHY551 - Lasers
PHY552 - Waveguides & Fiber Optics
PHY553 - Optical Metrology

OHSU Nursing Department

Susan Bakewell-Sachs, *School of Nursing Dean and Vice President for Nursing Affairs for OHSU*

Tamara Rose, *Campus Associate Dean*

Instructors: S. Bailey, S. Brandsness, L. Callahan, L. Gimple, M. Gran-Moravec, A. Kohler-Edwards, A. Lowe, C. Usher

This program is offered at Oregon Institute of Technology by the Oregon Health & Science University School of Nursing, in cooperation with Oregon Tech.

Degree Offered

- Bachelor of Science with a major in Nursing

The OHSU School of Nursing is a health professions leader in academic productivity and innovative educational programming. It is recognized as a model in educating students for careers in nursing at both the graduate and undergraduate levels. In July 1993, the Nursing Program at Oregon Tech became a member of the Statewide Integrated Nursing Education System for Oregon. Campuses are located in: Ashland, at Southern Oregon University; Klamath Falls, at Oregon Institute of Technology; La Grande, at Eastern Oregon University; Monmouth, at Western Oregon University; and Portland, at Oregon Health & Science University. In addition to a basic baccalaureate degree in nursing, the statewide program offers opportunities for RNs seeking B.S. degrees.

Non-nursing coursework may be taken at Oregon Institute of Technology, a community college, or other accredited institutions of higher learning. Pre-nursing majors must apply and be accepted by the OHSU School of Nursing in order to progress into the nursing major. OHSU uses a holistic admissions process which includes academic performance, application essays, and interviews if invited.

The OHSU Baccalaureate in Nursing program provides the essential foundation for professional nursing licensure and practice. Oregon Tech, Pre-nursing students, complete one or two years of required prerequisites and non-nursing degree requirements (depending on transferability of previous college coursework successfully completed). Once admitted to the OHSU undergraduate nursing program on the OIT campus, students complete three years of professional nursing courses. Selection into the professional program is competitive.

Nursing courses build upon and complement the liberal arts and science foundation required for professional practice. The graduate of the B.S. program is eligible to complete the registered nursing licensure examination and is prepared to assume responsibility for providing professional nursing care.

Options for Registered Nurses to Obtain a B.S.

There is a process in place for assisting RNs to complete coursework to obtain a B.S. This is an online degree and is not offered on the Oregon Tech campus. Please contact the School of Nursing for information at (866) 223-1811.

Approval and Accreditation

OHSU School of Nursing is accredited by the Northwest Commission on Colleges and Universities (NWCCU) and the Commission on Collegiate Nursing Education (CCNE).

Admission

To be considered for admission to the School of Nursing, a student must submit an online application and official transcripts (www.ohsu.edu/son). The annual application process begins by October 1 and closes February 15. The minimum criteria to apply are:

- have 28 credits of prerequisite courses completed by the end of fall term
- have completed Human Anatomy and Physiology I
- be at the Intermediate Algebra math level
- have a minimum 3.0 GPA for your prerequisite courses

Transfer Credits

Transfer credits are accepted subject to review by OHSU Registrar's office for comparability and number of credits which may be granted.

Programs

NURS-BS_NURS-MAJOR - OHSU Nursing
PN-ND_HAS-MAJOR - Pre-Nursing Gen Study
PN-PN-MAJOR - Pre-Nursing Gen Study

Courses

NRS207 - Seminar
NRS307 - Seminar
NRS407 - Seminar

All Programs

5CE-BMS_5CE_GR-MAJOR - Civil Engineering

Overview

Program Long Title
Civil Engineering

Program Title
Civil Engineering

Program Code
5CE-BMS_5CE_GR-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140801

5CE-BMS_5CE_UG-MAJOR - Civil Engineering

Overview

Program Long Title
Civil Engineering

Program Title
Civil Engineering

Program Code
5CE-BMS_5CE_UG-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
140801

Requirements

Simple Requisites

Subplan

No Requirement Level

Untitled Requirement
Type
Completion Requirement

Additional Comments:

Degree Maps

Degree Map Name
Untitled Degree Map

Total Degree Map Credits
38 - 44

Degree Map Effective Catalog Year
Fall 1314 -

Year	Semester	Actual Credits	Progress Credits
Year 1	Fall	13 - 15	0

Requirement Select
- CE101 - Intro to Civil Engineering I

Course Requirement Group

Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	0 - 2
Progress Credits	-
Contact Hours	0 - 4
Clinical	-
Criticality	No

Requirement Select
- CHE221Z - General Chemistry I

Course Requirement Group

Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Requirement Select
- CHE227Z - General Chemistry I Lab

Course Requirement Group

Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	1
Progress Credits	-
Contact Hours	3
Clinical	-
Criticality	No

Requirement Select

- COM111Z - Public Speaking

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Requirement Select

- WRI121Z - Composition I

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Year	Semester	Actual Credits	Progress Credits
Year 1	Fall	12 - 14	0

Requirement Select

- CE102 - Intro to Civil Engineering II

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	0 - 2
Progress Credits	-
Contact Hours	0 - 4
Clinical	-
Criticality	No

Requirement Select

- CHE222Z - General Chemistry II

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Requirement Select

- CHE228Z - General Chemistry II Lab

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	1
Progress Credits	-
Contact Hours	3
Clinical	-
Criticality	No

Requirement Select

- WRI122Z - Composition II

  OR
- WRI227Z - Technical Writing

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Requirement Select

- Humanities (Literature) Elective Credit (Generic)

Course Requirement Group	
Course Requirement Group (Free Text)	Humanities (Literature) Elective Credit
Minimum Grade	-
Area	-
Actual Credits	3
Progress Credits	-
Contact Hours	-
Clinical	-
Criticality	Yes

Year	Semester	Actual Credits	Progress Credits
Year 1	Spring	13 - 15	0

Requirement Select

- CE203 - Engineering Graphics

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	0 - 2
Progress Credits	-
Contact Hours	0 - 4
Clinical	-
Criticality	No

Requirement Select

- BIO/ENV/GEOL Elective Credit Hours: 3 (Generic)

Course Requirement Group	
Course Requirement Group (Free Text)	BIO/ENV/GEOL Elective Credit Hours
Minimum Grade	-
Area	-
Actual Credits	3
Progress Credits	-
Contact Hours	-
Clinical	-
Criticality	Yes

Requirement Select

- MATH251Z - Differential Calculus

Course Requirement Group	
Course Requirement Group (Free Text)	-
Minimum Grade	-
Area	-
Actual Credits	4
Progress Credits	-
Contact Hours	4
Clinical	-
Criticality	No

Requirement Select

- Humanities Elective Credit Hours: 3 (Generic)

Course Requirement Group	
Course Requirement Group (Free Text)	Humanities Elective Credit Hours: 3
Minimum Grade	-
Area	-
Actual Credits	3
Progress Credits	-
Contact Hours	-
Clinical	-
Criticality	Yes

Requirement Select

- Social Science Elective Credit Hours: 3 (Generic)

Course Requirement Group	
Course Requirement Group (Free Text)	Social Science Elective Credit Hours: 3
Minimum Grade	-
Area	-
Actual Credits	3
Progress Credits	-
Contact Hours	-
Clinical	-
Criticality	Yes

Year	Semester	Actual Credits	Progress Credits
-	-	0	0
-	-	0	0
-	-	0	0
-	-	0	0
Year	Semester	Actual Credits	Progress

-	-	0	Credits 0
Year	Semester	Actual Credits	Progress Credits
-	-	0	0

Total General Education Credits 0
Total Major Credits 0
Total Minor Credits 0
Total Elective Credits 0

APEP-AAS_APEP-MAJOR - EMT - Paramedic

Overview

Program Long Title
EMT - Paramedic

Program Title
EMT - Paramedic

Program Code
APEP-AAS_APEP-MAJOR

Department(s)
Emergency Medical Services

College/School
College of HAS

Degree Designation
AAS

Program Level
UG

CIP Code
510904

APEP-ND_HAS-MAJOR - EMT - Paramedic

Overview

Program Long Title
EMT - Paramedic

Program Title
EMT - Paramedic

Program Code
APEP-ND_HAS-MAJOR

Department(s)
AH

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510904

ASCS-AAS_ASCS-MAJOR - Sleep Health-Clinical Sleep Op

Overview

Program Long Title
Sleep Health-Clinical Sleep Op

Program Title
Sleep Health-Clinical Sleep Op

Program Code
ASCS-AAS_ASCS-MAJOR

Department(s)
RCP

College/School
College of HAS

Degree Designation
AAS

Program Level
UG

CIP Code
512706

ASPT-AAS_ASPT-MAJOR - Sleep Health-Polysom Tech Opt

Overview

Program Long Title
Sleep Health-Polysom Tech Opt

Program Title
Sleep Health-Polysom Tech Opt

Program Code
ASPT-AAS_ASPT-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
AAS

Program Level
UG

CIP Code
510917

BACC-BS_BACC-MAJOR - Business Accounting Option

Overview

Program Long Title
Business Accounting Option

Program Title
Business Accounting Option

Program Code
BACC-BS_BACC-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520301

BACC-ND_ETM-MAJOR - Business Accounting Option

Overview

Program Long Title
Business Accounting Option

Program Title
Business Accounting Option

Program Code
BACC-ND_ETM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
520301

BACT-BS_BACT-MAJOR - Accounting

Overview

Program Long Title
Accounting

Program Title
Accounting

Program Code
BACT-BS_BACT-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520301

BBHS-BS_BBHS-MAJOR - Biology-Health Sciences

Overview

Program Long Title
Biology-Health Sciences

Program Title
Biology-Health Sciences

Program Code
BBHS-BS_BBHS-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
260101

BBRS-BS_BBRS-MAJOR - Bio-Health Sci Research Option

Overview

Program Long Title
Bio-Health Sci Research Option

Program Title
Bio-Health Sci Research Option

Program Code
BBRS-BS_BBRS-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
260101

BCE-BS_BCE-MAJOR - Civil Engineering

Overview

Program Long Title
Civil Engineering

Program Title
Civil Engineering

Program Code
BCE-BS_BCE-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
140801

BCE-ND_ETM-MAJOR - Civil Engineering

Overview

Program Long Title
Civil Engineering

Program Title
Civil Engineering

Program Code
BCE-ND_ETM-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
140801

BCM-BS_BCM-MAJOR - Construction Management

Overview

Program Long Title
Construction Management

Program Title
Construction Management

Program Code
BCM-BS_BCM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
522001

BCMP-BS_BCMP-MAJOR - Computer Engineering Tech

Overview

Program Long Title
Computer Engineering Tech

Program Title
Computer Engineering Tech

Program Code
BCMP-BS_BCMP-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151201

BCMP-BS_BCMPSOF-MAJOR - Computer Engineering Tech

Overview

Program Long Title
Computer Engineering Tech

Program Title
Computer Engineering Tech

Program Code
BCMP-BS_BCMPSOF-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151201

BCMP-ND_ETM-MAJOR - Computer Engineering Tech

Overview

Program Long Title
Computer Engineering Tech

Program Title
Computer Engineering Tech

Program Code
BCMP-ND_ETM-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
151201

BCOM-BS_BCOM-MAJOR - Communication Studies

Overview

Program Long Title
Communication Studies

Program Title
Communication Studies

Program Code
BCOM-BS_BCOM-MAJOR

Department(s)
Communication

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
090100

BCOM-ND_HAS-MAJOR - Communication Studies

Overview

Program Long Title
Communication Studies

Program Title
Communication Studies

Program Code
BCOM-ND_HAS-MAJOR

Department(s)
Communication

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
090100

BCYB-BS_BCYB-MAJOR - Cybersecurity

Overview

Program Long Title
Cybersecurity

Program Title
Cybersecurity

Program Code
BCYB-BS_BCYB-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
111003

BDAS-BS_BDAS-MAJOR - Data Science

Overview

Program Long Title
Data Science

Program Title
Data Science

Program Code
BDAS-BS_BDAS-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
303001

BDCE-BS_BDCE-MAJOR - Dual Civil Eng/Env Sciences

Overview

Program Long Title
Dual Civil Eng/Env Sciences

Program Title
Dual Civil Eng/Env Sciences

Program Code
BDCE-BS_BDCE-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
140899

BDCS-BS_BDCS-MAJOR - Dual Compute/Software Eng Tech

Overview

Program Long Title
Dual Compute/Software Eng Tech

Program Title
Dual Compute/Software Eng Tech

Program Code
BDCS-BS_BDCS-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151299

BDEM-BS_BDEM-MAJOR - Dual Embedded Sys/Math

Overview

Program Long Title
Dual Embedded Sys/Math

Program Title
Dual Embedded Sys/Math

Program Code
BDEM-BS_BDEM-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151299

BDER-BS_BDER-MAJOR - Dual Elec/ Renewable Energy Eng

Overview

Program Long Title
Dual Elec/Renewable Energy Eng

Program Title
Dual Elec/Renewable Energy Eng

Program Code
BDER-BS_BDER-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141099

BDES-BS_BDES-MAJOR - Dual Embed/ Software Eng Tech

Overview

Program Long Title
Dual Embed/Software Eng Tech

Program Title
Dual Embed/Software Eng Tech

Program Code
BDES-BS_BDES-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151299

BDH-BS_BDH-MAJOR - Dental Hygiene

Overview

Program Long Title
Dental Hygiene

Program Title
Dental Hygiene

Program Code
BDH-BS_BDH-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510602

BDH-ND_HAS-MAJOR - Dental Hygiene

Overview

Program Long Title
Dental Hygiene

Program Title
Dental Hygiene

Program Code
BDH-ND_HAS-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510602

BDHC-BS_BDHC-MAJOR - Dental Hygiene

Overview

Program Long Title
Dental Hygiene

Program Title
Dental Hygiene

Program Code
BDHC-BS_BDHC-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510602

BDHO-BS_BDHO-MAJOR - Dental Hygiene

Overview

Program Long Title
Dental Hygiene

Program Title
Dental Hygiene

Program Code
BDHO-BS_BDHO-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510602

BDHO-ND_HAS-MAJOR - Dental Hygiene

Overview

Program Long Title
Dental Hygiene

Program Title
Dental Hygiene

Program Code
BDHO-ND_HAS-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510602

BDME-BS_BDME-MAJOR - Dual Mech Eng/MFG Eng Tech

Overview

Program Long Title
Dual Mech Eng/MFG Eng Tech

Program Title
Dual Mech Eng/MFG Eng Tech

Program Code
BDME-BS_BDME-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141901

BDMT-BS_BDMT-MAJOR - Dual Mech Eng Tech/MFG Eng Tec

Overview

Program Long Title
Dual Mech Eng Tech/MFG Eng Tec

Program Title
Dual Mech Eng Tech/MFG Eng Tec

Program Code
BDMT-BS_BDMT-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150805

BDRE-BS_BDRE-MAJOR - Dual Renewable Energy/Elec Eng

Overview

Program Long Title
Dual Renewable Energy/Elec Eng

Program Title
Dual Renewable Energy/Elec Eng

Program Code
BDRE-BS_BDRE-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
149999

BDRN-BS_BDRN-MAJOR - Dual Renewable Energy/Env Sci

Overview

Program Long Title
Dual Renewable Energy/Env Sci

Program Title
Dual Renewable Energy/Env Sci

Program Code
BDRN-BS_BDRN-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
149999

BDSM-BS_BDSM-MAJOR - Dual Software Eng/Applied Math

Overview

Program Long Title
Dual Software Eng/Applied Math

Program Title
Dual Software Eng/Applied Math

Program Code
BDSM-BS_BDSM-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151204

BEBR-BES-BS_BES-CONCENTRATION - Biological Resources Emphasis

Overview

Program Long Title
Biological Resources Emphasis

Program Title
Biological Resources Emphasis

Program Code
BEBR-BES-BS_BES-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BECH-BS_BECH-MAJOR - Echocardiography

Overview

Program Long Title
Echocardiography

Program Title
Echocardiography

Program Code
BECH-BS_BECH-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BECO-BS_BECO-MAJOR - Echocardiography

Overview

Program Long Title
Echocardiography

Program Title
Echocardiography

Program Code
BECO-BS_BECO-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BECO-ND_HAS-MAJOR - Echocardiography

Overview

Program Long Title
Echocardiography

Program Title
Echocardiography

Program Code
BECO-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510910

BEE-BS_BEE-MAJOR - Electrical Engineering

Overview

Program Long Title
Electrical Engineering

Program Title
Electrical Engineering

Program Code
BEE-BS_BEE-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

BEE-ND_ETM-MAJOR - Electrical Engineering

Overview

Program Long Title
Electrical Engineering

Program Title
Electrical Engineering

Program Code
BEE-ND_ETM-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
141001

BEET-BS_BEET-MAJOR - Electronics Engineering Tech

Overview

Program Long Title
Electronics Engineering Tech

Program Title
Electronics Engineering Tech

Program Code
BEET-BS_BEET-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150303

BEET-ND_ETM-MAJOR - Electronics Engineering Tech

Overview

Program Long Title
Electronics Engineering Tech

Program Title
Electronics Engineering Tech

Program Code
BEET-ND_ETM-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
150303

BEGS-BES-BS_BES-CONCENTRATION - Geographic Info Sys Emphasis

Overview

Program Long Title
Geographic Info Sys Emphasis

Program Title
Geographic Info Sys Emphasis

Program Code
BEGS-BES-BS_BES-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BEMS-BS_BEMS-MAJOR - Emergency Medical Services Mgt

Overview

Program Long Title
Emergency Medical Services Mgt

Program Title
Emergency Medical Services Mgt

Program Code
BEMS-BS_BEMS-MAJOR

Department(s)
Emergency Medical Services

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510904

BEMB-BS_BEMB-MAJOR - Embedded Systems Eng Tech

Overview

Program Long Title
Embedded Systems Eng Tech

Program Title
Embedded Systems Eng Tech

Program Code
BEMB-BS_BEMB-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151299

BESB-BS_BESB-MAJOR - Env Science option-Business

Overview

Program Long Title
Env Science option-Business

Program Title
Env Science option-Business

Program Code
BESB-BS_BESB-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BEMB-ND_ETM-MAJOR - Embedded Systems Eng Tech

Overview

Program Long Title
Embedded Systems Eng Tech

Program Title
Embedded Systems Eng Tech

Program Code
BEMB-ND_ETM-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
151299

BESC-BS_BESC-MAJOR - Env Science option-Chemistry

Overview

Program Long Title
Env Science option-Chemistry

Program Title
Env Science option-Chemistry

Program Code
BESC-BS_BESC-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BESF-BS_BESF-MAJOR - Env Science option-Wildlife

Overview

Program Long Title
Env Science option-Wildlife

Program Title
Env Science option-Wildlife

Program Code
BESF-BS_BESF-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BESP-BS_BESP-MAJOR - Env Science option-Policy

Overview

Program Long Title
Env Science option-Policy

Program Title
Env Science option-Policy

Program Code
BESP-BS_BESP-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BESR-BS_BESR-MAJOR - Env Science option-Recreation

Overview

Program Long Title
Env Science option-Recreation

Program Title
Env Science option-Recreation

Program Code
BESR-BS_BESR-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BEST-BES-BS_BES-CONCENTRATION - Sustainable Technology Emphais

Overview

Program Long Title
Sustainable Technology Emphais

Program Title
Sustainable Technology Emphais

Program Code
BEST-BES-BS_BES-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BESW-BS_BESW-MAJOR - Env Science option-Water

Overview

Program Long Title
Env Science option-Water

Program Title
Env Science option-Water

Program Code
BESW-BS_BESW-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BEWS-BES-BS_BES-CONCENTRATION - Watershed Science Emphasis

Overview

Program Long Title
Watershed Science Emphasis

Program Title
Watershed Science Emphasis

Program Code
BEWS-BES-BS_BES-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
030104

BGMG-BS_BGMG-MAJOR - Geomatics-option in GIS

Overview

Program Long Title
Geomatics-option in GIS

Program Title
Geomatics-option in GIS

Program Code
BGMG-BS_BGMG-MAJOR

Department(s)
Applied Computing & Geomatics

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151102

BGMS-BS_BGMS-MAJOR - Geomatics-option in Surveying

Overview

Program Long Title
Geomatics-option in Surveying

Program Title
Geomatics-option in Surveying

Program Code
BGMS-BS_BGMS-MAJOR

Department(s)
Applied Computing & Geomatics

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151102

BHAD-BS_BHAD-MAJOR - Health Care Mgmt-Admin Mgmt

Overview

Program Long Title
Health Care Mgmt-Admin Mgmt

Program Title
Health Care Mgmt-Admin Mgmt

Program Code
BHAD-BS_BHAD-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
510701

BHCM-BS_BHCM-MAJOR - Health Care Mgmt-Clinical Mgmt

Overview

Program Long Title
Health Care Mgmt-Clinical Mgmt

Program Title
Health Care Mgmt-Clinical Mgmt

Program Code
BHCM-BS_BHCM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
510701

BHI-BS_BHI-MAJOR - Health Informatics

Overview

Program Long Title
Health Informatics

Program Title
Health Informatics

Program Code
BHI-BS_BHI-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
510706

BHR-BS_BHR-MAJOR - Health Care Mgmt-Rad Science

Overview

Program Long Title
Health Care Mgmt-Rad Science

Program Title
Health Care Mgmt-Rad Science

Program Code
BHR-BS_BHR-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
510701

BIT-BS_BIT-MAJOR - Information Technology

Overview

Program Long Title
Information Technology

Program Title
Information Technology

Program Code
BIT-BS_BIT-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
110103

BIT-ND_ETM-MAJOR - Information Technology

Overview

Program Long Title
Information Technology

Program Title
Information Technology

Program Code
BIT-ND_ETM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
110103

BMAN-BS_BMAN-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
BMAN-BS_BMAN-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150613

BMAN-BS_BMETMAN-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
BMAN-BS_BMETMAN-MAJOR

Department(s)
MAN

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150613

BMAN-ND_ETM-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
BMAN-ND_ETM-MAJOR

Department(s)
MAN

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
150613

BME-BS_BME-MAJOR - Mechanical Engineering

Overview

Program Long Title
Mechanical Engineering

Program Title
Mechanical Engineering

Program Code
BME-BS_BME-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141901

BME-ND_ETM-MAJOR - Mechanical Engineering

Overview

Program Long Title
Mechanical Engineering

Program Title
Mechanical Engineering

Program Code
BME-ND_ETM-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
141901

BMET-ND_ETM-MAJOR - Mechanical Engineering Tech

Overview

Program Long Title
Mechanical Engineering Tech

Program Title
Mechanical Engineering Tech

Program Code
BMET-ND_ETM-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
150805

BMET-BS_BMET-MAJOR - Mechanical Engineering Tech

Overview

Program Long Title
Mechanical Engineering Tech

Program Title
Mechanical Engineering Tech

Program Code
BMET-BS_BMET-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150805

BMKT-BS_BMKT-MAJOR - Business Marketing Option

Overview

Program Long Title
Business Marketing Option

Program Title
Business Marketing Option

Program Code
BMKT-BS_BMKT-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
521401

BMET-BS_BMETMAN-MAJOR - Mechanical Engineering Tech

Overview

Program Long Title
Mechanical Engineering Tech

Program Title
Mechanical Engineering Tech

Program Code
BMET-BS_BMETMAN-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150805

BMKT-ND_ETM-MAJOR - Business Marketing Option

Overview

Program Long Title
Business Marketing Option

Program Title
Business Marketing Option

Program Code
BMKT-ND_ETM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
521401

BMLE-BS_BMLE-MAJOR - Medical Lab Science-Earlyadm

Overview

Program Long Title
Medical Lab Science-Earlyadm

Program Title
Medical Lab Science-Earlyadm

Program Code
BMLE-BS_BMLE-MAJOR

Department(s)
Medical Lab Science

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
511099

BMLO-BS_BMLO-MAJOR - Medical Laboratory Science

Overview

Program Long Title
Medical Laboratory Science

Program Title
Medical Laboratory Science

Program Code
BMLO-BS_BMLO-MAJOR

Department(s)
Medical Lab Science

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
511099

BMLS-BS_BMLS-MAJOR - Medical Laboratory Science

Overview

Program Long Title
Medical Laboratory Science

Program Title
Medical Laboratory Science

Program Code
BMLS-BS_BMLS-MAJOR

Department(s)
Medical Lab Science

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
511099

BMTC-BS_BMTC-MAJOR - Applied Math option in Com Mat

Overview

Program Long Title
Applied Math option in Com Mat

Program Title
Applied Math option in Com Mat

Program Code
BMTC-BS_BMTC-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
270304

BMTH-BS_BMTH-MAJOR - Applied Mathematics

Overview

Program Long Title
Applied Mathematics

Program Title
Applied Mathematics

Program Code
BMTH-BS_BMTH-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
270304

BMTH-ND_HAS-MAJOR - Applied Mathematics

Overview

Program Long Title
Applied Mathematics

Program Title
Applied Mathematics

Program Code
BMTH-ND_HAS-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
270304

BMTP-BS_BMTP-MAJOR - Applied Math option in Physics

Overview

Program Long Title
Applied Math option in Physics

Program Title
Applied Math option in Physics

Program Code
BMTP-BS_BMTP-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
270304

BMTS-BS_BMTS-MAJOR - Applied Math option in Stats

Overview

Program Long Title
Applied Math option in Stats

Program Title
Applied Math option in Stats

Program Code
BMTS-BS_BMTS-MAJOR

Department(s)
Applied Mathematics

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
270304

BNUC-BS_BNUC-MAJOR - Nuclear Med Molecular Imaging

Overview

Program Long Title
Nuclear Med Molecular Imaging

Program Title
Nuclear Med Molecular Imaging

Program Code
BNUC-BS_BNUC-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510905

BNUC-ND_HAS-MAJOR - Nuclear Med Molecular Imaging

Overview

Program Long Title
Nuclear Med Molecular Imaging

Program Title
Nuclear Med Molecular Imaging

Program Code
BNUC-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510905

BOMG-BS_BOMG-MAJOR - Operations Management

Overview

Program Long Title
Operations Management

Program Title
Operations Management

Program Code
BOMG-BS_BOMG-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

BOMG-ND_ETM-MAJOR - Operations Management

Overview

Program Long Title
Operations Management

Program Title
Operations Management

Program Code
BOMG-ND_ETM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
520205

BPHM-BS_BPHM-MAJOR - Population Health Management

Overview

Program Long Title
Population Health Management

Program Title
Population Health Management

Program Code
BPHM-BS_BPHM-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
512212

BPHS-BPSO-BS_BPSO-CONCENTRATION - Human Services Emphasis

Overview

Program Long Title
Human Services Emphasis

Program Title
Human Services Emphasis

Program Code
BPHS-BPSO-BS_BPSO-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPHS-BPSY-BS_BPSY-CONCENTRATION - Human Services Emphasis

Overview

Program Long Title
Human Services Emphasis

Program Title
Human Services Emphasis

Program Code
BPHS-BPSY-BS_BPSY-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPOD-BPSO-BS_BPSO-CONCENTRATION - Organizational Development Emp

Overview

Program Long Title
Organizational Development Emp

Program Title
Organizational Development Emp

Program Code
BPOD-BPSO-BS_BPSO-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPOD-BPSY-BS_BPSY-CONCENTRATION - Organizational Development Emp

Overview

Program Long Title
Organizational Development Emp

Program Title
Organizational Development Emp

Program Code
BPOD-BPSY-BS_BPSY-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPPE-BPSO-BS_BPSO-CONCENTRATION - Pre-Education Emphasis

Overview

Program Long Title
Pre-Education Emphasis

Program Title
Pre-Education Emphasis

Program Code
BPPE-BPSO-BS_BPSO-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPPE-BPSY-BS_BPSY-CONCENTRATION - Pre-Education Emphasis

Overview

Program Long Title
Pre-Education Emphasis

Program Title
Pre-Education Emphasis

Program Code
BPPE-BPSY-BS_BPSY-CONCENTRATION

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSO-BS_BPSO-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSO-BS_BPSO-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSY-BS_BPSY-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSY-BS_BPSY-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSY-BS_BPSYHS-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSY-BS_BPSYHS-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSY-BS_BPSYOD-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSY-BS_BPSYOD-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSY-BS_BPSYPE-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSY-BS_BPSYPE-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
422813

BPSY-ND_HAS-MAJOR - Applied Psychology

Overview

Program Long Title
Applied Psychology

Program Title
Applied Psychology

Program Code
BPSY-ND_HAS-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
422813

BPWR-BS_BPWR-MAJOR - Professional Writing

Overview

Program Long Title
Professional Writing

Program Title
Professional Writing

Program Code
BPWR-BS_BPWR-MAJOR

Department(s)
Communication

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
231303

BRCO-BS_BRCO-MAJOR - Respiratory Care

Overview

Program Long Title
Respiratory Care

Program Title
Respiratory Care

Program Code
BRCO-BS_BRCO-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510908

BRCO-ND_HAS-MAJOR - Respiratory Care

Overview

Program Long Title
Respiratory Care

Program Title
Respiratory Care

Program Code
BRCO-ND_HAS-MAJOR

Department(s)
AH

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510908

BRCP-BS_BRCP-MAJOR - Respiratory Care

Overview

Program Long Title
Respiratory Care

Program Title
Respiratory Care

Program Code
BRCP-BS_BRCP-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510908

BREE-BS_BREE-MAJOR - Renewable Energy Engineering

Overview

Program Long Title
Renewable Energy Engineering

Program Title
Renewable Energy Engineering

Program Code
BREE-BS_BREE-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
144801

BRSC-BS_BRSC-MAJOR - Radiologic Science

Overview

Program Long Title
Radiologic Science

Program Title
Radiologic Science

Program Code
BRSC-BS_BRSC-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510911

BRSC-ND_HAS-MAJOR - Radiologic Science

Overview

Program Long Title
Radiologic Science

Program Title
Radiologic Science

Program Code
BRSC-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510911

BRSO-BS_BRSO-MAJOR - Radiologic Science

Overview

Program Long Title
Radiologic Science

Program Title
Radiologic Science

Program Code
BRSO-BS_BRSO-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510911

BRSO-ND_HAS-MAJOR - Radiologic Science

Overview

Program Long Title
Radiologic Science

Program Title
Radiologic Science

Program Code
BRSO-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510911

BSBM-BS_BSBM-MAJOR - Business Management Option

Overview

Program Long Title
Business Management Option

Program Title
Business Management Option

Program Code
BSBM-BS_BSBM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520701

BSBM-ND_ETM-MAJOR - Business Management Option

Overview

Program Long Title
Business Management Option

Program Title
Business Management Option

Program Code
BSBM-ND_ETM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
520701

BSOF-BS_BCMPSOF-MAJOR - Software Engineering Tech

Overview

Program Long Title
Software Engineering Tech

Program Title
Software Engineering Tech

Program Code
BSOF-BS_BCMPSOF-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151204

BSOF-BS_BSOF-MAJOR - Software Engineering Tech

Overview

Program Long Title
Software Engineering Tech

Program Title
Software Engineering Tech

Program Code
BSOF-BS_BSOF-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
151204

BSOF-ND_ETM-MAJOR - Software Engineering Tech

Overview

Program Long Title
Software Engineering Tech

Program Title
Software Engineering Tech

Program Code
BSOF-ND_ETM-MAJOR

Department(s)
Computer Systems Eng Tech

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
151204

BSON-BS_BSON-MAJOR - Diagnostic Medical Sonography

Overview

Program Long Title
Diagnostic Medical Sonography

Program Title
Diagnostic Medical Sonography

Program Code
BSON-BS_BSON-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BSON-ND_HAS-MAJOR - Diagnostic Medical Sonography

Overview

Program Long Title
Diagnostic Medical Sonography

Program Title
Diagnostic Medical Sonography

Program Code
BSON-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510910

BSOO-BS_BSOO-MAJOR - Diagnostic Medical Sonography

Overview

Program Long Title
Diagnostic Medical Sonography

Program Title
Diagnostic Medical Sonography

Program Code
BSOO-BS_BSOO-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BTM-BAS_BTM-MAJOR - Technology and Management

Overview

Program Long Title
Technology and Management

Program Title
Technology and Management

Program Code
BTM-BAS_BTM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
BAS

Program Level
UG

CIP Code
529999

BVTO-BS_BVTO-MAJOR - Vascular Technology

Overview

Program Long Title
Vascular Technology

Program Title
Vascular Technology

Program Code
BVTO-BS_BVTO-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BVT-BS_BVT-MAJOR - Vascular Technology

Overview

Program Long Title
Vascular Technology

Program Title
Vascular Technology

Program Code
BVT-BS_BVT-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
BS

Program Level
UG

CIP Code
510910

BVTO-ND_HAS-MAJOR - Vascular Technology

Overview

Program Long Title
Vascular Technology

Program Title
Vascular Technology

Program Code
BVTO-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510910

BVT-ND_HAS-MAJOR - Vascular Technology

Overview

Program Long Title
Vascular Technology

Program Title
Vascular Technology

Program Code
BVT-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510910

CABA-C_CABA_GPA-MAJOR - Applied Behavior Analysis

Overview

Program Long Title
Applied Behavior Analysis

Program Title
Applied Behavior Analysis

Program Code
CABA-C_CABA_GPA-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
GR

CIP Code
422814

CABA-C_CABA_GR-MAJOR - Applied Behavior Analysis

Overview

Program Long Title
Applied Behavior Analysis

Program Title
Applied Behavior Analysis

Program Code
CABA-C_CABA_GR-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
GR

CIP Code
422814

CACC-C_CACC-MAJOR - Post Bac Accounting Cert

Overview

Program Long Title
Post Bac Accounting Cert

Program Title
Post Bac Accounting Cert

Program Code
CACC-C_CACC-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
520301

CBCM-C_CBCM-MAJOR - Heavy Construction Mgmt Cert

Overview

Program Long Title
Heavy Construction Mgmt Cert

Program Title
Heavy Construction Mgmt Cert

Program Code
CBCM-C_CBCM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
522001

CBGL-C_CBGL-MAJOR - Global Leadership Mgmt Cert

Overview

Program Long Title
Global Leadership Mgmt Cert

Program Title
Global Leadership Mgmt Cert

Program Code
CBGL-C_CBGL-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
520701

CBME-C_CBME-MAJOR - Business Mgmt Essentials Cert

Overview

Program Long Title
Business Mgmt Essentials Cert

Program Title
Business Mgmt Essentials Cert

Program Code
CBME-C_CBME-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
520701

CBMS-C_CBMS-MAJOR - Business Mgmt Info System Cert

Overview

Program Long Title
Business Mgmt Info System Cert

Program Title
Business Mgmt Info System Cert

Program Code
CBMS-C_CBMS-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
110103

CBSM-C_CBSM-MAJOR - Business Systems Mgmt Cert

Overview

Program Long Title
Business Systems Mgmt Cert

Program Title
Business Systems Mgmt Cert

Program Code
CBSM-C_CBSM-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
520701

CCSH-C_CCSH-MAJOR - Clinical Sleep Health

Overview

Program Long Title
Clinical Sleep Health

Program Title
Clinical Sleep Health

Program Code
CCSH-C_CCSH-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
512706

CCGW-C_CCGW-MAJOR - Proposal & Grant Writing Cert

Overview

Program Long Title
Proposal & Grant Writing Cert

Program Title
Proposal & Grant Writing Cert

Program Code
CCGW-C_CCGW-MAJOR

Department(s)
Communication

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
231303

CCTM-C_CCTM-MAJOR - Technical Medical Writing Cert

Overview

Program Long Title
Technical Medical Writing Cert

Program Title
Technical Medical Writing Cert

Program Code
CCTM-C_CCTM-MAJOR

Department(s)
Communication

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
231303

CCHC-C_CCHC-MAJOR - Health Communication Cert

Overview

Program Long Title
Health Communication Cert

Program Title
Health Communication Cert

Program Code
CCHC-C_CCHC-MAJOR

Department(s)
Communication

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
090100

CCUX-C_CCUX-MAJOR - UX Writing Cert

Overview

Program Long Title
UX Writing Cert

Program Title
UX Writing Cert

Program Code
CCUX-C_CCUX-MAJOR

Department(s)
Communication

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
231303

CDR-C_CDR-MAJOR - Dispute Resolution Certificate

Overview

Program Long Title
Dispute Resolution Certificate

Program Title
Dispute Resolution Certificate

Program Code
CDR-C_CDR-MAJOR

Department(s)
Communication

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
302801

CGIS-C_CGIS-MAJOR - Geomatics Info Systems Cert

Overview

Program Long Title
Geomatics Info Systems Cert

Program Title
Geomatics Info Systems Cert

Program Code
CGIS-C_CGIS-MAJOR

Department(s)
Applied Computing & Geomatics

College/School
College of ETM

Degree Designation
CERT

Program Level
UG

CIP Code
151102

CHCC-C_CHCC-MAJOR - Cultural Comp Cert

Overview

Program Long Title
Cultural Comp Cert

Program Title
Cultural Comp Cert

Program Code
CHCC-C_CHCC-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
512212

CHET-C_CHET-MAJOR - Ethics Cert

Overview

Program Long Title
Ethics Cert

Program Title
Ethics Cert

Program Code
CHET-C_CHET-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
380103

CHSD-C_CHSD-MAJOR - Social Determinants Cert

Overview

Program Long Title
Social Determinants Cert

Program Title
Social Determinants Cert

Program Code
CHSD-C_CHSD-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
512212

CMFT-C_CMFT_GR-MAJOR - Medical Family Therapy

Overview

Program Long Title
Medical Family Therapy

Program Title
Medical Family Therapy

Program Code
CMFT-C_CMFT_GR-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
GR

CIP Code
511505

CMRI-C_CMRI-MAJOR - Magnetic Resonance Imagng Cert

Overview

Program Long Title
Magnetic Resonance Imagng Cert

Program Title
Magnetic Resonance Imagng Cert

Program Code
CMRI-C_CMRI-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
510920

CPAC-C_CPAC-MAJOR - Picture Archive/Comm Sys Cert

Overview

Program Long Title
Picture Archive/Comm Sys Cert

Program Title
Picture Archive/Comm Sys Cert

Program Code
CPAC-C_CPAC-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
510907

CPSE-C_CPSE_GR-MAJOR - Power Systems Engineering

Overview

Program Long Title
Power Systems Engineering

Program Title
Power Systems Engineering

Program Code
CPSE-C_CPSE_GR-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
CERT

Program Level
GR

CIP Code
141001

CPSG-C_CPSG-MAJOR - Polysomnographic Technology

Overview

Program Long Title
Polysomnographic Technology

Program Title
Polysomnographic Technology

Program Code
CPSG-C_CPSG-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
CERT

Program Level
UG

CIP Code
510917

CSEE-C_CSEE_GR-MAJOR - Systems Engineering

Overview

Program Long Title
Systems Engineering

Program Title
Systems Engineering

Program Code
CSEE-C_CSEE_GR-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
CERT

Program Level
GR

CIP Code
141001

DPT-FP_DPT-MAJOR - Doctor Physical Therapy

Overview

Program Long Title
Doctor Physical Therapy

Program Title
Doctor Physical Therapy

Program Code
DPT-FP_DPT-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
DPT

Program Level
FP

CIP Code
512308

EEEP-BEE-BS_BEE-CONCENTRATION - Electrical Power Emphasis

Overview

Program Long Title
Electrical Power Emphasis

Program Title
Electrical Power Emphasis

Program Code
EEEP-BEE-BS_BEE-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

EEEP-BEET-BS_BEET-CONCENTRATION - Electrical Power Emphasis

Overview

Program Long Title
Electrical Power Emphasis

Program Title
Electrical Power Emphasis

Program Code
EEEP-BEET-BS_BEET-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

EEMT-BEET-BS_BEET-CONCENTRATION - Microelectronics Emphasis

Overview

Program Long Title
Microelectronics Emphasis

Program Title
Microelectronics Emphasis

Program Code
EEMT-BEET-BS_BEET-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
150303

EEOE-BEET-BS_BEET-CONCENTRATION - Optoelectornic Emphasis

Overview

Program Long Title
Optoelectornic Emphasis

Program Title
Optoelectornic Emphasis

Program Code
EEOE-BEET-BS_BEET-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

EERA-BEET-BS_BEET-CONCENTRATION - Robotics, Automation, Control

Overview

Program Long Title
Robotics, Automation, Control

Program Title
Robotics, Automation, Control

Program Code
EERA-BEET-BS_BEET-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

EERE-BEE-BS_BEE-CONCENTRATION - Renewable Energy Sys Emphasis

Overview

Program Long Title
Renewable Energy Sys Emphasis

Program Title
Renewable Energy Sys Emphasis

Program Code
EERE-BEE-BS_BEE-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

EERE-BEET-BS_BEET-CONCENTRATION - Renewable Energy Sys Emphasis

Overview

Program Long Title
Renewable Energy Sys Emphasis

Program Title
Renewable Energy Sys Emphasis

Program Code
EERE-BEET-BS_BEET-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
141001

GEST-GEST-MAJOR - General Studies

Overview

Program Long Title
General Studies

Program Title
General Studies

Program Code
GEST-GEST-MAJOR

Department(s)
General Studies

College/School
General Studies

Degree Designation
000000

Program Level
UG

CIP Code
240102

IALP-I_IALP-MINOR - Arts, Literature & Philosophy

Overview

Program Long Title
Arts, Literature & Philosophy

Program Title
Arts, Literature & Philosophy

Program Code
IALP-I_IALP-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
240103

IAM-I_IAM-MINOR - Applied Mathematics

Overview

Program Long Title
Applied Mathematics

Program Title
Applied Mathematics

Program Code
IAM-I_IAM-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
270304

IBIO-I_IBIO-MINOR - Biology

Overview

Program Long Title
Biology

Program Title
Biology

Program Code
IBIO-I_IBIO-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
260101

IBUS-I_IBUS-MINOR - Business

Overview

Program Long Title
Business

Program Title
Business

Program Code
IBUS-I_IBUS-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
520101

ICHE-I_ICHE-MINOR - Chemistry

Overview

Program Long Title
Chemistry

Program Title
Chemistry

Program Code
ICHE-I_ICHE-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
400501

ICM-I_ICM-MINOR - Construction Management

Overview

Program Long Title
Construction Management

Program Title
Construction Management

Program Code
ICM-I_ICM-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
522001

ICOA-I_ICOA-MINOR - Coaching

Overview

Program Long Title
Coaching

Program Title
Coaching

Program Code
ICOA-I_ICOA-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
131314

IGIS-I_IGIS-MINOR - Geographic Information Systems

Overview

Program Long Title
Geographic Information Systems

Program Title
Geographic Information Systems

Program Code
IGIS-I_IGIS-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
450799

IHEI-I_IHEI-MINOR - Health Informatics

Overview

Program Long Title
Health Informatics

Program Title
Health Informatics

Program Code
IHEI-I_IHEI-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
512706

IHI-I_IHI-MINOR - Human Interaction

Overview

Program Long Title
Human Interaction

Program Title
Human Interaction

Program Code
IHI-I_IHI-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
090100

IIBU-I_IIBU-MINOR - International Business

Overview

Program Long Title
International Business

Program Title
International Business

Program Code
IIBU-I_IIBU-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
521101

IIE-I_IIE-MINOR - Innovation & Entrepreneurship

Overview

Program Long Title
Innovation & Entrepreneurship

Program Title
Innovation & Entrepreneurship

Program Code
IIE-I_IIE-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
520701

IIT-I_IIT-MINOR - Information Technology

Overview

Program Long Title
Information Technology

Program Title
Information Technology

Program Code
IIT-I_IIT-MINOR

College/School
College of ETM

Degree Designation
MINOR

Program Level
UG

CIP Code
110103

IMSC-I_IMSC-MINOR - Medical Sociology

Overview

Program Long Title
Medical Sociology

Program Title
Medical Sociology

Program Code
IMSC-I_IMSC-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
451101

IPHY-I_IPHY-MINOR - Applied Physics

Overview

Program Long Title
Applied Physics

Program Title
Applied Physics

Program Code
IPHY-I_IPHY-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
141201

IPSY-I_IPSY-MINOR - Psychology

Overview

Program Long Title
Psychology

Program Title
Psychology

Program Code
IPSY-I_IPSY-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
422813

IPWT-I_IPWT-MINOR - Professional Wri & Tech Comm

Overview

Program Long Title
Professional Wri & Tech Comm

Program Title
Professional Wri & Tech Comm

Program Code
IPWT-I_IPWT-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
231303

ISTA-I_ISTA-MINOR - Applied Statistics

Overview

Program Long Title
Applied Statistics

Program Title
Applied Statistics

Program Code
ISTA-I_ISTA-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
270304

ISUS-I_ISUS-MINOR - Sustainability

Overview

Program Long Title
Sustainability

Program Title
Sustainability

Program Code
ISUS-I_ISUS-MINOR

College/School
College of HAS

Degree Designation
MINOR

Program Level
UG

CIP Code
410101

MABA-MS_MABA-MAJOR - Applied Behavior Analysis

Overview

Program Long Title
Applied Behavior Analysis

Program Title
Applied Behavior Analysis

Program Code
MABA-MS_MABA-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
MS

Program Level
GR

CIP Code
422814

MBMN-MS_MBMN-MAJOR - Biomedical Sciences

Overview

Program Long Title
Biomedical Sciences

Program Title
Biomedical Sciences

Program Code
MBMN-MS_MBMN-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
MS

Program Level
GR

CIP Code
260101

MBMS-MS_MBMS-MAJOR - Biomedical Sciences, Thesis

Overview

Program Long Title
Biomedical Sciences, Thesis

Program Title
Biomedical Sciences, Thesis

Program Code
MBMS-MS_MBMS-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
MS

Program Level
GR

CIP Code
260101

MCE-MS_MCE-MAJOR - Civil Engineering

Overview

Program Long Title
Civil Engineering

Program Title
Civil Engineering

Program Code
MCE-MS_MCE-MAJOR

Department(s)
Civil Engineering

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140801

MMAN-MS_MMAN-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
MMAN-MS_MMAN-MAJOR

Department(s)
Manufacturing & Mechanical Eng

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
150613

MMAN-ND_ETM-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
MMAN-ND_ETM-MAJOR

Department(s)
MAN

College/School
College of ETM

Degree Designation
000000

Program Level
UG

CIP Code
150613

MMAN-ND_ETMGR-MAJOR - Manufacturing Engineering Tech

Overview

Program Long Title
Manufacturing Engineering Tech

Program Title
Manufacturing Engineering Tech

Program Code
MMAN-ND_ETMGR-MAJOR

Department(s)
MAN

College/School
College of ETM

Degree Designation
000000

Program Level
GR

CIP Code
150613

MMFT-MS_MMFT-MAJOR - Marriage and Family Therapy

Overview

Program Long Title
Marriage and Family Therapy

Program Title
Marriage and Family Therapy

Program Code
MMFT-MS_MMFT-MAJOR

Department(s)
Humanities & Social Sciences

College/School
College of HAS

Degree Designation
MS

Program Level
GR

CIP Code
511505

MNAR-MS_MNAR-MAJOR - Natural Resources

Overview

Program Long Title
Natural Resources

Program Title
Natural Resources

Program Code
MNAR-MS_MNAR-MAJOR

Department(s)
Natural Sciences

College/School
College of HAS

Degree Designation
MS

Program Level
GR

CIP Code
030104

MREE-MS_MREE-MAJOR - Renewable Energy Engineering

Overview

Program Long Title
Renewable Energy Engineering

Program Title
Renewable Energy Engineering

Program Code
MREE-MS_MREE-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
149999

MSE-MS_MSE-MAJOR - Engineering

Overview

Program Long Title
Engineering

Program Title
Engineering

Program Code
MSE-MS_MSE-MAJOR

Department(s)
Electrical & Renewable Energy

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

NURS-BS_NURS-MAJOR - OHSU Nursing

Overview

Program Long Title
OHSU Nursing

Program Title
OHSU Nursing

Program Code
NURS-BS_NURS-MAJOR

Department(s)
OHSU Nursing

College/School
General Studies

Degree Designation
000000

Program Level
UG

CIP Code
513801

OGC-BCM-BS_BCM-CONCENTRATION - BUS General Construction

Overview

Program Long Title
BUS General Construction

Program Title
BUS General Construction

Program Code
OGC-BCM-BS_BCM-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
522001

OHC-BCM-BS_BCM-CONCENTRATION - BUS Heavy Construction

Overview

Program Long Title
BUS Heavy Construction

Program Title
BUS Heavy Construction

Program Code
OHC-BCM-BS_BCM-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
522001

PDH-ND_HAS-MAJOR - Pre-Dental Hygiene Gen Study

Overview

Program Long Title
Pre-Dental Hygiene Gen Study

Program Title
Pre-Dental Hygiene Gen Study

Program Code
PDH-ND_HAS-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
300101

PDH-PDH-MAJOR - Pre-Dental Hygiene Gen Study

Overview

Program Long Title
Pre-Dental Hygiene Gen Study

Program Title
Pre-Dental Hygiene Gen Study

Program Code
PDH-PDH-MAJOR

Department(s)
Dental Hygiene

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
300101

PMIT-ND_HAS-MAJOR - Pre-Medical Imaging Gen Study

Overview

Program Long Title
Pre-Medical Imaging Gen Study

Program Title
Pre-Medical Imaging Gen Study

Program Code
PMIT-ND_HAS-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510907

PMIT-PMIT-MAJOR - Pre-Medical Imaging Gen Study

Overview

Program Long Title
Pre-Medical Imaging Gen Study

Program Title
Pre-Medical Imaging Gen Study

Program Code
PMIT-PMIT-MAJOR

Department(s)
Medical Imaging Technology

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510907

PMLS-PMLS-MAJOR - Pre-Medical Lab Sci Gen Study

Overview

Program Long Title
Pre-Medical Lab Sci Gen Study

Program Title
Pre-Medical Lab Sci Gen Study

Program Code
PMLS-PMLS-MAJOR

Department(s)
Medical Lab Science

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
511099

PN-ND_HAS-MAJOR - Pre-Nursing Gen Study

Overview

Program Long Title
Pre-Nursing Gen Study

Program Title
Pre-Nursing Gen Study

Program Code
PN-ND_HAS-MAJOR

Department(s)
OHSU Nursing

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
300101

PN-PN-MAJOR - Pre-Nursing Gen Study

Overview

Program Long Title
Pre-Nursing Gen Study

Program Title
Pre-Nursing Gen Study

Program Code
PN-PN-MAJOR

Department(s)
OHSU Nursing

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
300101

PPEP-GENS-MAJOR - Pre-Paramedic Gen Study

Overview

Program Long Title
Pre-Paramedic Gen Study

Program Title
Pre-Paramedic Gen Study

Program Code
PPEP-GENS-MAJOR

Department(s)
AH

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510904

PPEP-PPEP-MAJOR - Pre-Paramedic Gen Study

Overview

Program Long Title
Pre-Paramedic Gen Study

Program Title
Pre-Paramedic Gen Study

Program Code
PPEP-PPEP-MAJOR

Department(s)
Emergency Medical Services

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510904

PRC-PRC-MAJOR - Pre-Respiratory Care Gen Study

Overview

Program Long Title
Pre-Respiratory Care Gen Study

Program Title
Pre-Respiratory Care Gen Study

Program Code
PRC-PRC-MAJOR

Department(s)
Health Sciences

College/School
College of HAS

Degree Designation
000000

Program Level
UG

CIP Code
510908

REMG-BMKT-BS_BMKT-CONCENTRATION - Renewable Energy Management

Overview

Program Long Title
Renewable Energy Management

Program Title
Renewable Energy Management

Program Code
REMG-BMKT-BS_BMKT-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

REMG-BOMG-BS_BOMG-CONCENTRATION - Renewable Energy Management

Overview

Program Long Title
Renewable Energy Management

Program Title
Renewable Energy Management

Program Code
REMG-BOMG-BS_BOMG-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

REMG-BOMO-BS_BOMO-CONCENTRATION - Renewable Energy Management

Overview

Program Long Title
Renewable Energy Management

Program Title
Renewable Energy Management

Program Code
REMG-BOMO-BS_BOMO-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

REMG-BSBM-BS_BSBM-CONCENTRATION - Renewable Energy Management

Overview

Program Long Title
Renewable Energy Management

Program Title
Renewable Energy Management

Program Code
REMG-BSBM-BS_BSBM-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

SACT-S_ACCT-MAJOR - Specialization in Accounting

Overview

Program Long Title
Specialization in Accounting

Program Title
Specialization in Accounting

Program Code
SACT-S_ACCT-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
SPEC

Program Level
UG

CIP Code
520301

SEAR-MS_MSE-CONCENTRATION - MSE Autonomous, Robotics, Con

Overview

Program Long Title
MSE Autonomous, Robotics, Con

Program Title
MSE Autonomous, Robotics, Con

Program Code
SEAR-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SEOE-MS_MSE-CONCENTRATION - MSE Optical Engineering

Overview

Program Long Title
MSE Optical Engineering

Program Title
MSE Optical Engineering

Program Code
SEOE-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SEEE-MS_MSE-CONCENTRATION - MSE Electrical Engineering

Overview

Program Long Title
MSE Electrical Engineering

Program Title
MSE Electrical Engineering

Program Code
SEEE-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SEPS-MS_MSE-CONCENTRATION - MSE Power Systems Engr

Overview

Program Long Title
MSE Power Systems Engr

Program Title
MSE Power Systems Engr

Program Code
SEPS-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SEEI-MS_MSE-CONCENTRATION - MSE Embedded Systems Engr

Overview

Program Long Title
MSE Embedded Systems Engr

Program Title
MSE Embedded Systems Engr

Program Code
SEEI-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SESB-S_SESB-MAJOR - Spec in Entrepreneur/Small Bus

Overview

Program Long Title
Spec in Entrepreneur/Small Bus

Program Title
Spec in Entrepreneur/Small Bus

Program Code
SESB-S_SESB-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
SPEC

Program Level
UG

CIP Code
520701

SESE-MS_MSE-CONCENTRATION - MSE Systems Engineering

Overview

Program Long Title
MSE Systems Engineering

Program Title
MSE Systems Engineering

Program Code
SESE-MS_MSE-CONCENTRATION

College/School
College of ETM

Degree Designation
MS

Program Level
GR

CIP Code
140101

SMKT-S_SMKT-MAJOR - Specialization in Marketing

Overview

Program Long Title
Specialization in Marketing

Program Title
Specialization in Marketing

Program Code
SMKT-S_SMKT-MAJOR

Department(s)
Management

College/School
College of ETM

Degree Designation
SPEC

Program Level
UG

CIP Code
521401

SSGB-BMKT-BS_BMKT-CONCENTRATION - Six Sigma Green Belt Emphasis

Overview

Program Long Title
Six Sigma Green Belt Emphasis

Program Title
Six Sigma Green Belt Emphasis

Program Code
SSGB-BMKT-BS_BMKT-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

SSGB-BOMG-BS_BOMG-CONCENTRATION - Six Sigma Green Belt Emphasis

Overview

Program Long Title
Six Sigma Green Belt Emphasis

Program Title
Six Sigma Green Belt Emphasis

Program Code
SSGB-BOMG-BS_BOMG-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

SSGB-BOMO-BS_BOMO-CONCENTRATION - Six Sigma Green Belt Emphasis

Overview

Program Long Title
Six Sigma Green Belt Emphasis

Program Title
Six Sigma Green Belt Emphasis

Program Code
SSGB-BOMO-BS_BOMO-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

SSGB-BSBM-BS_BSBM-CONCENTRATION - Six Sigma Green Belt Emphasis

Overview

Program Long Title
Six Sigma Green Belt Emphasis

Program Title
Six Sigma Green Belt Emphasis

Program Code
SSGB-BSBM-BS_BSBM-CONCENTRATION

College/School
College of ETM

Degree Designation
BS

Program Level
UG

CIP Code
520205

All Courses

ABA501 - ABA Colloquium

Overview

Course Subject Code
ABA

Course Number
501

Course Title
ABA Colloquium

Department
Humanities & Social Sciences

Course Description
Weekly seminar focused on current topicsm research in ABA. May be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA502 - Int Training, Sci & Prac ABA I

Overview

Course Subject Code
ABA

Course Number
502

Course Title
Int Training, Sci & Prac ABA I

Department
Humanities & Social Sciences

Course Description
First of three term sequence to prepare students to benefit from supervised fieldwork and to practice as behavior analysts. Focus on requirements for obtaining supervised fieldwork, fieldwork best practices and documentation requirements.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA503 - Int Training Sci & Prac ABA II

Overview

Course Subject Code
ABA

Course Number
503

Course Title
Int Training Sci & Prac ABA II

Department
Humanities & Social Sciences

Course Description
Second course in three-term sequence to prepare students to benefit from supervised fieldwork and to prepare students to practice as behavior analysts. Covers assessment and development of time management and interpersonal skills.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'B' in Course ABA502
Type
Prerequisite

Earn a minimum grade (GR) of B in the following:

- ABA502 - Int Training, Sci & Prac ABA I

Additional Comments:

ABA504 - Intro Training, Sci & Prac ABA

Overview

Course Subject Code
ABA

Course Number
504

Course Title
Intro Training, Sci & Prac ABA

Department
Humanities & Social Sciences

Course Description
Third course in a three-term sequence to prepare students to benefit from supervised fieldwork and to prepare students to practice as behavior analysts. Focus on documentation and skills for caseload management.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA507 - Seminar

Overview

Course Subject Code
ABA

Course Number
507

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
7

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
7

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
7

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
7

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ABA511 - Foundations of ABA

Overview

Course Subject Code
ABA

Course Number
511

Course Title
Foundations of ABA

Department
Humanities & Social Sciences

Course Description
Basic principles, characteristics, and concepts of Applied Behavior Analysis (ABA). Includes history of ABA, terminology, and applications.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA512 - Foundations of ABA II

Overview

Course Subject Code
ABA

Course Number
512

Course Title
Foundations of ABA II

Department
Humanities & Social Sciences

Course Description
Basic principles, characteristic, and concepts of Applied Behavior Analysis (ABA). Foundational knowledge for practice of ABA; introduction to measurement and data analysis.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA515 - Basic Behavior Analysis

Overview

Course Subject Code
ABA

Course Number
515

Course Title
Basic Behavior Analysis

Department
Humanities & Social Sciences

Course Description
Experimental analysis of behavior, human, and non-human research, basic principles of operant and respondent conditioning

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA516 - ABA & Human Development

Overview

Course Subject Code
ABA

Course Number
516

Course Title
ABA & Human Development

Department
Humanities & Social Sciences

Course Description
Typical and atypical development across the lifespan, emphasis on behavioral theories, principles, and applications

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

ABA521 - Ethics

Overview

Course Subject Code
ABA

Course Number
521

Course Title
Ethics

Department
Humanities & Social Sciences

Course Description
Course content includes, but is not limited to, ethical principles, the BACB's ethics codes and requirements, the BACB's code-enforcement mechanisms, and professionalism.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA522 - Ethics & Profess Issues II

Overview

Course Subject Code
ABA

Course Number
522

Course Title
Ethics & Profess Issues II

Department
Humanities & Social Sciences

Course Description
Examines ethical and professional issues in Applied Behavior Analysis (ABA) including ethical and professional conduct, ethical decision making, implementation, management and supervision, and professional practices.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA524 - Observations and Measurements

Overview

Course Subject Code
ABA

Course Number
524

Course Title
Observations and Measurements

Department
Humanities & Social Sciences

Course Description
Theory and practice related to the BACB Task List items related to observation and measurement including: methods for conducting valid and reliable direct observation techniques including data collection, data display, and data interpretation; methods for calculating inter-observer agreement.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

ABA525 - Research Methods in ABA

Overview

Course Subject Code
ABA

Course Number
525

Course Title
Research Methods in ABA

Department
Humanities & Social Sciences

Course Description
Methods for conducting valid and reliable behavioral measurement and experimental evaluations of behavioral interventions, including data collection, data display, and data interpretation and designing and evaluating behavioral research designs.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA526 - Behavioral Assessment

Overview

Course Subject Code
ABA

Course Number
526

Course Title
Behavioral Assessment

Department
Humanities & Social Sciences

Course Description
Behavioral assessment including descriptive assessments and functional analysis; methods of assessment, data collection and interpretation; assessment based selection of intervention; ethical and practical issues.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA527 - Behaviorism

Overview

Course Subject Code
ABA

Course Number
527

Course Title
Behaviorism

Department
Humanities & Social Sciences

Course Description
Underlying theoretical and philosophical foundations of behavior analysis (ie, behaviorism)

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA531 - Decreasing Behavior

Overview

Course Subject Code
ABA

Course Number
531

Course Title
Decreasing Behavior

Department
Humanities & Social Sciences

Course Description
Selection and implementation of behavior assessment and behavior analytic intervention techniques related to decreasing interfering or challenging behavior.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA532 - Increasing Behavior

Overview

Course Subject Code
ABA

Course Number
532

Course Title
Increasing Behavior

Department
Humanities & Social Sciences

Course Description
Selection and implementation of behavior assessment and behavior analytic intervention techniques related to developing new skills or increasing behavior.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA535 - Special Topics in ABA

Overview

Course Subject Code
ABA

Course Number
535

Course Title
Special Topics in ABA

Department
Humanities & Social Sciences

Course Description
Examination of systems, interventions, current issues, and/or advances in Applied Behavior Analysis; includes focus on strategies for managing program implementation and supervision of behavioral change agents. Topics vary.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA536 - Behavior, Physiology, & Pharm.

Overview

Course Subject Code
ABA

Course Number
536

Course Title
Behavior, Physiology, & Pharm.

Department
Humanities & Social Sciences

Course Description
Interrelationship of psychological and behavioral processes, includes psychotropic medications, drug effects and interactions

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA546 - Behavioral Assessment II

Overview

Course Subject Code
ABA

Course Number
546

Course Title
Behavioral Assessment II

Department
Humanities & Social Sciences

Course Description
Assessment and measurement techniques related to skill deficits in children and adolescents with developmental or intellectual disability. Includes VB-MAPP, ABLLS, PEAK, EFL, AFLS, Vineland, social skills assessments, and others.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

ABA547 - Supervision and Management

Overview

Course Subject Code
ABA

Course Number
547

Course Title
Supervision and Management

Department
Humanities & Social Sciences

Course Description
Methods of behavior analytic personnel supervision and management including but not limited to ethicaland professional responsibilities, establishing performance standards and goals, feedback, behaviorskills training, problem solving, and evaluation of the effectiveness of supervision. Additionally, this coursewill serve to fulfill the curriculum requirement for the BACB Supervisor 8-Hour Training based on theSupervisor Training Curriculum (2.0).

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

ABA565 - Organizational Behavior Mgmt.

Overview

Course Subject Code
ABA

Course Number
565

Course Title
Organizational Behavior Mgmt.

Department
Humanities & Social Sciences

Course Description
Application of the theory, principles, and methods of behavior analysis in businesses, industries, human service organizations, and governments.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
5

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
5

Lecture Hours

Lecture Hours
Min
5

Pre-Requisites

No Requirements

ABA566 - ABA & Education

Overview

Course Subject Code
ABA

Course Number
566

Course Title
ABA & Education

Department
Humanities & Social Sciences

Course Description
Applications of behavior analysis in education; instructional design and classroom behavior management applications in education, special education, and college instruction

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA581 - Clinical Skills I

Overview

Course Subject Code
ABA

Course Number
581

Course Title
Clinical Skills I

Department
Humanities & Social Sciences

Course Description
Application of basic skill acquisition procedures including but not limited to preference assessments, assessments to identify behavior in need of increase or acquisition, shaping, chaining, various prompt strategies, DTT and NET instruction

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA582 - Clinical Skills II

Overview

Course Subject Code
ABA

Course Number
582

Course Title
Clinical Skills II

Department
Humanities & Social Sciences

Course Description
Application of basic behavior reduction procedures including functional assessment, antecedent interventions, interventions based on motivating operations, differential reinforcement procedures, extinction, and punishment

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA583 - Clinical Skills III

Overview

Course Subject Code
ABA

Course Number
583

Course Title
Clinical Skills III

Department
Humanities & Social Sciences

Course Description
Case conceptualization skills, by examining real or "contrived" cases from intake, to assessment, goal selection and treatment recommendations

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

ABA598 - Supervised Practicum

Overview

Course Subject Code
ABA

Course Number
598

Course Title
Supervised Practicum

Department
Humanities & Social Sciences

Course Description
Practical experience in Applied Behavior Analysis. Students will have the opportunity to develop proficiency in behavior analytic consultation and and service delivery. May be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
99

Pre-Requisites

No Requirements

ABA599 - Thesis

Overview

Course Subject Code
ABA

Course Number
599

Course Title
Thesis

Department
Humanities & Social Sciences

Course Description
Supervised research experience of the thesis leading to the master's degree in Applied Behavior Analysis. May be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
16

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
16

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACAD101 - Student Success Sem

Overview

Course Subject Code
ACAD

Course Number
101

Course Title
Student Success Sem

Department
Humanities & Social Sciences

Course Description
A course to facilitate the success of first year students at OIT. Emphasis on faculty-student and student-student interactions. Includes academic resources, campus services, the learning process, communication skills, health and wellness issues. May also include academic skills and career planning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
2

Other Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ACAD107 - Seminar

Overview

Course Subject Code
ACAD

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
2

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACAD110 - ETM Freshman Seminar

Overview

Course Subject Code
ACAD

Course Number
110

Course Title
ETM Freshman Seminar

Department
Civil Engineering

Course Description
This course provides first-year students in Engineering, Technology, and Management (ETM) with essential tools, resources, and strategies to navigate their academic journey successfully. The seminar will focus on personal and professional development, teamwork, time management, and academic success strategies while introducing students to the unique opportunities and challenges of the ETM fields.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

ACAD207 - Seminar

Overview

Course Subject Code
ACAD

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACAD307 - Seminar

Overview

Course Subject Code
ACAD

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
12

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACAD407 - Seminar

Overview

Course Subject Code
ACAD

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
12

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC101 - Intro to Accounting

Overview

Course Subject Code
ACC

Course Number
101

Course Title
Intro to Accounting

Department
Management

Course Description
The principles of elementary accounting systems for small businesses.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC107 - Seminar

Overview

Course Subject Code
ACC

Course Number
107

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC205 - Computerized Accounting

Overview

Course Subject Code
ACC

Course Number
205

Course Title
Computerized Accounting

Department
Management

Course Description
Spreadsheet software used to solve accounting problems, demonstrate model-building techniques and data analytics. Integrated accounting software introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC207 - Seminar

Overview

Course Subject Code
ACC

Course Number
207

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC305 - Accounting Information Systems

Overview

Course Subject Code
ACC

Course Number
305

Course Title
Accounting Information Systems

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC307 - Seminar

Overview

Course Subject Code
ACC

Course Number
307

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC320 - Cost Accounting I

Overview

Course Subject Code
ACC

Course Number
320

Course Title
Cost Accounting I

Department
Management

Course Description
Cost accumulation systems including job order costing, process costing and activity-based costing will be explored. Techniques to control and evaluate operations including variance analysis based on flexible budgets and standard costs.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC321 - Cost Accounting II

Overview

Course Subject Code
ACC

Course Number
321

Course Title
Cost Accounting II

Department
Management

Course Description
Continuation of Cost Accounting I. Strategic planning and financial budgeting. Cost measurement, planning, control and performance evaluation and behavioral issues. The role or responsibility accounting for revenue, cost, contribution and profit centers will be investigated.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC325 - Finance

Overview

Course Subject Code
ACC

Course Number
325

Course Title
Finance

Department
Management

Course Description
Emphasis on working capital management, long-term finance, and capital structure.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC331 - Interm Accounting I

Overview

Course Subject Code
ACC

Course Number
331

Course Title
Interm Accounting I

Department
Management

Course Description
Financial accounting concepts, theory, and practices involving current asset accounts; practical application of theory to accounting problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC332 - Interm Accounting II

Overview

Course Subject Code
ACC

Course Number
332

Course Title
Interm Accounting II

Department
Management

Course Description
Accounting concepts, theory, and practices involving ownership equities, interpretation, analysis of financial statements, and correction of errors; practical application of theory to accounting problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC333 - Interm Accounting III

Overview

Course Subject Code
ACC

Course Number
333

Course Title
Interm Accounting III

Department
Management

Course Description
Accounting concepts, theory, and practices involving plant assets, intangible assets and liabilities; practical application of theory to accounting problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC407 - Seminar

Overview

Course Subject Code
ACC

Course Number
407

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC411 - Income Tax Procedures

Overview

Course Subject Code
ACC

Course Number
411

Course Title
Income Tax Procedures

Department
Management

Course Description
Federal and state income tax laws and regulations applicable to individuals and their businesses including computerized tax return preparation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC412 - Corporate Taxation

Overview

Course Subject Code
ACC

Course Number
412

Course Title
Corporate Taxation

Department
Management

Course Description
Federal tax law applicable to corporations, partnerships, and estates. Emphasis on tax research procedures, and locating and evaluating various sources of tax law.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC431 - Advanced Accounting I

Overview

Course Subject Code
ACC

Course Number
431

Course Title
Advanced Accounting I

Department
Management

Course Description
Comprehensive study of problems in partnership accounting, fund accounting, branch accounting, and governmental accounting.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC432 - Advanced Accounting II

Overview

Course Subject Code
ACC

Course Number
432

Course Title
Advanced Accounting II

Department
Management

Course Description
Analysis of problems facing small, medium, and large companies, with emphasis upon an integrated and concurrent decision making methodology applying economics, finance, accounting and tax theory.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC435 - Auditing

Overview

Course Subject Code
ACC

Course Number
435

Course Title
Auditing

Department
Management

Course Description
Introduction to auditing concepts and practices. Topics include professional standards, audit planning and procedures, ethical considerations, internal controls, professional responsibilities, the acquisition and evaluation of audit evidence, and report writing.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ACC496 - Senior Project

Overview

Course Subject Code
ACC

Course Number
496

Course Title
Senior Project

Department
Management

Course Description
Development and implementation of an accounting related project for the benefit of an external entity and the student. Projects will include a proposal, analysis, design, and implementation. An oral presentation and project documentation will be required at the completion of each course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR
Capstone Project COOP, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

ACC497 - Senior Project

Overview

Course Subject Code
ACC

Course Number
497

Course Title
Senior Project

Department
Management

Course Description
Development and implementation of an accounting related project for the benefit of an external entity and the student. Projects will include a proposal, analysis, design and implementation. An oral presentation and project documentation will be required at the completion of each course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR
Capstone Project COOP, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

AHED107 - Seminar

Overview

Course Subject Code
AHED

Course Number
107

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

AHED207 - Seminar

Overview

Course Subject Code
AHED

Course Number
207

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

AHED307 - Seminar

Overview

Course Subject Code
AHED

Course Number
307

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

AHED407 - Seminar

Overview

Course Subject Code
AHED

Course Number
407

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

AHED450 - Instructional Methods

Overview

Course Subject Code
AHED

Course Number
450

Course Title
Instructional Methods

Department
Dental Hygiene

Course Description
Students develop instructional content and an instructional plan for teaching topics for adult learners. Teaching methods, learning styles, student and instructor evaluation, and use of media will be discussed. Prerequisite: Admission to RCP or BDH degree completion program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

AHED451 - Instructional Experience

Overview

Course Subject Code
AHED

Course Number
451

Course Title
Instructional Experience

Department
Dental Hygiene

Course Description
Students create and structure their own instructional experience, participate in a clinical or laboratory setting as a supervising instructor, present a didactic unit using visual aids.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- AHED450 - Instructional Methods

OR

Earn a minimum grade (UG) of D in the following:
- DH450 - Instr Methods In DH (Inactive)

Additional Comments:

AHED460 - Fund of Distance Education

Overview

Course Subject Code
AHED

Course Number
460

Course Title
Fund of Distance Education

Department
Dental Hygiene

Course Description
Students learn the fundamentals of online teaching and learning. Lesson plan developed in AHED 450 will be finalized as an online module. Synchronous vs. asynchronous learning, instructional design and course management as it relates to online instruction will be discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- AHED450 - Instructional Methods

OR

Earn a minimum grade (UG) of D in the following:
- DH450 - Instr Methods In DH (Inactive)

Additional Comments:

ALH105 - Intro to Allied Health Proffes

Overview

Course Subject Code
ALH

Course Number
105

Course Title
Intro to Allied Health Proffes

Department
Natural Sciences

Course Description
This course provides the student with an overview of Allied Health Professions. It provides introductory educational preparation on information specific to health care services and reviews of careers in health care.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

ALH501 - Healthcare Leadership Orient.

Overview

Course Subject Code
ALH

Course Number
501

Course Title
Healthcare Leadership Orient.

Department
Health Sciences

Course Description
This course provides an orientation to the MS Healthcare Leadership Program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

ALH505 - IT and Health Informatics

Overview

Course Subject Code
ALH

Course Number
505

Course Title
IT and Health Informatics

Department
Health Sciences

Course Description
Students will get an introduction to information technology (IT) as it applies to healthcare and in learning IT tools for success in online education. Prerequisite: Admission to the MSAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

ALH506 - Healthcare Administration

Overview

Course Subject Code
ALH

Course Number
506

Course Title
Healthcare Administration

Department
Health Sciences

Course Description
This course provides an introduction to the roles, responsibilities and functions of administrators in healthcare and educational environments.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH507 - Seminar

Overview

Course Subject Code
ALH

Course Number
507

Course Title
Seminar

Department
Health Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
12

Lecture Hours
Operator
TO

Pre-Requisites

No Requirements

ALH508 - Medical Edu Theories & Methods

Overview

Course Subject Code
ALH

Course Number
508

Course Title
Medical Edu Theories & Methods

Department
Health Sciences

Course Description
Instructional methods for allied health educators. Emphasis on lesson plan design to meet learning style needs of adult learners. Learning objectives, active teaching strategies, traditional and non-traditional assessment, and evaluation are addressed for teaching in an on-campus or online environment.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Independent Study, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

ALH509 - Thesis/Capstone Research Hours

Overview

Course Subject Code
ALH

Course Number
509

Course Title
Thesis/Capstone Research Hours

Department
Health Sciences

Course Description
This course provides a structure for students working on their thesis or capstone project. *Note: this course is proposed to be taken multiple times to meet the 6 credit requirement for Thesis/Capstone Research Hours; i.e. 2-2-2.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course ALH575
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- ALH575 - Research Methods

Additional Comments:

ALH515 - Scientific Writing & Healcare

Overview

Course Subject Code
ALH

Course Number
515

Course Title
Scientific Writing & Healcare

Department
Health Sciences

Course Description
A large focus of this class is in reading and interpreting scholarly literature related to healthcare leadership. In addition, students will be learning to write using instructor led professional and scientific methods. Prerequisite: Admission to the MS MAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ALH525 - Interdiscipline HC Leadership

Overview

Course Subject Code
ALH

Course Number
525

Course Title
Interdiscipline HC Leadership

Department
Health Sciences

Course Description
This course introduces best practices in interdisciplinary leadership in healthcare. It includes practice working in teams on real world issues.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH535 - Quality Improv. in Healthcare

Overview

Course Subject Code
ALH

Course Number
535

Course Title
Quality Improv. in Healthcare

Department
Health Sciences

Course Description
This course focuses on assessing issues in a healthcare setting, implementing changes, and evaluating the impact of initiatives.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH545 - Healthcare Ethics and Policy

Overview

Course Subject Code
ALH

Course Number
545

Course Title
Healthcare Ethics and Policy

Department
Health Sciences

Course Description
Common real-life healthcare ethical cases will be presented and discussed in this class with a focus on the role of a healthcare leader in handling difficult ethical situations. Organizational as well as state and federal policy issues are discussed, as well as legal issues in healthcare.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH555 - Leadership Theory and Styles

Overview

Course Subject Code
ALH

Course Number
555

Course Title
Leadership Theory and Styles

Department
Health Sciences

Course Description
A wide range of scholarly leadership theories will be discussed, ranging from military leadership models to Gardiner's Servant Leadership Model. Students will self-assess to evaluate their own leadership and communication styles along with their own power and influence styles. These research based leadership theories will be applied to healthcare leadership and best practices. Prerequisite: Admission to MS MAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH565 - Population Health

Overview

Course Subject Code
ALH

Course Number
565

Course Title
Population Health

Department
Health Sciences

Course Description
Population health issues and needs will be discussed in all aspects particularly as it applied to healthcare leadership. Prerequisite: Admission to the MS MAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course ALH515
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- ALH515 - Scientific Writing & Healcare

Additional Comments:

ALH575 - Research Methods

Overview

Course Subject Code
ALH

Course Number
575

Course Title
Research Methods

Department
Health Sciences

Course Description
The various types of research methods will be discussed including qualitative, quantitative, and mixed methods. Students will design a research proposal with particular attention given to choosing an appropriate methodology.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

ALH585 - Healthcare Finance

Overview

Course Subject Code
ALH

Course Number
585

Course Title
Healthcare Finance

Department
Health Sciences

Course Description
Students will be introduced to best practices in healthcare finances including health care policies and funding sources. The emphasis will be to teach students how to incorporate successful financial models into their own healthcare organizations. Discussions will take place to

include the best practices in using political models and strategies related to demand and supply within healthcare settings. Prerequisite: Admission to MS MAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ALH595 - Curriculum Design for AH Prof

Overview

Course Subject Code
ALH

Course Number
595

Course Title
Curriculum Design for AH Prof

Department
Health Sciences

Course Description
Creating the best healthcare curriculum that ensures the best practices and student outcome will be emphasized. How to manage healthcare curriculum with consideration to needs assessment and program specific accreditation standards will be discussed. Prerequisite: Admission to the MS MAH program

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ALH599 - MS Thesis/Capstone & Defense

Overview

Course Subject Code
ALH

Course Number
599

Course Title
MS Thesis/Capstone & Defense

Department
Health Sciences

Course Description
In this course students continue to revise their thesis or capstone project, integrating feedback from committee members. Additionally, students design a presentation to be presented to the committee as part of their defense.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

ANTH101 - Intro to Physical Anthropology

Overview

Course Subject Code
ANTH

Course Number
101

Course Title
Intro to Physical Anthropology

Department
Humanities & Social Sciences

Course Description
An introduction to physical anthropology, emphasizing man's place in the animal kingdom, evolution of man, fossil hominid forms, Paleolithic cultures, and principles of genetics. Satisfies either a science elective or a social science elective.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed, Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ANTH102 - Intro to Archeology

Overview

Course Subject Code
ANTH

Course Number
102

Course Title
Intro to Archeology

Department
Humanities & Social Sciences

Course Description
Survey of the science of archeology. Covers the biological and social evolution of the human species with emphasis on the growth of human populations and social complexity. Relates site-specific evidence to theories of social change. Discusses field and laboratory methods of archeology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ANTH103 - Intro to Cultural Anthropology

Overview

Course Subject Code
ANTH

Course Number
103

Course Title
Intro to Cultural Anthropology

Department
Humanities & Social Sciences

Course Description
Culture, language, subsistence patterns, group formation, kinship, economic systems, political organizations, religion, and cultural change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ANTH107 - Seminar

Overview

Course Subject Code
ANTH

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ANTH207 - Seminar

Overview

Course Subject Code
ANTH

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ANTH307 - Seminar

Overview

Course Subject Code
ANTH

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ANTH335 - The Built Environment

Overview

Course Subject Code
ANTH

Course Number
335

Course Title
The Built Environment

Department
Humanities & Social Sciences

Course Description
An examination of the American built environment from historical to modern times and the role it plays in shaping American Society. The topics include city planning, architecture, transportation technologies, dam and bridge building, and urban sprawl.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

ANTH407 - Seminar

Overview

Course Subject Code
ANTH

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ANTH452 - Globalization

Overview

Course Subject Code
ANTH

Course Number
452

Course Title
Globalization

Department
Humanities & Social Sciences

Course Description
Addresses what globalization is and how it developed and spread. Benefits and harms of globalization in the areas of work, culture, warfare, national sovereignty, health, and food. Countervailing pressures from social movements will be examined.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART107 - Seminar

Overview

Course Subject Code
ART

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ART205 - Introduction to Watercolors

Overview

Course Subject Code
ART

Course Number
205

Course Title
Introduction to Watercolors

Department
Humanities & Social Sciences

Course Description
Introductory studio course in beginning watercolor painting. Students will learn a variety of watercolor techniques as well as elements of design and aesthetics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART207 - Seminar

Overview

Course Subject Code
ART

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ART215 - Design Arts and Aesthetics

Overview

Course Subject Code
ART

Course Number
215

Course Title
Design Arts and Aesthetics

Department
Humanities & Social Sciences

Course Description
Students learn how to think like designers through critical analysis of design principles, enabling them to differentiate between good and bad design as well as how to influence perception, increase appeal, and problem solve when designing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART220 - Basic Drawing

Overview

Course Subject Code
ART

Course Number
220

Course Title
Basic Drawing

Department
Humanities & Social Sciences

Course Description
Designed for the student who has an interest in exploring the field of pictorial representation but has had, for a variety of reasons, little opportunity to do so.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART226 - Digital Photography

Overview

Course Subject Code
ART

Course Number
226

Course Title
Digital Photography

Department
Humanities & Social Sciences

Course Description
Studio course in digital photography, studying and producing photographs. Focus on digital exposures, color, location, Photoshop techniques and issues in photography. Students must have the use of a digital SLR camera or a digital camera with manual settings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART282 - Intro to Acrylic Painting

Overview

Course Subject Code
ART

Course Number
282

Course Title
Intro to Acrylic Painting

Department
Humanities & Social Sciences

Course Description
Introductory studio course with emphasis on basic materials and techniques in acrylic painting.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ART307 - Seminar

Overview

Course Subject Code
ART

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ART315 - Design Thinking

Overview

Course Subject Code
ART

Course Number
315

Course Title
Design Thinking

Department
Humanities & Social Sciences

Course Description
Students learn how to collaborate and tackle complex problems through creative design strategies, and develop an ability to define the problem, increase empathy, ideate and pitch their idea. Junior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

ART407 - Seminar

Overview

Course Subject Code
ART

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BA101Z - Intro to Business

Overview

Course Subject Code
BA

Course Number
101Z

Course Title
Intro to Business

Department
Management

Course Description
Presents an integrated view of both established and entrepreneurial businesses by studying their common characteristics and processes in a global context. Introduces theory and develops basic skills in the areas of accounting, finance, management, and marketing, with an emphasis on social responsibility and ethical practices. Explores how businesses can create value for themselves and society by addressing environmental and social challenges.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

BA211Z - Principles of Financial Accoun

Overview

Course Subject Code
BA

Course Number
211Z

Course Title
Principles of Financial Accoun

Department
Management

Course Description
Imparts an understanding of the purpose of accounting, common financial statement items, and the principles of internal controls. Focuses on recording the impact of economic events on account balances using U.S. Generally Accepted Accounting Principles, and the creation and analysis of financial statements to aid in external decision making.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

BA212 - Prin of Accounting II

Overview

Course Subject Code
BA

Course Number
212

Course Title
Prin of Accounting II

Department
Management

Course Description
A continuation of BA 211Z with emphasis on corporate accounting.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

BA213Z - Princ of Managerial Accounting

Overview

Course Subject Code
BA

Course Number
213Z

Course Title
Princ of Managerial Accounting

Department
Management

Course Description
Builds an understanding of the role of managerial accounting in a business, focusing on the development and use of information to evaluate production costs and operational performance in support of short- and long-term organizational decision-making.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO101 - Intro to Cell Biology

Overview

Course Subject Code
BIO

Course Number
101

Course Title
Intro to Cell Biology

Department
Natural Sciences

Course Description
Introduction to cell biology, genetics, basic chemistry of living organisms, and the scientific method.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO102 - Diversity of Life

Overview

Course Subject Code
BIO

Course Number
102

Course Title
Diversity of Life

Department
Natural Sciences

Course Description
Evolution and phylogenetics among all major groups of living organisms, including bacteria, protists, fungi, plants and animals.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO103 - Intro to Human Anat & Phys

Overview

Course Subject Code
BIO

Course Number
103

Course Title
Intro to Human Anat & Phys

Department
Natural Sciences

Course Description
Basic human anatomy and physiology, including a survey of all major bodily systems. (Cannot be used for graduation credit by students who have taken BIO 231, BIO 232, and BIO 233).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO107 - Seminar

Overview

Course Subject Code
BIO

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO109 - Intro to Medical Sciences

Overview

Course Subject Code
BIO

Course Number
109

Course Title
Intro to Medical Sciences

Department
Natural Sciences

Course Description
Survey of medical and health-related occupations, including biomedical sciences. Discussion of health care structure, private and public entities, the research community, and trends in health education and practice.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
2

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO135 - Prep for Human A&P

Overview

Course Subject Code
BIO

Course Number
135

Course Title
Prep for Human A&P

Department
Natural Sciences

Course Description
Study techniques for a science course are explored using examples of Human Anatomy and Physiology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO200 - Medical Terminology

Overview

Course Subject Code
BIO

Course Number
200

Course Title
Medical Terminology

Department
Natural Sciences

Course Description
Basic structure of medical works including prefixes, suffixes, roots and combining forms. Correct spelling, pronunciation, and meaning of terms are stressed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO201 - Organismic Biology

Overview

Course Subject Code
BIO

Course Number
201

Course Title
Organismic Biology

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO205 - Nutrition

Overview

Course Subject Code
BIO

Course Number
205

Course Title
Nutrition

Department
Natural Sciences

Course Description
A study of the relationships of food and nutrition to health. An overview of the basic nutrition principles including the nutrients and how they function in the body, nutrient requirements, diet planning, and energy balance. Current topics and controversies are examined.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO207 - Seminar

Overview

Course Subject Code
BIO

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO209 - Current Research Tpc Med Sci I

Overview

Course Subject Code
BIO

Course Number
209

Course Title
Current Research Tpc Med Sci I

Department
Natural Sciences

Course Description
Introduces students to topics in medicine focusing on global health issues, infectious and chronic diseases. Projects in medical literature research, understanding scientific paper format, preparing technical presentations and public speaking. Prerequisite: Biology or Health Sciences major or instructor consent

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO211 - Principles of Biology

Overview

Course Subject Code
BIO

Course Number
211

Course Title
Principles of Biology

Department
Natural Sciences

Course Description
Principles of modern biology emphasizing form and function of multicellular plants, major invertebrate phyla, and general vertebrate morphology and physiology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO212 - Principles of Biology

Overview

Course Subject Code
BIO

Course Number
212

Course Title
Principles of Biology

Department
Natural Sciences

Course Description
Principles of modern biology emphasizing evolution, ecology, population genetics, and behavior of organisms.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO213 - Principles of Biology

Overview

Course Subject Code
BIO

Course Number
213

Course Title
Principles of Biology

Department
Natural Sciences

Course Description
Principles of modern biology emphasizing the biochemical basis for life processes, cell structure, and function. Molecular genetics, cell reproduction, metabolism, and form and function of microorganisms.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO216 - Biology of Companion Animals

Overview

Course Subject Code
BIO

Course Number
216

Course Title
Biology of Companion Animals

Department
Natural Sciences

Course Description
Covers many aspects of animal health and their impact on society. Discussions of care, anatomy, preventive medicine, common diseases and behavioral problems of dogs, cats, and other companion animals. Labs will include some field trips and pets in class.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO220 - Cardiovascular Physiology

Overview

Course Subject Code
BIO

Course Number
220

Course Title
Cardiovascular Physiology

Department
Medical Imaging Technology

Course Description
Application of principles of fluid dynamics to the human vascular system. Detailed considerations of cardiac function and its regulation, analysis of flow in arterial, venous and capillary systems, and integration of cardiovascular regulation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO221Z - Principles of Biology: Cells

Overview

Course Subject Code
BIO

Course Number
221Z

Course Title
Principles of Biology: Cells

Department
Natural Sciences

Course Description
Explores fundamental biological concepts and theories about the cellular and molecular basis of life including cell structure and function, metabolism, genetic basis of inheritance and how information flows from DNA to proteins, with a focus on the iterative process of science. Intended for science majors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

BIO222Z - Principles of Bio: Organisms

Overview

Course Subject Code
BIO

Course Number
222Z

Course Title
Principles of Bio: Organisms

Department
Natural Sciences

Course Description
Explores fundamental biological concepts and theories about the structure and function of diverse organisms (including plants and animals), evolution and development, transformation of energy and matter, and body systems at a multicellular organismal level. Intended for science majors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

BIO223Z - Principles of Bio: Ecology

Overview

Course Subject Code
BIO

Course Number
223Z

Course Title
Principles of Bio: Ecology

Department
Natural Sciences

Course Description
Explores the unity and diversity of life through evolutionary mechanisms and relationships, and adaptation
to the environment. Examines population, community, and ecosystem ecology. Intended for science majors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Laboratory, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

BIO225 - Riparian Assessment Methods

Overview

Course Subject Code
BIO

Course Number
225

Course Title
Riparian Assessment Methods

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

BIO226 - Intro to Wildlife Rehab

Overview

Course Subject Code
BIO

Course Number
226

Course Title
Intro to Wildlife Rehab

Department
Natural Sciences

Course Description
Principles of wildlife rehabilitation including state and federal laws, medical terminology, basic anatomy, natural history and diet, form and function, and euthanasia. Field captures, basic restraint, first aid, minimum housing requirements, and zoonotic diseases are also included.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO227 - Intro to Forensic Science

Overview

Course Subject Code
BIO

Course Number
227

Course Title
Intro to Forensic Science

Department
Natural Sciences

Course Description
An entry level course exploring the methodologies and procedures utilized by crime scene investigators and forensic laboratories. Emphasis on crime scene investigation, recognition, documentation, and collecting of physical evidence. Laboratory exercises provide hands-on opportunities supplementing lecture topics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO231 - Human Anatomy/Physiology I

Overview

Course Subject Code
BIO

Course Number
231

Course Title
Human Anatomy/Physiology I

Department
Natural Sciences

Course Description
Introduction to the systematic studies of human anatomy and physiology. Introduction to cytology and histology followed by the integumentary, skeletal, muscular and endocrine systems and the physiology of excitable tissues. The laboratory sessions emphasize human anatomy using models and human cadavers.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO232 - Human Anatomy/Physiology II

Overview

Course Subject Code
BIO

Course Number
232

Course Title
Human Anatomy/Physiology II

Department
Natural Sciences

Course Description
A continuation of the systematic study of human anatomy and physiology. The nervous, cardiovascular and immune systems are studied. The laboratory sessions emphasize human anatomy using models and human cadavers. Dissections and physiological experiments are conducted.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO233 - Human Anatomy/Physiology III

Overview

Course Subject Code
BIO

Course Number
233

Course Title
Human Anatomy/Physiology III

Department
Natural Sciences

Course Description
Conclusion of the sequence in human anatomy and physiology. Digestive, respiratory, renal and reproductive systems are examined. Metabolism, human genetics and development are also studied. Laboratory sessions emphasize physiological experiments and human anatomy using models and human cadavers.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO234 - Microbiology

Overview

Course Subject Code
BIO

Course Number
234

Course Title
Microbiology

Department
Natural Sciences

Course Description
Classification, morphology, reproduction, transmission, and control of micro-organisms causing disease in man. Laboratory practice in culturing methods, microscopic observation, and physical and chemical control.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO235 - Human Genetics

Overview

Course Subject Code
BIO

Course Number
235

Course Title
Human Genetics

Department
Natural Sciences

Course Description
Genetic concepts using human examples, including the molecular and cellular basis of inheritance, patterns of inheritance, basic pedigree analysis, mutation, single-gene and polygenic diseases, and an introduction to genetic biotechnology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO247 - Forensic Anthropology

Overview

Course Subject Code
BIO

Course Number
247

Course Title
Forensic Anthropology

Department
Natural Sciences

Course Description
The morphological characteristics unique to the human skeleton that are used in establishing population demographics will be discussed and demonstrated. The laboratories are designed as hands-on experience applying the methodologies as presented in the lecture session.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO255 - Sophomore Research Class

Overview

Course Subject Code
BIO

Course Number
255

Course Title
Sophomore Research Class

Department
Natural Sciences

Course Description
This research course is the first in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately finding funding for their research.This course for science majors requires submission of a written proposal for the research they will do based on critical evaluation of scientific literature. Students will also learn how scientists work (the scientific process), so that they can look at a problem objectively, and make relevant decisions concerning biological issues.Degree relevance: These courses are a(n) elective/ requirement, respectively for BHS or ENV.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO265 - Field Methods Environ Science

Overview

Course Subject Code
BIO

Course Number
265

Course Title
Field Methods Environ Science

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Laboratory, Lecture/Lab, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Pre-Requisites

No Requirements

BIO301 - Int Sutdy Exp Ecology/Sustn I

Overview

Course Subject Code
BIO

Course Number
301

Course Title
Int Sutdy Exp Ecology/Sustn I

Department
Natural Sciences

Course Description
In this course students will experience and learn about the ecology, culture, and history of Iceland and Scandinavia as well as economic, technological, and management advancements toward sustainability.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO302 - Inntl Study Exp Ecolo & Sustn

Overview

Course Subject Code
BIO

Course Number
302

Course Title
Inntl Study Exp Ecolo & Sustn

Department
Natural Sciences

Course Description
In this course students will experience and learn about the ecology, culture, and history of Iceland and Scandinavia as well as economic, technological, and management advancements toward sustainability.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO307 - Seminar

Overview

Course Subject Code
BIO

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
30

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
15

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO313 - Botany & Plant Taxonomy

Overview

Course Subject Code
BIO

Course Number
313

Course Title
Botany & Plant Taxonomy

Department
Natural Sciences

Course Description
Introduction to classification and identification of vascular plants, emphasizing major plant families in California and Oregon; field and herbarium techniques. Weekend field trips required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
6

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course BIO211
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- BIO211 - Principles of Biology

Additional Comments:

A minimum grade of 'D' in Course BIO212
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- BIO212 - Principles of Biology

Additional Comments:

BIO326 - Parasitology

Overview

Course Subject Code
BIO

Course Number
326

Course Title
Parasitology

Department
Natural Sciences

Course Description
Parasitic infections of humans and animals (especially by protozoa and helminths). The course will cover parasite taxonomy, life cycles, epidemiology, clinical features, laboratory diagnosis, treatment and prevention. Students will practice various diagnostic techniques in the laboratory.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

BIO331 - Human Anatomy/Physiology I

Overview

Course Subject Code
BIO

Course Number
331

Course Title
Human Anatomy/Physiology I

Department
Natural Sciences

Course Description
An in-depth systematic study of human anatomy and physiology of the integumentary, skeletal, and muscular systems. Laboratories include histology, examination of human bones, cadaver dissection, computer-aided physiology studies and other hands-on activities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO332 - Human Anatomy/Physiology II

Overview

Course Subject Code
BIO

Course Number
332

Course Title
Human Anatomy/Physiology II

Department
Natural Sciences

Course Description
An in-depth systematic study of human anatomy and physiology of nervous, endocrine and cardiovascular systems. Laboratories will include histology, cadaver dissection, computer-aided physiology studies, and other hands-on activities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO333 - Human Anatomy/Physiology III

Overview

Course Subject Code
BIO

Course Number
333

Course Title
Human Anatomy/Physiology III

Department
Natural Sciences

Course Description
An in-depth systematic study of human anatomy and physiology of the lymphatic, respiratory, digestive, urinary and reproductive systems and an overview of embryology. Laboratories will include histology, cadaver dissection, computer-aided physiology studies, and other hands-on activities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO335 - Cross-Sectional Anatomy

Overview

Course Subject Code
BIO

Course Number
335

Course Title
Cross-Sectional Anatomy

Department
Medical Imaging Technology

Course Description
Cross-sectional anatomy correlated with computer tomography, ultrasonography, and magnetic resonance imaging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO336 - Essentials of Pathophysiology

Overview

Course Subject Code
BIO

Course Number
336

Course Title
Essentials of Pathophysiology

Department
Natural Sciences

Course Description
Study of dynamic aspects of disease process with emphasis on abnormal physiology. Detailed discussion of cellular alterations, normal immunology, neoplasia, inflammation, and alterations of the respiratory and skeletal systems, and Diabetes Mellitus.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO337 - Aquatic Ecology

Overview

Course Subject Code
BIO

Course Number
337

Course Title
Aquatic Ecology

Department
Natural Sciences

Course Description
Lotic and lentic ecosystems, hydrologic principles, processes and patterns of development, abiotic-biotic interactions, aquatic organisms and trophic structures, nutrient cycles and eutrophication, effects of disturbance, bio-assessment techniques, management and restoration case studies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO341 - Medical Genetics

Overview

Course Subject Code
BIO

Course Number
341

Course Title
Medical Genetics

Department
Natural Sciences

Course Description
Principles of heredity, chromosome mechanisms and molecular genetics applied to disease processes in humans. Review of case histories of selected inherited disorders. Discussion of genetic intervention therapies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO342 - Cell Biology

Overview

Course Subject Code
BIO

Course Number
342

Course Title
Cell Biology

Department
Natural Sciences

Course Description
Organelle organization, protein sorting, cell signaling, cytoskeletal functions, cell division mechanics, and cell interactions in development and aging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO345 - Medical Microbiology

Overview

Course Subject Code
BIO

Course Number
345

Course Title
Medical Microbiology

Department
Natural Sciences

Course Description
Mechanisms of pathogenicity and virulence relating to disease-causing viruses, bacteria, fungi, and other microorganisms. Host-parasite relationships and immunology, microbial physiology and genetics. Laboratory procedures and identification of selected bacteria and parasites.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO346 - Pathophysiology I

Overview

Course Subject Code
BIO

Course Number
346

Course Title
Pathophysiology I

Department
Natural Sciences

Course Description
Study of the dynamic aspects of the disease process with emphasis on abnormal physiology. Detailed discussion of cellular alterations, normal and abnormal immunology, neoplasia, inflammation, arteriosclerosis, hypertension, cardiac and vascular diseases.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO347 - Pathophysiology II

Overview

Course Subject Code
BIO

Course Number
347

Course Title
Pathophysiology II

Department
Natural Sciences

Course Description
Study of the dynamic aspects of the disease process with emphasis on abnormal physiology. Detailed discussion of alterations of respiratory function, liver and digestive system, neurologic, urinary, musculoskeletal disorders, and Diabetes Mellitus.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO352 - Developmental Biology

Overview

Course Subject Code
BIO

Course Number
352

Course Title
Developmental Biology

Department
Natural Sciences

Course Description
This course will explore the developmental processes of selected invertebrate and vertebrate groups. The event of gametogenesis, fertilization, gastrulation, neurulation, and post-embryonic development will be discussed. The role of differential gene expression in developmental pathways will be covered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO355 - Junior Research Class

Overview

Course Subject Code
BIO

Course Number
355

Course Title
Junior Research Class

Department
Natural Sciences

Course Description
This research course is the second in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately finding funding for their research. In the first course they developed research and wrote a proposal. This upper division course will be focused on performing the research that was developed in the first course via the proposal. Students will continue to learn how scientists work (the scientific process), so that they can look at a problem objectively, and make relevant decisions concerning biological issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO357 - Intro to Neuroscience

Overview

Course Subject Code
BIO

Course Number
357

Course Title
Intro to Neuroscience

Department
Natural Sciences

Course Description
This is an introductory course covering the organization and function of the human nervous system to build a foundation of general knowledge in a neurobiology of such topics as sensory/motor systems, the brain and behaviors, the biological basis of brain development, and learning of memory.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO366 - Zoology

Overview

Course Subject Code
BIO

Course Number
366

Course Title
Zoology

Department
Natural Sciences

Course Description
Organismal and integrative approach to the study of animal functional morphology, ecological physiology, behavior and interactions, development and evolution.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO369 - Mammalogy

Overview

Course Subject Code
BIO

Course Number
369

Course Title
Mammalogy

Department
Natural Sciences

Course Description
This course examines the evolution, biogeography, systematics, anatomy, physiology, and ecology of mammals with an emphasis on species native to North America. Weekly laboratory sessions will focus on the identification, observation, and sampling of mammals in the field using techniques applicable to several professions including wildlife management and research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO375 - Cross Sectional Anatomy II

Overview

Course Subject Code
BIO

Course Number
375

Course Title
Cross Sectional Anatomy II

Department
Medical Imaging Technology

Course Description
Continuation of cross section anatomy not including in BIO 335. This course covers MR images of the joints of the wrist, elbow, shoulder, ankle, knee, hip, thorax, spine and arterial system from the arch of the aorta to the Circle of Willis, as demonstrated by MRA.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course BIO233
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- BIO233 - Human Anatomy/Physiology III

Additional Comments:

BIO377 - Wildlife Ecology & Management

Overview

Course Subject Code
BIO

Course Number
377

Course Title
Wildlife Ecology & Management

Department
Natural Sciences

Course Description
Fundamental concepts and applied methods in the study of wildlife populations. Focus on study design, habitat, and animal movements. Develop skills in wildlife data analysis, animal capture, marking and remote tracking.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO386 - Ornithology

Overview

Course Subject Code
BIO

Course Number
386

Course Title
Ornithology

Department
Natural Sciences

Course Description
Introduction to avian evolution, biology, ecology, and behavior with lab emphasis on the avian field studies and identification of birds in Oregon and Klamath Falls region and skills and concepts for careers in wildlife and natural resources.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO407 - Seminar

Overview

Course Subject Code
BIO

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO409 - Crnt Rsch Tpcs in Med Sci II

Overview

Course Subject Code
BIO

Course Number
409

Course Title
Crnt Rsch Tpcs in Med Sci II

Department
Natural Sciences

Course Description
A continuation of BIO 209 covering topics in medicine focusing on global health issues, infectious and chronic diseases. Projects in medical literature research, understanding scientific paper format, preparing technical papers and presentations, and public speaking.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO417 - Plant Ecology

Overview

Course Subject Code
BIO

Course Number
417

Course Title
Plant Ecology

Department
Natural Sciences

Course Description
Overview of plant ecology including physiology, populations, communities, and ecosystems. Some topics covered are unique to plants, such as photosynthesis, and other topics, not necessarily unique to plants, emphasize the distinctive ways that plants deal with their environments. Weekend field trip required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO426 - Evolutionary Biology

Overview

Course Subject Code
BIO

Course Number
426

Course Title
Evolutionary Biology

Department
Natural Sciences

Course Description
Principles of evolutionary science, including speciation, biogeography, biodiversity, population genetics, natural selection and coevolution.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO427 - Special Topics in Neuroscience

Overview

Course Subject Code
BIO

Course Number
427

Course Title
Special Topics in Neuroscience

Department
Natural Sciences

Course Description
This course provides graduate students with an opportunity to explore, in depth, a variety of contemporary topics in neuroscience. Lectures will present background material and address current problems in the area related to the topic. Students will read and discuss review articles and current literature on the topic. This course also consists of exciting anatomical dissections of the brain and spinal cord.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO428 - Fisheries

Overview

Course Subject Code
BIO

Course Number
428

Course Title
Fisheries

Department
Natural Sciences

Course Description
This course will provide an overview to the structure and functioning of freshwater and marine aquatic ecosystems, and acquaint students with the basic biology and field techniques required to successfully manage fish populations. In addition, this course will expose students to a number of challenges facing aquatic ecosystems, and will provide an opportunity to discuss activities, approaches and strategies that can

be used to solve these challenges. While many examples and scenarios discussed will be based on local/regional issues, the course will emphasize a global perspective to aquatic conservation issues and how regional differences in problems and solutions exist. Emphasis will be placed on the importance of using sound science to generate successful management strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO434 - Data Analysis Methods

Overview

Course Subject Code
BIO

Course Number
434

Course Title
Data Analysis Methods

Department
Natural Sciences

Course Description
Advanced concepts and methods of data analysis from field projects, data archives and other courses. Statistical hypothesis testing; analysis of variance; multi-variate, regression, spatial- and time-series; principle component analysis; data visualization and infographics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO435 - Exercise Physiology

Overview

Course Subject Code
BIO

Course Number
435

Course Title
Exercise Physiology

Department
Natural Sciences

Course Description
Physiological responses to single bouts of exercise and longer term training, considering resistance and aerobic exercise effects on metabolism, skeletal muscle, the cardiovascular system, and the respiratory system. Additional applications of exercise and training in performance and human health.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Pre-Requisites

No Requirements

BIO436 - Immunology

Overview

Course Subject Code
BIO

Course Number
436

Course Title
Immunology

Department
Natural Sciences

Course Description
Cellular and humoral immunology including innate immunity, acquired immunity, antibodies, anatomy of immune response, production of effectors, adversarial strategies during infection, immunodeficiency, and transplantation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO438 - Conservation Biology

Overview

Course Subject Code
BIO

Course Number
438

Course Title
Conservation Biology

Department
Natural Sciences

Course Description
Study of global patterns and threats to biodiversity. In-depth focus on ecosystem services, habitat fragmentation, design of conservation reserves, conservation funding and politics, and understanding and communicating of climate change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO441 - Genetic Engr & Gene Therapy

Overview

Course Subject Code
BIO

Course Number
441

Course Title
Genetic Engr & Gene Therapy

Department
Natural Sciences

Course Description
Current topics in genetic engineering and gene therapy, explored via selected readings from primary and secondary literature.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO442 - Biological Physics

Overview

Course Subject Code
BIO

Course Number
442

Course Title
Biological Physics

Department
Natural Sciences

Course Description
This course is an introduction to biological physics, or biophysics. In this course, we will use mathematical models to tackle this complexity. Throughout the course, we will learn by doing—by building and analyzing mathematical models, and by solving lots of problems with pencil, paper, and computer

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO443 - Cell Biology

Overview

Course Subject Code
BIO

Course Number
443

Course Title
Cell Biology

Department
Natural Sciences

Course Description
Organelle organization, protein sorting, cell signaling, cytoskeletal functions, cell division mechanics, and cell interactions in development and aging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO445 - Comparative Virology

Overview

Course Subject Code
BIO

Course Number
445

Course Title
Comparative Virology

Department
Natural Sciences

Course Description
This course will explore the viral domain, and compare strategies that different viruses employ during their “life” cycle. Learn about mechanisms of infection and transmission utilized by different families of human viruses, and how these compare to examples of bacteriophage, plant viruses and insect viruses. The emphasis will be on those “abnormal” aspects of the molecular and cellular biology of viruses, not necessarily the clinical presentation of disease.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO446 - Pathophysiology I

Overview

Course Subject Code
BIO

Course Number
446

Course Title
Pathophysiology I

Department
Natural Sciences

Course Description
Study of global patterns and threats to biodiversity. In-depth focus on ecosystem services, habitat fragmentation, design of conservation reserves, conservation funding and politics, and understanding and communicating of climate change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO447 - Pathophysiology II

Overview

Course Subject Code
BIO

Course Number
447

Course Title
Pathophysiology II

Department
Natural Sciences

Course Description
Study of the dynamic aspects of the disease process with emphasis on abnormal physiology. Detailed discussion of alterations of respiratory function, liver and digestive system, neurologic, urinary, musculoskeletal disorders, and Diabetes Mellitus.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO452 - Development Biology

Overview

Course Subject Code
BIO

Course Number
452

Course Title
Development Biology

Department
Natural Sciences

Course Description
This course will explore the developmental processes of selected invertebrate and vertebrate groups. The event of gametogenesis, fertilization, gastrulation, neurulation, and post-embryonic development will be discussed. The role of differential gene expression in developmental pathways will be covered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO454 - Environmental Health

Overview

Course Subject Code
BIO

Course Number
454

Course Title
Environmental Health

Department
Natural Sciences

Course Description
A multidisciplinary exploration of environmental health across scales from local to global including the history of public health and infrastructure and linkages between air and water quality, environmental psychology, environmental justice, epidemiology, toxicology, food production, waste, genetics, and climate change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO455 - Senior Research Class

Overview

Course Subject Code
BIO

Course Number
455

Course Title
Senior Research Class

Department
Natural Sciences

Course Description
This research course is the third in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research. In the second course they did the research and collected data. This upper division course will be focused on finishing data collection, data analysis and finally presenting and publishing the research.Students will continue to learn how scientists work (the scientific process), so that they can look at a problem objectively, and make relevant decisions concerning biological issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO457 - Intro to Neuroscience

Overview

Course Subject Code
BIO

Course Number
457

Course Title
Intro to Neuroscience

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

BIO461 - Human Cadaver Dissection

Overview

Course Subject Code
BIO

Course Number
461

Course Title
Human Cadaver Dissection

Department
Natural Sciences

Course Description
Study of human anatomy utilizing cadaver dissection. Attention will be given to three-dimensional relationships of structures, appreciation of textural differences, and development of palpation skills. Recognition of pathologic abnormalities and individual variations will be investigated.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO462 - Human Cadaver Dissection

Overview

Course Subject Code
BIO

Course Number
462

Course Title
Human Cadaver Dissection

Department
Natural Sciences

Course Description
Study of human anatomy utilizing cadaver dissection. Attention will be given to three-dimensional relationships of structures, appreciation of textural differences, and development of palpation skills. Recognition of pathologic abnormalities and individual variations will be investigated. Instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- BIO233 - Human Anatomy/Physiology III

OR

Earn a minimum grade (UG) of D in the following:
- BIO333 - Human Anatomy/Physiology III

Additional Comments:

BIO467 - BioMedical Devices

Overview

Course Subject Code
BIO

Course Number
467

Course Title
BioMedical Devices

Department
Natural Sciences

Course Description
Exploration of pathophysiology, design thinking and how they have been applied to restore bodily functions. Topics covered include the cardiovascular system, bones, brain, eyes, ears, and skin.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO495 - Research Project in Biology

Overview

Course Subject Code
BIO

Course Number
495

Course Title
Research Project in Biology

Department
Natural Sciences

Course Description
Supports student-initiated research projects in biological sciences. Topics and scope must be reviewed and accepted by a faculty advisor. May be repeated for up to nine total credits. Instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO501 - Intro to Graduate Studies

Overview

Course Subject Code
BIO

Course Number
501

Course Title
Intro to Graduate Studies

Department
Natural Sciences

Course Description
Effective sourcing, use, and interpretation of the literature. Scientific methodology, writing, and review of research ethics. Development of a research plan.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO507 - Seminar

Overview

Course Subject Code
BIO

Course Number
507

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
60

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
45

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO509 - Introduction to Biomedical Sci

Overview

Course Subject Code
BIO

Course Number
509

Course Title
Introduction to Biomedical Sci

Department
Natural Sciences

Course Description
An introduction to key topics in biomedical sciences. Topics and themes will be selected according to the expertise and interests of the students and faculty instructor. Typical topics include discussions of translational medicine, evidence-based clinical practices, US and global healthcare systems, US and global health disparities, biomedical informatics, biomedical ethics, professionalism and interview skills, test prep strategies, medical communication, and others.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO510 - Current Iss in Biomedical Sci

Overview

Course Subject Code
BIO

Course Number
510

Course Title
Current Iss in Biomedical Sci

Department
Natural Sciences

Course Description
Students will discuss weekly student and faculty speakers, primary literature, and Ted Talks. This course is designed to introduce students to a number of scientific research areas. In this course, students learn about current issues in science, critically evaluate primary literature and scientific presentations, and present research to their peers.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO511 - Foundations in Conservation

Overview

Course Subject Code
BIO

Course Number
511

Course Title
Foundations in Conservation

Department
Natural Sciences

Course Description
Fundamental ecological concepts in the conservation and management of natural resources, plant and animal population, and ecological processes. Reading, discussing and comprehension of primary literature and technical reports. Field experience in study design, sampling, and management techniques.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO512 - Current Iss in Natural Resourc

Overview

Course Subject Code
BIO

Course Number
512

Course Title
Current Iss in Natural Resourc

Department
Natural Sciences

Course Description
Students will discuss weekly student and faculty speakers, primary literature, and Ted Talks. This course is designed to introduce students to a number of scientific research areas. In this course, students learn about current issues in science, critically evaluate primary literature and scientific presentations, and present research to their peers.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
99

Pre-Requisites

No Requirements

BIO517 - Plant Ecology

Overview

Course Subject Code
BIO

Course Number
517

Course Title
Plant Ecology

Department
Natural Sciences

Course Description
Overview of plant ecology including physiology, populations, communities, and ecosystems. Some topics covered are unique to plants, such as photosynthesis, and other topics, not necessarily unique to plants, emphasize the distinctive ways that plants deal with their environments. Weekend field trip required.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO522 - Introduction to Neuroscience

Overview

Course Subject Code
BIO

Course Number
522

Course Title
Introduction to Neuroscience

Department
Natural Sciences

Course Description
Course covers the organization and function of the human nervous system with cutting edge of neuroscience. The goal of this course is to build a strong base of general knowledge in neurobiology of such topic as sensory and motor systems, the brain and behavior, the cellular and molecular basis of brain development, and learning and memory. Overview of plant ecology including physiology, populations, communities, and ecosystems. Some topics covered are unique to plants, such as photosynthesis, and other topics, not necessarily unique to plants, emphasize the distinctive ways that plants deal with their environments. Weekend field trip required.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours
Billing Hours
Min
3

Lecture Hours
Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO526 - Evolutionary Biology

Overview

Course Subject Code
BIO

Course Number
526

Course Title
Evolutionary Biology

Department
Natural Sciences

Course Description
Principles of evolutionary science, including speciation, biogeography, biodiversity, population genetics, natural selection and coevolution.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours
Credit Hours
Min
3

Contact Hours
Contact Hours
Min
3

Billing Hours
Billing Hours
Min
3

Lecture Hours
Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO527 - Special Topics in Neuroscience

Overview

Course Subject Code
BIO

Course Number
527

Course Title
Special Topics in Neuroscience

Department
Natural Sciences

Course Description
This course provides graduate students with an opportunity to explore, in depth, a variety of contemporary topics in neuroscience. Lectures will present background material and address current problems in the area related to the topic. Students will read and discuss review articles and current literature on the topic. This course also consists of exciting anatomical dissections of the brain and spinal cord.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO535 - Exercise Physiology

Overview

Course Subject Code
BIO

Course Number
535

Course Title
Exercise Physiology

Department
Natural Sciences

Course Description
Physiological response to single bouts of exercise and longer term training, considering resistance and aerobic exercise effects on metabolism, skeletal muscle, the cardiovascular system, and the respiratory system. Additional applications of exercise and training in performance and human health.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Other Hours

Other Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO536 - Immunology

Overview

Course Subject Code
BIO

Course Number
536

Course Title
Immunology

Department
Natural Sciences

Course Description
Cellular and humoral immunology including innate immunity, acquired immunity, antibodies, anatomy of immune response, production of effectors, adversarial strategies during infection, immunodeficiency, and transplantation.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO537 - Advanced Data Analysis II

Overview

Course Subject Code
BIO

Course Number
537

Course Title
Advanced Data Analysis II

Department
Natural Sciences

Course Description
Data analysis is an extremely crucial component of any scientific discipline, but proper data analysis in the environmental sciences is particularly vital. Scientific observations of the natural world are inherently fraught with complexity, variability, and a high degree of uncertainty. Consequently, effective statistical analyses must be applied with a thorough understanding of the pros and cons of each approach. This course aims to provide you with a broad overview of both traditional and modern statistical approaches commonly used to address the special needs of ecological data sets.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO538 - Conservation Biology

Overview

Course Subject Code
BIO

Course Number
538

Course Title
Conservation Biology

Department
Natural Sciences

Course Description
Study of global patterns and threats to biodiversity. In-depth focus on ecosystem services, habitat fragmentation, design of conservation reserves, conservation funding and politics, and understanding and communicating of climate change.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO541 - Genetic Enginring&Gene Therapy

Overview

Course Subject Code
BIO

Course Number
541

Course Title
Genetic Enginring&Gene Therapy

Department
Natural Sciences

Course Description
Current topics in genetic engineering and gene therapy, explored via selected readings from primary and secondary literature.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

BIO542 - Biological Physics

Overview

Course Subject Code
BIO

Course Number
542

Course Title
Biological Physics

Department
Natural Sciences

Course Description
This course is an introduction to biological physics, or biophysics. In this course, we will use mathematical models to tackle this complexity. Throughout the course, we will learn by doing—by building and analyzing mathematical models, and by solving lots of problems with pencil, paper, and computer.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO543 - Cell Biology

Overview

Course Subject Code
BIO

Course Number
543

Course Title
Cell Biology

Department
Natural Sciences

Course Description
A student entering this class will have the prerequisite of BIO 213 Principle of Biology, thus having been exposed the fundamental principles involving cell structure and function. This course will cover more in-depth topics involving: cell structure and function, protein sorting, cell signaling.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO545 - Comparative Virology

Overview

Course Subject Code
BIO

Course Number
545

Course Title
Comparative Virology

Department
Natural Sciences

Course Description
This course will explore the viral domain, and compare strategies that different viruses employ during their "life" cycle. Learn about mechanisms of infection and transmission utilized by different families of human viruses, and how these compare to examples of bacteriophage, plant viruses and insect viruses. The emphasis will be on those "abnormal" aspects of the molecular and cellular biology of viruses, not necessarily the clinical presentation of disease.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO546 - Pathophysiology I

Overview

Course Subject Code
BIO

Course Number
546

Course Title
Pathophysiology I

Department
Natural Sciences

Course Description
Study of the dynamic aspects of the disease process with emphasis on abnormal physiology. Detailed discussion of cellular alterations, normal and abnormal immunology, neoplasia, inflammation, arteriosclerosis, hypertension, cardiac and vascular diseases.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO547 - Pathophysiology II

Overview

Course Subject Code
BIO

Course Number
547

Course Title
Pathophysiology II

Department
Natural Sciences

Course Description
A study of the dynamic aspects of the disease process with emphasis on abnormal physiology.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours
Billing Hours
Min
3

Lecture Hours
Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO551 - Zoology

Overview

Course Subject Code
BIO

Course Number
551

Course Title
Zoology

Department
Natural Sciences

Course Description
Through coordinated lectures, laboratory exercises and student-led discussions, this course will examine the structure, embryology, phylogeny, and biogeographic distribution of animals.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours
Credit Hours
Min
4

Contact Hours
Contact Hours
Min
6

Billing Hours
Billing Hours
Min
4

Lecture Hours
Lecture Hours
Min
3

Lab Hours
Lab Hours Min
3

Number Of Repeats
3

BIO552 - Developmental Biology

Overview

Course Subject Code
BIO

Course Number
552

Course Title
Developmental Biology

Department
Natural Sciences

Course Description
This course will explore the developmental processes of selected invertebrate and vertebrate groups. The event of gametogenesis, fertilization, gastrulation, neurulation, and post-embryonic development will be discussed. The role of differential gene expression in developmental pathways will be covered.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO554 - Environmental Health

Overview

Course Subject Code
BIO

Course Number
554

Course Title
Environmental Health

Department
Natural Sciences

Course Description
A multidisciplinary exploration of environmental health across scales from local to global including the history of public health and infrastructure and linkages between air and water quality, environmental psychology, environmental justice, epidemiology, toxicology, food production, waste, genetics, and climate change.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO557 - Introduction to Neuroscience

Overview

Course Subject Code
BIO

Course Number
557

Course Title
Introduction to Neuroscience

Department
Natural Sciences

Course Description
Introduction to Neuroscience covers the organization and function of the human nervous system with cutting edge of neuroscience.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

BIO561 - Human Cadaver Dissection

Overview

Course Subject Code
BIO

Course Number
561

Course Title
Human Cadaver Dissection

Department
Natural Sciences

Course Description
Study of human anatomy utilizing cadaver dissection. Attention will be given to three-dimensional relationships of structures, appreciation of textural differences, and development of palpation skills. Recognition of pathologic abnormalities and individual variations will be investigated.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO562 - Human Cadaver Dissection

Overview

Course Subject Code
BIO

Course Number
562

Course Title
Human Cadaver Dissection

Department
Natural Sciences

Course Description
Study of human anatomy utilizing cadaver dissection. Attention will be given to three-dimensional relationships of structures, appreciation of textural differences, and development of palpation skills. Recognition of pathologic abnormalities and individual variations will be investigated.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO567 - Biomedical Devices

Overview

Course Subject Code
BIO

Course Number
567

Course Title
Biomedical Devices

Department
Natural Sciences

Course Description
Exploration of pathophysiology, design thinking and how they have been applied to restore bodily functions. Topics covered include the cardiovascular system, bones, brain, eyes, ears, and skin

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO585 - Ecoregional Studies

Overview

Course Subject Code
BIO

Course Number
585

Course Title
Ecoregional Studies

Department
Natural Sciences

Course Description
Ten-week exposure to various Ecoregional studies around the world, and Environmental Protection Agency, Bureau of Land Management, and Nature Conservancy involvement in and utilization of Ecoregional studies. These studies consider similar ecosystems spanning multiple Federal and state resource management agencies, nearby North American countries, and selected other countries. Their designation is meant to serve as a spatial framework for research, assessment, and monitoring of ecosystems and ecosystem components.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO595 - Graduate Research/Thesis

Overview

Course Subject Code
BIO

Course Number
595

Course Title
Graduate Research/Thesis

Department
Natural Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Instructional Methods
Hybrid

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO596 - Biomedical Capstone

Overview

Course Subject Code
BIO

Course Number
596

Course Title
Biomedical Capstone

Department
Natural Sciences

Course Description
A semi-independent or directed-study course where the student completes a final original research project for the MS degree in Biomedical Sciences. This capstone project culminates the MS program and helps you to transition into the role of an academic scholar as well as a professional in your field.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BIO597 - Internship/Shadowing

Overview

Course Subject Code
BIO

Course Number
597

Course Title
Internship/Shadowing

Department
Natural Sciences

Course Description
An internship or shadowing course provides students with a structured experience in an organization whereby they can apply the knowledge and skills acquired in the classroom and extend them to a professional work environment. The experience also provides the opportunity for the student to gain new career-oriented knowledge, skills, and perspectives in a relevant career field. The internship or shadowing experience provides the opportunity to master career-related competencies not available in the classroom setting as they assume the responsibilities of being an integral team member in a workplace in their chosen field.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS000 - Business General Elective

Overview

Course Subject Code
BUS

Course Number
000

Course Title
Business General Elective

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

BUS00U - Business Upper Elective

Overview

Course Subject Code
BUS

Course Number
00U

Course Title
Business Upper Elective

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

BUS107 - Seminar

Overview

Course Subject Code
BUS

Course Number
107

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS169Z - Data Analysis Using Microsoft

Overview

Course Subject Code
BUS

Course Number
169Z

Course Title
Data Analysis Using Microsoft

Department
Management

Course Description
Covers Microsoft Excel software skills necessary for evidence-based problem-solving, including workbook editing, formula creation, charting, and pivot tables. Emphasizes hands-on learning using Excel functions to perform data analysis to enhance decision-making.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

BUS207 - Seminar

Overview

Course Subject Code
BUS

Course Number
207

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS215 - Principles of Management

Overview

Course Subject Code
BUS

Course Number
215

Course Title
Principles of Management

Department
Management

Course Description
Introduction to the history of management. Emphasis on the management functions of planning, organizing, directing and controlling; existing and emerging management theories, social responsibilities and business ethics. (Cannot be taken for graduation credit by students who have taken BUS 304 or BUS 317.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS223 - Marketing I

Overview

Course Subject Code
BUS

Course Number
223

Course Title
Marketing I

Department
Management

Course Description
Principles that drive the integration of the marketing mix (product, price, place, promotion) to meet the needs and wants of consumer and business markets. Function of market research and the study of market opportunities to grow and sustain organizations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

BUS226 - Business Law

Overview

Course Subject Code
BUS

Course Number
226

Course Title
Business Law

Department
Management

Course Description
The fundamentals of business law: the structure of federal and state courts and agencies, their decision processes; the legal structure of modern business organizations including closely and publicly held corporations, partnerships, limited partnerships, nonprofit corporations, sole proprietorships and limited liability companies; contract law; Uniform Commercial Code; tort law and its implications for business; administration law; and criminal law as it applies to business and industry.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS226Z - Introduction to Business Law

Overview

Course Subject Code
BUS

Course Number
226Z

Course Title
Introduction to Business Law

Department
Management

Course Description
Provides a comprehensive overview of U.S. business law, including the legal system, contracts, torts, intellectual property, agency, employment, and business organization forms. Emphasizes practical legal knowledge and explores how laws impact business operations, with a focus on risk management, contract disputes, business formation, and compliance with government regulation. Introduces legal challenges in business through real cases and legal terminology.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

BUS256 - Graphic Design for Business

Overview

Course Subject Code
BUS

Course Number
256

Course Title
Graphic Design for Business

Department
Management

Course Description
Emphasis on effective content, structure, tone and visual format for both internal and external communication. Students will compose various commonly occurring business documents achieving effectiveness in design, organization, content, and style, applying current graphic design and visual-design principles.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

BUS304 - Engineering Management

Overview

Course Subject Code
BUS

Course Number
304

Course Title
Engineering Management

Department
Management

Course Description
The engineering management process. The unique aspects of managing "knowledge workers." The manager's role in planning, organizing, leading and controlling. Managing design and new products development, materials, and inventory. Organizational styles, structures, and policies. Human resource management for individuals and groups. (Cannot be taken for graduation credit by students who have taken BUS 215 or BUS 317.) Junior standing or instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS307 - Seminar

Overview

Course Subject Code
BUS

Course Number
307

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
16

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
16

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
16

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
16

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS308 - Prin of International Business

Overview

Course Subject Code
BUS

Course Number
308

Course Title
Prin of International Business

Department
Management

Course Description
Introduction to international business fundamentals in the areas of cultural, ethical, legal and economic environments, international financial tools and instruments, international trade theory, manufacturing strategies, international supply chain management, country selection, exchange rate mechanics and international human resource management.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS309 - Introduction to Tourism

Overview

Course Subject Code
BUS

Course Number
309

Course Title
Introduction to Tourism

Department
Management

Course Description
Introduction to tourism industry. Topics include major components of tourism, service suppliers, travel, transportation, accommodations, food and beverage, attractions, entertainment, destinations, and impacts of tourism on society.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS313 - Health Care Systems & Policy

Overview

Course Subject Code
BUS

Course Number
313

Course Title
Health Care Systems & Policy

Department
Management

Course Description
This course will explore the U.S. Health System focusing on its historical development, current configuration and possibly future direction. Included will be the study of health system development, key influencers, accessibility, financers, employers, government and insurers. Particular attention will be paid to the future direction of healthcare and what parts of the system are likely to change.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS314 - Intro to Innovation & Entr.

Overview

Course Subject Code
BUS

Course Number
314

Course Title
Intro to Innovation & Entr.

Department
Management

Course Description
Complete a full business plan with marketing, financial and operational plan for new business venture. Students will learn and apply fundamental strategic decisions for small business entrepreneurs in all facets of starting, operating and growing a business.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS315P - Principles of Management

Overview

Course Subject Code
BUS

Course Number
315P

Course Title
Principles of Management

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

BUS316 - Total Quality Health Care

Overview

Course Subject Code
BUS

Course Number
316

Course Title
Total Quality Health Care

Department
Management

Course Description
The health care quality management process, contemporary issues and trends involved with quality control, organization structures, policies, human factors and teamwork. Junior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS317 - Health Care Management

Overview

Course Subject Code
BUS

Course Number
317

Course Title
Health Care Management

Department
Management

Course Description
The health care manager's role in planning, organizing, leading, and controlling. Special emphasis on the unique and complex issues involved in health care management. Organizational structures. Strategic and operational planning. Health care finance and budgeting. The future of management. (Cannot be taken for graduation credit by students who have taken BUS 215 or BUS 304.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS318 - Marketing II

Overview

Course Subject Code
BUS

Course Number
318

Course Title
Marketing II

Department
Management

Course Description
Advanced study markets with a focus on the motivation and behavioral characteristics of consumers. Study and apply analytics, technology and data-driven decision making in the formation of a customer-centered marketing and marketing communication strategy.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS319 - Integrated Marketing Comm.

Overview

Course Subject Code
BUS

Course Number
319

Course Title
Integrated Marketing Comm.

Department
Management

Course Description
Develop an integrated cross-media strategy and creative message to reach the target audience and deliver the brand promise through an IMC campaign. Special emphasis on paid, owned and earned digital media and social media platforms and analytics.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS326 - Sales/Sales Management

Overview

Course Subject Code
BUS

Course Number
326

Course Title
Sales/Sales Management

Department
Management

Course Description
This course introduces the student to the fundamentals of sales management. Topics includes principles of selling, introduction to prospecting skills, application of pricing strategies and theory, pricing after sales service offering, developing a value proposition, sales/service territory identification and alignment to maximize total revenue opportunity and administration of sales personnel in diverse sales territories and developing sales programs.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS331 - Personal Finance

Overview

Course Subject Code
BUS

Course Number
331

Course Title
Personal Finance

Department
Management

Course Description
Introduction to the basic principles of personal financial planning and budgeting. Includes banking services, consumer credit, asset purchases, insurance, and the fundamentals of investments and retirement planning.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS335 - Innov. & Entrepreneurship II

Overview

Course Subject Code
BUS

Course Number
335

Course Title
Innov. & Entrepreneurship II

Department
Management

Course Description
Students will learn and apply strategic decision-making skills in the innovation and start-up of a new business or organization/venture. students will function in an interdisciplinary team or environment to complete a project/proposal to move from idea to development plan.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS337 - Prin of Health Care Marketing

Overview

Course Subject Code
BUS

Course Number
337

Course Title
Prin of Health Care Marketing

Department
Management

Course Description
Fundamentals of health care marketing covering strategy, planning process, assessment, marketing actions, branding and evaluation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS349 - Human Resource Management I

Overview

Course Subject Code
BUS

Course Number
349

Course Title
Human Resource Management I

Department
Management

Course Description
Principles, theories and applications of HR management in the areas of strategy, workforce planning, employment law, job analysis, recruitment, selection, training, performance management and international HRM.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS356 - Business Presentations

Overview

Course Subject Code
BUS

Course Number
356

Course Title
Business Presentations

Department
Management

Course Description
Design, preparation and delivery of effective business presentations. Emphasis on integration of skills in speech and digital communication software to deliver effective, informative and persuasive presentations in any business or organization.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
7

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
4

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS365P - Marketing Management

Overview

Course Subject Code
BUS

Course Number
365P

Course Title
Marketing Management

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS375 - Experience Business Abroad I

Overview

Course Subject Code
BUS

Course Number
375

Course Title
Experience Business Abroad I

Department
Management

Course Description
This course provides opportunities for students interested in study abroad. The course is open to all students interested in traveling as part of their educational experience, and provides opportunity to travel with faculty.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS390 - Applied Management Internship

Overview

Course Subject Code
BUS

Course Number
390

Course Title
Applied Management Internship

Department
Management

Course Description
This course provides credit for an approved internship related to the student's program. Students work in a supervised setting where they receive training to develop career related skills while applying college learned theory.Prerequisite: Instructor consent

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Pre-Requisites

No Requirements

BUS397 - Human Resource Management II

Overview

Course Subject Code
BUS

Course Number
397

Course Title
Human Resource Management II

Department
Management

Course Description
Principles, theories, and applications of HR management in the areas of compensation, benefits, safety, labor relations, employee rights and engagement.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS399 - Marketing Special Topics

Overview

Course Subject Code
BUS

Course Number
399

Course Title
Marketing Special Topics

Department
Management

Course Description
Concentrated areas of marketing will be taught on a rotating basis: business to business, hospitality and travel, entertainment and sports, high tech, direct marketing and public relations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS407 - Seminar

Overview

Course Subject Code
BUS

Course Number
407

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS414 - Marketing Research

Overview

Course Subject Code
BUS

Course Number
414

Course Title
Marketing Research

Department
Management

Course Description
Introduction to the research function as it applies to marketing. Research methodology, design, surveys, data collection, interpretation and recommendations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS420 - Applied Management Internship

Overview

Course Subject Code
BUS

Course Number
420

Course Title
Applied Management Internship

Department
Management

Course Description
This course provides credit for an approved internship related to the student's program. Students work in a supervised setting where they receive training to develop career related skills while applying college learned theory. This course can substitute for BUS 496. Prerequisites: Senior standing and approval from senior project advisor

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS434 - Global Marketing

Overview

Course Subject Code
BUS

Course Number
434

Course Title
Global Marketing

Department
Management

Course Description
Comprehensive study of global business issues that develop strategic visions for market entry in emerging and developed countries, analyzing financial and pricing considerations, evaluating strategies of export versus local manufacturing, developing a marketing program that demonstrates implementation of global business principles.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS435 - Marketing III

Overview

Course Subject Code
BUS

Course Number
435

Course Title
Marketing III

Department
Management

Course Description
Management marketing strategies within a marketing centric business or organization, including the development of new products and services in response to market demands. Development of collaborative strategies in distribution, pricing and product/service mixes for new products, services and line extensions.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS441 - Leadership I

Overview

Course Subject Code
BUS

Course Number
441

Course Title
Leadership I

Department
Management

Course Description
Role of managers and leaders within an organization. Recognizing styles, competencies and traits of a leader and strategic application within a working environment through case analysis and discussion, introduction and development of personal leadership skills.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS442 - Leadership II

Overview

Course Subject Code
BUS

Course Number
442

Course Title
Leadership II

Department
Management

Course Description
Leadership in developing and communicating vision/mission and values setting ethical standards. Leading and developing multi-levels of managers. Mentoring high potential managers and transformational leaders. Leadership during conflict, change and diversity. The role of the leader in organizational development.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS447 - Controversial Issues in Mgmt

Overview

Course Subject Code
BUS

Course Number
447

Course Title
Controversial Issues in Mgmt

Department
Management

Course Description
Examination of the many controversial issues in management such as social responsibility, whistle blowing, outsourcing, drug testing, Affirmative Action and so on. Students will study opposing views and arguments from a variety of viewpoints. Discussion and debate develops critical thinking skills. Junior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

BUS456 - Business Research Methods

Overview

Course Subject Code
BUS

Course Number
456

Course Title
Business Research Methods

Department
Management

Course Description
Research design, exploration, and proposals. Hypotheses formulation and testing. Data sources, collection and analysis. Survey design, sampling and census techniques. Library and on-line information retrieval sources. Effective search strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS457 - Business Research Methods II

Overview

Course Subject Code
BUS

Course Number
457

Course Title
Business Research Methods II

Department
Management

Course Description
Emphasizes quantitative elements of research methods including presenting and describing information, drawing conclusions about populations using sample information; and improving business processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS458 - Process Improvement

Overview

Course Subject Code
BUS

Course Number
458

Course Title
Process Improvement

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- IMGT445 - Project Management (Inactive)

OR

Complete ALL of the following Courses:
- MIS312 - Systems Analysis I

Additional Comments:

BUS458P - Process Improvement

Overview

Course Subject Code
BUS

Course Number
458P

Course Title
Process Improvement

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS467 - Service Management

Overview

Course Subject Code
BUS

Course Number
467

Course Title
Service Management

Department
Management

Course Description
The nature of service and service encounters, strategy, and competitiveness. Design of service systems. Facilities location, design, and layout. Service quality and continuous improvement.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS473 - Marketing Plan Development

Overview

Course Subject Code
BUS

Course Number
473

Course Title
Marketing Plan Development

Department
Management

Course Description
Development of an in-depth marketing plan for a local community business. All aspects of the plan will be covered in detail.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS475 - Experience Business Abroad II

Overview

Course Subject Code
BUS

Course Number
475

Course Title
Experience Business Abroad II

Department
Management

Course Description
This course provides students opportutnity study abroad as part of their senior projects. Students complete their projects with facutly assistance in international settings. The senior project course sequence provides students with personalized alternatives for senior projects.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS478 - Strategic Management

Overview

Course Subject Code
BUS

Course Number
478

Course Title
Strategic Management

Department
Management

Course Description
Comprehensive study and analysis of businesses and/or case studies. Evaluation of strategic and operational decision making. Performance analysis in areas of finance, marketing and social performance. Senior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

BUS480 - Capstone Experience

Overview

Course Subject Code
BUS

Course Number
480

Course Title
Capstone Experience

Department
Management

Course Description
Synthesize program concepts in applied, research, internship, or other project capstone experience. Demonstrate core business concepts, stakeholder collaboration, decision-support tools, research skills, delivering professional written report and presentation. Repeatable but cannot be taken simultaneously. One term only per internship site.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
99

Pre-Requisites

Simple Requisites

All of the following requirements
Type
Prerequisite

Fulfill ALL of the following requirements:

Enroll in the following Courses:
- BUS456 - Business Research Methods

AND

Enroll in the following Courses:
- MGT335 - Project Management

AND

Enroll in the following Courses:
- BUS457 - Business Research Methods II

Additional Comments:

BUS490 - Applied Management Internship

Overview

Course Subject Code
BUS

Course Number
490

Course Title
Applied Management Internship

Department
Management

Course Description
This course provides credit for an approved internship related to the student's program. Students work in a supervised setting where they receive training to develop career related skills while applying college learned theory.Prerequisite: Instructor consent

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR
Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Pre-Requisites

No Requirements

BUS495 - Senior Project Proposal

Overview

Course Subject Code
BUS

Course Number
495

Course Title
Senior Project Proposal

Department
Management

Course Description
Examination of senior project process and requirements. Definitions of a suitable senior project topic and preparation of a formal proposal. Topics dealing with client contact, task definition, privacy and confidentiality. Initial research, presentation of results.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS496 - Senior Project

Overview

Course Subject Code
BUS

Course Number
496

Course Title
Senior Project

Department
Management

Course Description
Students finalize project plan and complete data gathering and analysis portion of a project for a client or an independent research project. Topics include completing research, data gathering and analysis. Interim project report is written.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS497 - Senior Project

Overview

Course Subject Code
BUS

Course Number
497

Course Title
Senior Project

Department
Management

Course Description
Students complete project started in BUS 496 including preparing a detailed project report and delivering a final presentation. Periodic progress reports required. Instructor functions as a consultant.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
99

Pre-Requisites

No Requirements

BUS507 - Seminar

Overview

Course Subject Code
BUS

Course Number
507

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Seminar, Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

CE101 - Intro to Civil Engineering I

Overview

Course Subject Code
CE

Course Number
101

Course Title
Intro to Civil Engineering I

Department
Civil Engineering

Course Description
Introduces the student to civil engineering with a focus on academic success, professional development, ethics, communication, and creative problem-solving techniques, engineering tools, and design concepts. A team-based laboratory experience introduces students to multiple sub-disciplines of civil engineering.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

CE102 - Intro to Civil Engineering II

Overview

Course Subject Code
CE

Course Number
102

Course Title
Intro to Civil Engineering II

Department
Civil Engineering

Course Description
Students will be introduced to a civil engineering focused design process through a team-based design project. Emphases will be placed on project management, documentation, presentation, and problem-solving.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course CE101
Type
Prerequisite

Complete ALL of the following Courses:

- CE101 - Intro to Civil Engineering I

Additional Comments:

CE107 - Seminar

Overview

Course Subject Code
CE

Course Number
107

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE203 - Engineering Graphics

Overview

Course Subject Code
CE

Course Number
203

Course Title
Engineering Graphics

Department
Civil Engineering

Course Description
Graphical communication in civil engineering using computer-aided drafting and design software. Includes development of drawings related to civil engineering projects such as roads, subdivisions and buildings, development of scaled plots and reading of engineering drawings.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

CE205 - Computational Methods

Overview

Course Subject Code
CE

Course Number
205

Course Title
Computational Methods

Department
Civil Engineering

Course Description
Solve applied problems involving formulas, functions, summation and iteration using Excel and VBA. Use built-in functions and graphing capabilities.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

CE207 - Seminar

Overview

Course Subject Code
CE

Course Number
207

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE211 - CE Mechanics: Statics

Overview

Course Subject Code
CE

Course Number
211

Course Title
CE Mechanics: Statics

Department
Civil Engineering

Course Description
Fundamental principles of mechanics of rigid bodies that don't experience an acceleration. Topics include analysis of external forces and reactions, internal forces and moments, rigid body equilibrium, and centroids & moments of inertia.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of C in the following:
- PHY201 - General Physics

OR

Earn a minimum grade (UG) of C in the following:
- PHY221 - General Physics w/Calculus

Additional Comments:

Enrolled in Course MATH252
Type
Prerequisite

Enroll in the following Courses:
- MATH252 - Integral Calculus

Additional Comments:

CE213 - CE Mechanics:Strength Material

Overview

Course Subject Code
CE

Course Number
213

Course Title
CE Mechanics:Strength Material

Department
Civil Engineering

Course Description
Internal stresses, and deformations of structural members and systems subjected to forces. Analysis of determinate and indeterminate systems with different geometries and material properties. Stability considerations

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

CE222 - Civil Engineering Materials

Overview

Course Subject Code
CE

Course Number
222

Course Title
Civil Engineering Materials

Department
Civil Engineering

Course Description
Study of the engineering properties of soil as well as portland cement and asphaltic concretes. Field and laboratory testing methods for classifying soil. Mix design of concretes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'C' in Course ENGR102

Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- ENGR102 - Intro to Engineering II

Additional Comments:

A minimum grade of 'C' in Course MATH111Z
Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- MATH111Z - Precalculus I: Functions

Additional Comments:

CE307 - Seminar

Overview

Course Subject Code
CE

Course Number
307

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE308 - Princ of Professional Practice

Overview

Course Subject Code
CE

Course Number
308

Course Title
Princ of Professional Practice

Department
Civil Engineering

Course Description
Civil engineering professional practice topics including project acquisition, development, management and delivery. Business in civil engineering including ethics, economics, leadership, communication and legal matters. Current and emerging trends in practice.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE311 - Intro to Geotechnical Engr

Overview

Course Subject Code
CE

Course Number
311

Course Title
Intro to Geotechnical Engr

Department
Civil Engineering

Course Description
Soil permeability, seepage, filters, effective stress, consolidation, settlement, shear strength, slope stability, stresses in soils, and stresses under loaded areas. Includes laboratory testing.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
5

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
7

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
5

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
4

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE312 - Earth Pressures & Foundations

Overview

Course Subject Code
CE

Course Number
312

Course Title
Earth Pressures & Foundations

Department
Civil Engineering

Course Description
Analysis and design of shallow footings, deep foundations include piles, caissons and earth retaining structures design. Use of computer applications for design of these structures.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE318 - CE Mechanics: Fluids

Overview

Course Subject Code
CE

Course Number
318

Course Title
CE Mechanics: Fluids

Department
Civil Engineering

Course Description
Fundamental properties of fluids, fluid statics and pressure variation, flow characterization, momentum and forces due to fluid motion, energy of fluids in motion, and flow in conduits. Emphasis on civil engineering applications of fluid mechanics principles.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'C' in Course CE211
Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- CE211 - CE Mechanics: Statics

Additional Comments:

A minimum grade of 'C' in Course MATH252
Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- MATH252 - Integral Calculus

Additional Comments:

CE331 - Structural Analysis

Overview

Course Subject Code
CE

Course Number
331

Course Title
Structural Analysis

Department
Civil Engineering

Course Description
Structural loads according to ASCE 7. Analysis of statically determinate trusses and frames. Shear and moment diagrams, deflections, and influence lines for statically determinate structures. Analysis of statically indeterminate structures by force and displacement methods. Software applications emphasized in labs.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE341 - Elementary Structural Design

Overview

Course Subject Code
CE

Course Number
341

Course Title
Elementary Structural Design

Department
Civil Engineering

Course Description
Fundamentals of structural element design: emphasis on structural steel, reinforced concrete, and timber beams and short columns as well as reinforced masonry lintels and walls due to gravity loads. Labs include construction, material and destructive testing, and software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE351 - Intro to Transportation Engr

Overview

Course Subject Code
CE

Course Number
351

Course Title
Intro to Transportation Engr

Department
Civil Engineering

Course Description
Introduction to the design, planning, operation, management and maintenance of transportation systems with a focus on the highway and railway modes. Principles of planning multi-modal transportation systems, layout of roadways, traffic flow modeling and capacity analyses.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE354 - Traffic Engineering

Overview

Course Subject Code
CE

Course Number
354

Course Title
Traffic Engineering

Department
Civil Engineering

Course Description
Principles of traffic engineering and operation, traffic engineering studies, signalized intersection design, traffic analysis software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE371 - Closed Conduit Design

Overview

Course Subject Code
CE

Course Number
371

Course Title
Closed Conduit Design

Department
Civil Engineering

Course Description
Population and factors influencing water supply demands, fire flows, peaking factors and storage requirements. Flows in pressure pipe systems, pipe networks analysis and design techniques. Estimation of wastewater flows including I/I considerations. Gravity-fed collection system design, construction and maintenance.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE374 - Hydrology

Overview

Course Subject Code
CE

Course Number
374

Course Title
Hydrology

Department
Civil Engineering

Course Description
Study of the hydrologic cycle, measurement of rainfall, runoff and streamflow. Curve fitting, hydrographic analysis, statistical analyses of extreme flows, flood routing and storage capacity. Runoff modeling and design of hydrologic structures and systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE401 - Civil Engineering Project I

Overview

Course Subject Code
CE

Course Number
401

Course Title
Civil Engineering Project I

Department
Civil Engineering

Course Description
First term of a two-term sequence integrating civil engineering design, group dynamics and technical communications. Students receive two credit hours in civil engineering (CE 401) and three credit hours in communication for general education (COM 401).

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE402 - Civil Engineering Project II

Overview

Course Subject Code
CE

Course Number
402

Course Title
Civil Engineering Project II

Department
Civil Engineering

Course Description
Second term of a two-term sequence integrating civil engineering design, group dynamics and technical communications. Students receive four credit hours in civil engineering (CE 402) and three credit hours in communication for general education (COM 402).

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE403 - FE Exam Preparation

Overview

Course Subject Code
CE

Course Number
403

Course Title
FE Exam Preparation

Department
Civil Engineering

Course Description
Lectures and problem work sessions to help civil engineering students successfully pass the fundamentals of engineering (FE) exam. Topics covered include mathematics, ethics, economics, statics, dynamics, solid mechanics, materials, fluid mechanics, hydraulics, hydrologic systems, structures, geotechnical, transportation, environmental, construction, and surveying.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE405 - Sustainability & Infrastruct

Overview

Course Subject Code
CE

Course Number
405

Course Title
Sustainability & Infrastruct

Department
Civil Engineering

Course Description
Integrating sustainability concepts and key social, economic and environmental issues and processes relevant to civil engineering. Sustainable design practices in each civil engineering sub-discipline will be studied and existing and proposed infrastructure projects will be evaluated.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE407 - Seminar

Overview

Course Subject Code
CE

Course Number
407

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE412 - Seismic Engineering

Overview

Course Subject Code
CE

Course Number
412

Course Title
Seismic Engineering

Department
Civil Engineering

Course Description
This course describes basic geotechnical earthquake engineering in terms of seismology, strong ground motions, dynamic soil properties, ground response analysis and liquefaction. This course also provides an introduction to the engineering practice of seismic design and analysis of buildings and non-building structures.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CE424 - Advanced Soil Mechanics

Overview

Course Subject Code
CE

Course Number
424

Course Title
Advanced Soil Mechanics

Department
Civil Engineering

Course Description
Evaluation of strength parameters and compressibility of soils; elastic analysis of stress and strain; techniques of forecasting foundation settlement; slope stability analysis using software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CE432 - Struc Loading & Lateral Forces

Overview

Course Subject Code
CE

Course Number
432

Course Title
Struc Loading & Lateral Forces

Department
Civil Engineering

Course Description
Gravity loads (dead, live, roof live, and snow) and lateral loads (wind and seismic) according to ASCE 7 and Oregon Structural Specialty Cod. Introduction and design of basic lateral force resisting systems and gravity elements with software applications as appropriate.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE433 - Structural Matrix Analysis

Overview

Course Subject Code
CE

Course Number
433

Course Title
Structural Matrix Analysis

Department
Civil Engineering

Course Description
Static analysis of determinate and indeterminate structures using the direct stiffness method with heavy emphasis on computer models and solutions. Students will design and develop their own structural analysis program.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE434 - Advanced Solid Mechanics

Overview

Course Subject Code
CE

Course Number
434

Course Title
Advanced Solid Mechanics

Department
Civil Engineering

Course Description
Three-dimensional stress and strain, failure theories, elasticity and plasticity, curved beams, beams on elastic foundations, un-symmetric bending and shear centers.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CE435 - Structural Dynamics

Overview

Course Subject Code
CE

Course Number
435

Course Title
Structural Dynamics

Department
Civil Engineering

Course Description
Analysis of single degree of freedom structural systems to harmonic and general loading. Free vibrating and forced vibration of multiple degree of freedom systems, modal superposition, earthquake engineering, current IBC methods.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE439 - Highway Bridge Rating

Overview

Course Subject Code
CE

Course Number
439

Course Title
Highway Bridge Rating

Department
Civil Engineering

Course Description
Introduction to bridge types, bridge design philosophies and bridge rating procedures. Load rating of short-span highway bridges using AASHTO provisions and ODOT procedures. Software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE442 - Adv Reinforced Concrete Design

Overview

Course Subject Code
CE

Course Number
442

Course Title
Adv Reinforced Concrete Design

Department
Civil Engineering

Course Description
Design, analysis, and detailing of reinforced concrete elements, including: T-beams, doubly-reinforced beams, continuous beams, shear walls, slender columns, slabs, footings, and moment frames. Seismic resistance and the development, anchorage, and splicing of steel reinforcement are introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE444 - Intermediate Steel Design

Overview

Course Subject Code
CE

Course Number
444

Course Title
Intermediate Steel Design

Department
Civil Engineering

Course Description
Design of structural steel tension members, frameworks, composite beams, and bolted and welded connections. Application of the AISC Steel Construction Manual structural stability provisions and software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE447 - Masonry Design

Overview

Course Subject Code
CE

Course Number
447

Course Title
Masonry Design

Department
Civil Engineering

Course Description
Analysis and design of masonry beams, walls and columns using computer solutions with emphasis on lateral design considerations. Prerequisite: Better and gravity elements with software applications as appropriate

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE448 - Timber Design

Overview

Course Subject Code
CE

Course Number
448

Course Title
Timber Design

Department
Civil Engineering

Course Description
Analysis and design of simple (determinate) timber beams, columns, trusses and connections using dimensioned lumber, plywood and laminated members, with an emphasis on lateral force design. Computer solutions introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE449 - Bridge Design

Overview

Course Subject Code
CE

Course Number
449

Course Title
Bridge Design

Department
Civil Engineering

Course Description
Design and analysis of short and medium-span highway bridge superstructures including reinforced concrete, slab bridges, steel deck girder bridges, and prestressed concrete bridges. Software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE450 - Transportation Structures

Overview

Course Subject Code
CE

Course Number
450

Course Title
Transportation Structures

Department
Civil Engineering

Course Description
Design and analysis of common transportation structures including culverts, sign structures, light poles, and railings according to current AASHTO provisions and ODOT procedures. Software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE455 - Bicycle & Pedestrian Transport

Overview

Course Subject Code
CE

Course Number
455

Course Title
Bicycle & Pedestrian Transport

Department
Civil Engineering

Course Description
Design and operational concepts in the engineering design of bicycle and pedestrian facilities in on-road and shared path locations. Specific topics include basic geometric design, intersection and signalization considerations, and amenities supporting non-motorized modes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE456 - Pavement Engineering

Overview

Course Subject Code
CE

Course Number
456

Course Title
Pavement Engineering

Department
Civil Engineering

Course Description
Hot mixed asphalt materials testing and mixture design. Methods of manufacture, transport, and placement of rigid and flexible pavements. Structural design of rigid and flexible pavements. Pavement rehabilitation and management.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

CE458 - Transportation Safety Analysis

Overview

Course Subject Code
CE

Course Number
458

Course Title
Transportation Safety Analysis

Department
Civil Engineering

Course Description
Safety concepts in highway engineering including highway design, operation, and maintenance, as well as human factors, statistical analysis, traffic control and public policy.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE481 - Environmental Engineering I

Overview

Course Subject Code
CE

Course Number
481

Course Title
Environmental Engineering I

Department
Civil Engineering

Course Description
Introduction to environmental engineering principles, fundamental concepts and supporting calculations. Physical, chemical and biological elements of the natural environment. Environmental impacts of anthropogenic activities. Control and pollution prevention technologies. Legal and regulatory framework governing environmental management.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE499 - Independent Studies

Overview

Course Subject Code
CE

Course Number
499

Course Title
Independent Studies

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE501 - Civil Engr Graduate Seminar

Overview

Course Subject Code
CE

Course Number
501

Course Title
Civil Engr Graduate Seminar

Department
Civil Engineering

Course Description
Civil Engineering graduate students will meet regularly with faculty members to share progress on their graduate project selection and report writing. Advisor consent required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, *Computer-Accessed Course, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

CE507 - Seminar

Overview

Course Subject Code
CE

Course Number
507

Course Title
Seminar

Department
Civil Engineering

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Seminar, Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
9

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
9

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
9

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE512 - Seismic Engineering

Overview

Course Subject Code
CE

Course Number
512

Course Title
Seismic Engineering

Department
Civil Engineering

Course Description
This course describes basic geotechnical earthquake engineering in terms of seismology, strong ground motions, dynamic soil properties, ground response analysis and liquefaction. This course also provides an introduction to the engineering practice of seismic design and analysis of buildings and non-building structures

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE524 - Advanced Soil Mechanics

Overview

Course Subject Code
CE

Course Number
524

Course Title
Advanced Soil Mechanics

Department
Civil Engineering

Course Description
Evaluation of strength parameters and compressibility of soils; elastic analysis of stress and strain; techniques of forecasting foundation settlement; slope stability analysis using software.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours Min
4

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CE533 - Structural Matrix Analysis

Overview

Course Subject Code
CE

Course Number
533

Course Title
Structural Matrix Analysis

Department
Civil Engineering

Course Description
Static analysis of determinate and indeterminate structures using the direct stiffness method with heavy emphasis on computer models and solutions. Students will design and develop their own structural analysis program.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE534 - Advanced Solid Mechanics

Overview

Course Subject Code
CE

Course Number
534

Course Title
Advanced Solid Mechanics

Department
Civil Engineering

Course Description
Three-dimensional stress and strain, failure theories, elasticity and plasticity, curved beams, beams on elastic foundations, unsymmetric bending and shear centers.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE535 - Structural Dynamics

Overview

Course Subject Code
CE

Course Number
535

Course Title
Structural Dynamics

Department
Civil Engineering

Course Description
Analysis of single degree of freedom structural systems to harmonic and general dynamic loading. Free vibrating and forced vibration of multiple degree of freedom systems, modal superposition, earthquake engineering, current IBC methods.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE539 - Highway Bridge Rating

Overview

Course Subject Code
CE

Course Number
539

Course Title
Highway Bridge Rating

Department
Civil Engineering

Course Description
Introduction to bridge types, bridge design philosophies and bridge rating procedures. Load rating of short-span highway bridges using AASHTO provisions and ODOT procedures. Software applications.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Laboratory, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE549 - Bridge Design

Overview

Course Subject Code
CE

Course Number
549

Course Title
Bridge Design

Department
Civil Engineering

Course Description
Design and analysis and short and medium-span highway bridge superstructures including reinforced concrete slab bridges, steel deck girder bridges, and prestressed concrete girder bridges. Software applications.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Laboratory, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE550 - Transportation Structures

Overview

Course Subject Code
CE

Course Number
550

Course Title
Transportation Structures

Department
Civil Engineering

Course Description
Design and analysis of common transportation structures including culverts, sign structures, light poles, and railings according to current AASHTO provisions and ODOT procedures. Software applications.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Laboratory, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE555 - Bicycle & Pedestrian Transport

Overview

Course Subject Code
CE

Course Number
555

Course Title
Bicycle & Pedestrian Transport

Department
Civil Engineering

Course Description
Design and operational concepts in the engineering design of bicycle and pedestrian facilities in on-road and shared path locations. Specific topics include basic geometric design, intersection and signalization considerations, and amenities supporting non-motorized modes.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CE556 - Advanced Pavement Design

Overview

Course Subject Code
CE

Course Number
556

Course Title
Advanced Pavement Design

Department
Civil Engineering

Course Description
This course covers advanced topics in the design and analysis of pavement materials and structures.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CE558 - Transportation Safety Analysis

Overview

Course Subject Code
CE

Course Number
558

Course Title
Transportation Safety Analysis

Department
Civil Engineering

Course Description
Safety concepts in highway engineering including highway design, operation, and maintenance, as well as human factors statistical analysis, traffic control and public policy.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CE590 - Civil Engineering Grad Project

Overview

Course Subject Code
CE

Course Number
590

Course Title
Civil Engineering Grad Project

Department
Civil Engineering

Course Description
Research and preparation pertaining to the master's project. Advisor consent required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
9

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE595 - Graduate Thesis

Overview

Course Subject Code
CE

Course Number
595

Course Title
Graduate Thesis

Department
Civil Engineering

Course Description
Research and preparation pertaining to the master's thesis.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR
Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CE599 - Independent Studies

Overview

Course Subject Code
CE

Course Number
599

Course Title
Independent Studies

Department
Civil Engineering

Course Description
Offers individualized study at an advanced level in areas of Civil Engineering not considered in other courses to meet special interests or program requirements. Students must complete term deliverables indicated by the instructor. Offered for variable credit, based on the student's accomplishments.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE101 - Intro to General Chemistry

Overview

Course Subject Code
CHE

Course Number
101

Course Title
Intro to General Chemistry

Department
Natural Sciences

Course Description
A brief presentation of introductory chemical concepts including atomic structure, the chemical equation, the behavior of gases, the chemistry of solution, and acid-base chemistry. For students with good knowledge of algebra.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE102 - Intro to Organic Chemistry

Overview

Course Subject Code
CHE

Course Number
102

Course Title
Intro to Organic Chemistry

Department
Natural Sciences

Course Description
A continuation of CHE 101 with emphasis on organic chemistry. The role of organic chemistry in life and industrial processes is discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE103 - Intro to Biochemistry

Overview

Course Subject Code
CHE

Course Number
103

Course Title
Intro to Biochemistry

Department
Natural Sciences

Course Description
A continuation of CHE 102 with emphasis on biochemistry. The organic chemistry of biochemicals including proteins, carbohydrates, and fats, as well as nucleic acids is discussed. Basic elements of metabolism are also explored.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE104 - Intro to General Chemistry Lab

Overview

Course Subject Code
CHE

Course Number
104

Course Title
Intro to General Chemistry Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 101.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE105 - Intro to Organic Chemistry Lab

Overview

Course Subject Code
CHE

Course Number
105

Course Title
Intro to Organic Chemistry Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 102.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE106 - Elementary Chemistry Lab

Overview

Course Subject Code
CHE

Course Number
106

Course Title
Elementary Chemistry Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 103.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE107 - Seminar

Overview

Course Subject Code
CHE

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE201 - General Chemistry I

Overview

Course Subject Code
CHE

Course Number
201

Course Title
General Chemistry I

Department
Natural Sciences

Course Description
Atomic structure, chemical compounds, chemical equations and reaction stoichiometry, reactions in aqueous solutions (including acid/base, redox, and precipitation reactions) gas laws and kinetic-molecular theory, and thermochemistry. Emphasis on engineering applications. High school chemistry is accepted as a prerequisite.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE202 - General Chemistry II

Overview

Course Subject Code
CHE

Course Number
202

Course Title
General Chemistry II

Department
Natural Sciences

Course Description
Electronic structure of atoms, periodic trends, chemical bonding, molecular geometry, intermolecular forces, phase transitions, and properties of solutions. Emphasis on engineering applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE203 - General Chemistry III

Overview

Course Subject Code
CHE

Course Number
203

Course Title
General Chemistry III

Department
Natural Sciences

Course Description
Chemical kinetics and equilibrium, applications of aqueous equilibria (including acid-base reactions, buffers, solubility, and complexation reactions), thermodynamics, entropy and free energy, electrochemistry, and nuclear chemistry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- CHE222 - General Chemistry II

OR

Fulfill ALL of the following requirements:

Earn a minimum grade (UG) of D in the following:
- CHE202 - General Chemistry II

AND

Earn a minimum grade (UG) of D in the following:
- CHE205 - General Chemistry II Lab

Additional Comments:

Enrolled in CHE206
Type
Corequisite

Enrolled in Course CHE206

Enroll in the following Courses:
- CHE206 - General Chemistry III Lab

Additional Comments:

CHE204 - General Chemistry I Lab

Overview

Course Subject Code
CHE

Course Number
204

Course Title
General Chemistry I Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 201.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE205 - General Chemistry II Lab

Overview

Course Subject Code
CHE

Course Number
205

Course Title
General Chemistry II Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 202.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE206 - General Chemistry III Lab

Overview

Course Subject Code
CHE

Course Number
206

Course Title
General Chemistry III Lab

Department
Natural Sciences

Course Description
Lab accompanying class content in CHE 203.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE207 - Seminar

Overview

Course Subject Code
CHE

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE210 - Clinical Pharmacology

Overview

Course Subject Code
CHE

Course Number
210

Course Title
Clinical Pharmacology

Department
Natural Sciences

Course Description
The drug action of selected pharmaceutical. Emphasis is placed on drug interactions, routes of administration, and effects on body systems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE221 - General Chemistry I

Overview

Course Subject Code
CHE

Course Number
221

Course Title
General Chemistry I

Department
Natural Sciences

Course Description
Atomic structure, chemical compounds, chemical equations and reaction stoichiometry, reactions in aqueous solution (including acid/base, redox, and precipitation reactions), gas laws and kinetic-molecular theory, and thermochemistry. Includes lab component. High school chemistry is accepted as a prerequisite.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
5

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
7

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
5

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
4

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE221Z - General Chemistry I

Overview

Course Subject Code
CHE

Course Number
221Z

Course Title
General Chemistry I

Department
Natural Sciences

Course Description
Atomic structure, chemical compounds, chemical equations and reaction stoichiometry, reactions in aqueous solution (including acid/base, redox, and precipitation reactions), gas laws and kinetic-molecular theory, and thermochemistry. Includes lab component.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

CHE222 - General Chemistry II

Overview

Course Subject Code
CHE

Course Number
222

Course Title
General Chemistry II

Department
Natural Sciences

Course Description
Electronic structure of atoms, periodic trends, chemical bonding, molecular geometry, intermolecular forces, phase transitions, and properties of solutions. Includes lab component.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE222Z - General Chemistry II

Overview

Course Subject Code
CHE

Course Number
222Z

Course Title
General Chemistry II

Department
Natural Sciences

Course Description
Explores and applies principles presented in CHE 221Z to the study of the solid, liquid, and
gaseous states of matter. Principles of stoichiometry, thermochemistry, kinetics, and foundational equilibrium are explored and
applied to the study of aqueous and gas-phase chemical reactions. CHE 222Z is a lecture course; CHE
228Z is the laboratory component.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- CHE221 - General Chemistry I

OR

Fulfill ALL of the following requirements:

Earn a minimum grade (UG) of D in the following:

- CHE221Z - General Chemistry I

AND

Earn a minimum grade (UG) of D in the following:
- CHE204 - General Chemistry I Lab

OR

Earn a minimum grade (UG) of D in the following:
- CHE227Z - General Chemistry I Lab

Additional Comments:

A minimum grade of 'D' in Course CHE201
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- CHE201 - General Chemistry I

Additional Comments:

CHE223 - General Chemistry III

Overview

Course Subject Code
CHE

Course Number
223

Course Title
General Chemistry III

Department
Natural Sciences

Course Description
Chemical kinetics and equilibrium, applications of aqueous equilibria (including acid-base reactions, buffers, solubility, and complexation reactions), thermodynamics, entropy and free energy, electro chemistry, and nuclear chemistry. Includes lab component.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE223Z - General Chemistry III

Overview

Course Subject Code
CHE

Course Number
223Z

Course Title
General Chemistry III

Department
Natural Sciences

Course Description
Builds upon the principles presented in CHE 222Z, explores thermodynamics and chemical
equilibrium, and applies them to the study of aqueous acid-base reactions, solubility, and electrochemistry. CHE
223Z is a lecture course; CHE 229Z is the laboratory component

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CHE227Z - General Chemistry I Lab

Overview

Course Subject Code
CHE

Course Number
227Z

Course Title
General Chemistry I Lab

Department
Natural Sciences

Course Description
Experiments correspond to the topics covered in CHE 221Z, including the fundamentals of chemical measurements, quantitative relationships in chemical analysis, and understanding atomic and molecular structure. CHE 227Z is the laboratory component; CHE 221Z is the lecture course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Enrolled in Course CHE221Z
Type
Prerequisite

Enroll in the following Courses:

- CHE221Z - General Chemistry I

Additional Comments:

CHE228Z - General Chemistry II Lab

Overview

Course Subject Code
CHE

Course Number
228Z

Course Title
General Chemistry II Lab

Department
Natural Sciences

Course Description
Experiments correspond to the topics covered in CHE 222Z, including the fundamentals intermolecular interactions, stoichiometric relationships, chemical equilibria, and their application to the synthesis, identification, and analysis of chemical compounds. CHE 228Z is the laboratory component; CHE 222Z is the lecture course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

CHE229Z - General Chemistry III Lab

Overview

Course Subject Code
CHE

Course Number
229Z

Course Title
General Chemistry III Lab

Department
Natural Sciences

Course Description
Experiments correspond to the topics covered in CHE 223Z, including the principles of chemical equilibria and their application to chemical analysis through the use of volumetric and electrochemical methods. CHE 229Z is the laboratory component; CHE 223Z is the lecture course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Enrolled in Course CHE223Z
Type
Prerequisite

Enroll in the following Courses:
- CHE223Z - General Chemistry III

Additional Comments:

CHE255 - Sophomore Research Class

Overview

Course Subject Code
CHE

Course Number
255

Course Title
Sophomore Research Class

Department
Natural Sciences

Course Description
This research course is the first in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE260 - Electrochemistry for RE Applic

Overview

Course Subject Code
CHE

Course Number
260

Course Title
Electrochemistry for RE Applic

Department
Natural Sciences

Course Description
Development of electrochemistry concepts, including thermodynamics, reaction kinetics, charge transport and mass transport. Topics are presented in the context of fuel cells, electrolysis, electroplating and batteries. Also discussed, the chemistry of hydrogen; its properties, production, storage and transportation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

All of the following requirements
Type
Prerequisite

Fulfill ALL of the following requirements:

Earn a minimum grade (UG) of D in the following:
- CHE222 - General Chemistry II

AND

Earn a minimum grade (UG) of D in the following:
- CHE205 - General Chemistry II Lab

Additional Comments:

A minimum grade of 'D' in Course CHE202
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- CHE202 - General Chemistry II

Additional Comments:

CHE305 - Nanoscience & Nanotech

Overview

Course Subject Code
CHE

Course Number
305

Course Title
Nanoscience & Nanotech

Department
Natural Sciences

Course Description
Survey of chemical and physical phenomena as applied to nanoscale materials, including metal and semiconductor nanoparticles and carbon nanostructures. Discussion of major synthesis and characterization techniques. Biological and engineering applications of nanoscale materials.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE307 - Seminar

Overview

Course Subject Code
CHE

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE315 - Environmental Analytical Chem.

Overview

Course Subject Code
CHE

Course Number
315

Course Title
Environmental Analytical Chem.

Department
Natural Sciences

Course Description
Mechanisms and toxicological effects of chemical reactions in water, soil, and air. Global and regional concerns about atmospheric and marine contaminants, thermal pollution, pesticide and heavy metal disposal, radioisotope properties, and effects of pollutants on living organisms. Organic nomenclature and selected biochemistry principles.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE325 - Soil Science

Overview

Course Subject Code
CHE

Course Number
325

Course Title
Soil Science

Department
Natural Sciences

Course Description
Nature, properties and distribution of soils and their relationship to the influence of vegetation, climate, landforms, and human activity. Understanding how soils form and how and why they vary horizontally across the landscape and vertically with depth. Emphasis upon North American patterns. Required field trips and labs.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE331 - Organic Chemistry I

Overview

Course Subject Code
CHE

Course Number
331

Course Title
Organic Chemistry I

Department
Natural Sciences

Course Description
The structures and reactions of carbon compounds with emphasis on thermodynamics, reaction pathways and spectroscopy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE332 - Organic Chemistry II

Overview

Course Subject Code
CHE

Course Number
332

Course Title
Organic Chemistry II

Department
Natural Sciences

Course Description
Organic stereochemistry with emphasis on biologically important molecules.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE333 - Organic Chemistry III

Overview

Course Subject Code
CHE

Course Number
333

Course Title
Organic Chemistry III

Department
Natural Sciences

Course Description
Free radical chemistry, pharmaceutical chemistry and the mechanistic aspects of enzymatic catalysis.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE335 - Bioorganic Chemistry

Overview

Course Subject Code
CHE

Course Number
335

Course Title
Bioorganic Chemistry

Department
Natural Sciences

Course Description
An overview of common organic chemistry mechanisms that occur in mammalian metabolism with a focus on molecular structure and reactivity of biological molecules and metabolites.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE341 - Instr Methods/Data Acqustn I

Overview

Course Subject Code
CHE

Course Number
341

Course Title
Instr Methods/Data Acqustn I

Department
Natural Sciences

Course Description
As introduction to the theory and practical applications of computer/ instrument interfacing and data acquisition techniques and software. Includes a survey of optical measurement techniques.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE342 - Instr Methods/Data Acqustn II

Overview

Course Subject Code
CHE

Course Number
342

Course Title
Instr Methods/Data Acqustn II

Department
Natural Sciences

Course Description
Principles and techniques of instrumental methods and data analysis. Methods appropriate for chemical analysis including spectroscopy, gas chromatography, potentiometric and flame photometric methods. Emphasis on sample preparation, instrumental response, sensitivity, and accuracy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE345 - Corrosion Chemistry

Overview

Course Subject Code
CHE

Course Number
345

Course Title
Corrosion Chemistry

Department
Natural Sciences

Course Description
A survey of the chemical kinetics and thermodynamics of corrosion, the various types of corrosion, inhibition of corrosion, and industrial applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE346 - Corrosion Chemistry Lab

Overview

Course Subject Code
CHE

Course Number
346

Course Title
Corrosion Chemistry Lab

Department
Natural Sciences

Course Description
Laboratory accompanying CHE 345. Providing practical experience with electrochemical equipment used to measure corrosion processes.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE355 - Junior Research Class

Overview

Course Subject Code
CHE

Course Number
355

Course Title
Junior Research Class

Department
Natural Sciences

Course Description
This research course is the second in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE360 - Clinical Pharmacology/Hlth Prf

Overview

Course Subject Code
CHE

Course Number
360

Course Title
Clinical Pharmacology/Hlth Prf

Department
Natural Sciences

Course Description
Principles of pharmacokinetics, pharmacodynamics and a survey of the major drug families developing familiarity with the most commonly prescribed drugs, their clinical application, mechanism of action and side effects.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE407 - Seminar

Overview

Course Subject Code
CHE

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
8

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
16

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
8

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
8

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
8

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CHE450 - Biochemistry I

Overview

Course Subject Code
CHE

Course Number
450

Course Title
Biochemistry I

Department
Natural Sciences

Course Description
Molecular and cellular biochemistry with emphasis on DNA structure, replication, the process and cellular regulation of RNA transcription, and analyzing and constructing DNA.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE451 - Biochemistry II

Overview

Course Subject Code
CHE

Course Number
451

Course Title
Biochemistry II

Department
Natural Sciences

Course Description
Molecular biochemistry with emphasis on protein conformation and function, mechanisms of enzyme action and control, and energy production via glycolysis.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE452 - Biochemistry III

Overview

Course Subject Code
CHE

Course Number
452

Course Title
Biochemistry III

Department
Natural Sciences

Course Description
Molecular and cellular biochemistry with emphasis on cell membranes, lipid metabolism, aerobic energy metabolism, anabolism, and the role of biochemistry in cellular signaling processes.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE455 - Senior Research Class

Overview

Course Subject Code
CHE

Course Number
455

Course Title
Senior Research Class

Department
Natural Sciences

Course Description
This research course is the third in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE465 - Fate/Transport of Pollutants

Overview

Course Subject Code
CHE

Course Number
465

Course Title
Fate/Transport of Pollutants

Department
Natural Sciences

Course Description
Application of principals learned in CHE 315. Mass Balance and the use of chemical equilibrium and kinetics to calculate pollutant transport in environmental compartments. Discussion and use of partitioning coefficients to determine fate of pollutants in water, soil, and air.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course CHE315
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- CHE315 - Environmental Analytical Chem.

Additional Comments:

CHE495 - Research Project in Chemistry

Overview

Course Subject Code
CHE

Course Number
495

Course Title
Research Project in Chemistry

Department
Natural Sciences

Course Description
Supports student-initiated research projects in biological sciences. Topics and scope must be reviewed and accepted by a faculty advisor. May be repeated for up to nine total credits. Instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
10

Pre-Requisites

No Requirements

CHE522 - Biochemistry III

Overview

Course Subject Code
CHE

Course Number
522

Course Title
Biochemistry III

Department
Natural Sciences

Course Description
Molecular and cellular biochemistry with emphasis on cell membranes, lipid metabolism, aerobic energy metabolism, anabolism, and the role of biochemistry in cellular signaling processes.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE550 - Biochemistry I

Overview

Course Subject Code
CHE

Course Number
550

Course Title
Biochemistry I

Department
Natural Sciences

Course Description
Molecular and cellular biochemistry with emphasis on DNA, RNA, regulation of DNA and RNA processes in cells, and on analyzing, constructing, and cloning DNA.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE551 - Biochemistry II

Overview

Course Subject Code
CHE

Course Number
551

Course Title
Biochemistry II

Department
Natural Sciences

Course Description
Molecular biochemistry with emphasis on protein conformation and function, mechanisms of enzyme action and control, and energy production via glycolysis.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE552 - Biochemistry III

Overview

Course Subject Code
CHE

Course Number
552

Course Title
Biochemistry III

Department
Natural Sciences

Course Description
Molecular and cellular biochemistry with emphasis on cell membranes, lipid metabolism, aerobic energy metabolism, anabolism, and the role of biochemistry in cellular signaling processes.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CHE565 - Fate & Transport of Pollutants

Overview

Course Subject Code
CHE

Course Number
565

Course Title
Fate & Transport of Pollutants

Department
Natural Sciences

Course Description
Mass balance. The use of equilibrium and chemical kinetics in the modeling of pollutant transport in water, soil, and air. Mixing zone analysis, the use of Darcy's law, flow nets, and the Gaussian Plume approximation. Discussion, development and use of selected modeling scenarios.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CIV107 - Seminar

Overview

Course Subject Code
CIV

Course Number
107

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar, Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CIV201 - Sustainable Civil Engr I

Overview

Course Subject Code
CIV

Course Number
201

Course Title
Sustainable Civil Engr I

Department
Civil Engineering

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CIV207 - Seminar

Overview

Course Subject Code
CIV

Course Number
207

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CIV307 - Seminar

Overview

Course Subject Code
CIV

Course Number
307

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, *Computer-Accessed Course, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Pre-Requisites

No Requirements

CIV358 - Project Management

Overview

Course Subject Code
CIV

Course Number
358

Course Title
Project Management

Department
Civil Engineering

Course Description
Basic project management principles and practices for engineering projects. Topics include basic management principles, delivery methods, bidding, procurement, costs, planning, scheduling, controlling, and allocation of resources. Gantt charts, CPM, and PERT discussed. Concepts applied using currently available computer software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

CIV407 - Seminar

Overview

Course Subject Code
CIV

Course Number
407

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CM101 - Intro to Construction Mgmt

Overview

Course Subject Code
CM

Course Number
101

Course Title
Intro to Construction Mgmt

Department
Management

Course Description
Introduction to general and heavy construction fields, methods & projects. This course is the first in a program designed to prepare the student for a professional career for management in a variety of construction projects.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM226 - Construction Law

Overview

Course Subject Code
CM

Course Number
226

Course Title
Construction Law

Department
Management

Course Description
Introduction to the American legal system, ethics and issues significant to business and construction industries. Teaches fundamentals of law governing organizational structures, administration law, contracts, Uniform Commercial Code; torts, zoning, liability, building code and criminal law in various industries.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM280 - Construction Internship

Overview

Course Subject Code
CM

Course Number
280

Course Title
Construction Internship

Department
Management

Course Description
This course provides credit for an approved internship in the construction management industry. Students work in a supervised setting where they receive training to develop career-related skills while applying college-learned theory.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
12

Billing Hours

Billing Hours
Min
4

Lab Hours

Lab Hours Min
12

Number Of Repeats
3

CM315 - Building Information Modeling

Overview

Course Subject Code
CM

Course Number
315

Course Title
Building Information Modeling

Department
Management

Course Description
This course covers Building Information Modeling (BIM), including its use and application for small- and large-scale building construction projects. Students will learn building terminology, the theory and evolution of BIM, and how to develop BIM models using Autodesk Revit.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course GIS134
Type
Prerequisite

Complete ALL of the following Courses:
- GIS134 - Geographic Info Systems

Additional Comments:

CM320 - Mech, Elec, & Plumb Systems

Overview

Course Subject Code
CM

Course Number
320

Course Title
Mech, Elec, & Plumb Systems

Department
Management

Course Description
This course introduces students to the basic principles of mechanical, electrical, and plumbing (MEP) systems common to construction projects. It involves basic science principles, basic design principles, and an understanding of the components and installation of the MEP systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM330 - Construct Planning/Scheduling

Overview

Course Subject Code
CM

Course Number
330

Course Title
Construct Planning/Scheduling

Department
Management

Course Description
Introduces students to the life cycle of a construction project from conception through completion and commissioning. Students are given an overview and practice in construction management theory, real estate development, pre-construction, sub-contractor coordination, procurement, project administration, project closeout, and commissioning.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM331 - Heavy Const Project Scheduling

Overview

Course Subject Code
CM

Course Number
331

Course Title
Heavy Const Project Scheduling

Department
Management

Course Description
This course introduces students to the life cycle of heavy construction projects from conception through completion and commissioning. Students are given an overview and practice in construction management theory, equipment timing, sub-contractor coordination, procurement, project administration, project closeout, and commissioning.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM335 - Construction Project Mgmt

Overview

Course Subject Code
CM

Course Number
335

Course Title
Construction Project Mgmt

Department
Management

Course Description
Advanced application of the Critical Path Method to organize and control projects in the construction field. Applications software is used to create and evaluate project networks and to develop reports. Students are prepared to develop and manage their own projects.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- CM101 - Intro to Construction Mgmt

OR

Complete ALL of the following Courses:
- BUS304 - Engineering Management

OR

Complete ALL of the following Courses:
- BUS317 - Health Care Management

OR

Complete ALL of the following Courses:
- BUS215 - Principles of Management

Additional Comments:

CM340 - Construct Budgeting & Takeoffs

Overview

Course Subject Code
CM

Course Number
340

Course Title
Construct Budgeting & Takeoffs

Department
Management

Course Description
Fundamentals of estimating materials and labor costs in construction. Deals with feasibility & risk analysis, price estimating, including transportation and handling costs, mark-up discount procedures, equipment cost, and labor rates. Utilizes case studies to introduce & test various bidding principles & mechanisms.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM341 - HC Cost Estimating & Control

Overview

Course Subject Code
CM

Course Number
341

Course Title
HC Cost Estimating & Control

Department
Management

Course Description
Rationale and technique of analysis of the work operations required for heavy construction work as distinct from residential and building construction. Format and preparation of competent heavy construction cost estimates with an emphasis on computer applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM350 - Cons Equip, Methods, Materials

Overview

Course Subject Code
CM

Course Number
350

Course Title
Cons Equip, Methods, Materials

Department
Management

Course Description
This course will introduce the principles of various construction methods and materials with a focus on the procedures for vertical, residential, and commercial development. Emphasis on various pieces of construction equipment, their respective operating and performance parameters, and costs. Exposure to different materials and forms of building.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM351 - HC Equip, Methods, Materials

Overview

Course Subject Code
CM

Course Number
351

Course Title
HC Equip, Methods, Materials

Department
Management

Course Description
Principles of horizontal construction, emphasizing methods and procedures to construct roads, dams, waterways, mines, pipelines. The course emphasizes the properties of heavy construction equipment, their performance parameters, methods for equipment maintenance throughout the project life cycle, and the estimating processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM380 - Heavy Construction Mgmt Intern

Overview

Course Subject Code
CM

Course Number
380

Course Title
Heavy Construction Mgmt Intern

Department
Management

Course Description
This course provides credit for an approved internship in the heavy construction management industry. Students work in a supervised setting where they receive training to develop career-related skills while applying college-learned theory. Meets requirements for a Senior Project course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
12

Billing Hours

Billing Hours
Min
4

Lab Hours

Lab Hours Min
12

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course CM280
Type
Prerequisite

Complete ALL of the following Courses:
- CM280 - Construction Internship

Additional Comments:

CM410 - Simplified Struct Analysis/Des

Overview

Course Subject Code
CM

Course Number
410

Course Title
Simplified Struct Analysis/Des

Department
Management

Course Description
Introduction to behavior and analysis of building structures. Structural loading, materials, and element types will be explored to understand the basic building blocks of buildings. Investigation and design of building structural systems for gravity, wind, and seismic loading.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- MATH112Z - Precalculus II: Trigonometry

OR

Complete ALL of the following Courses:
- MATH112 - Trigonometry (Inactive)

OR

Complete ALL of the following Courses:

- MATH251 - Differential Calculus

OR

Complete ALL of the following Courses:

- MATH251Z - Differential Calculus

OR

A minimum test score of '61' on Test OALEKS

Additional Comments:

CM450 - Building Energy Management

Overview

Course Subject Code
CM

Course Number
450

Course Title
Building Energy Management

Department
Management

Course Description
This course evaluates green building techniques, sustainable practices, and Lean Construction throughout the entire project life cycle. Students are introduced to the various requirements for green building rating systems and certifications. Content is provided to assist students in their self-study to take the LEED Green Associate exam.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM451 - CSR & Sustainable Construction

Overview

Course Subject Code
CM

Course Number
451

Course Title
CSR & Sustainable Construction

Department
Management

Course Description
This course examines sustainable practices & CSR via the EIA process throughout the project lifecycle. Students are introduced to carbon-free & net-neutral construction practices, ethical sourcing & sustainable construction lifecycles.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course CM101
Type
Prerequisite

Complete ALL of the following Courses:
- CM101 - Intro to Construction Mgmt

Additional Comments:

CM460 - Smart City Transformations

Overview

Course Subject Code
CM

Course Number
460

Course Title
Smart City Transformations

Department
Management

Course Description
Smart cities are designed to connect and integrate services and sectors; construction & utilities, energy, transportation governance and data security. Interconnected services and infrastructures using state-of-the-art advanced technologies that automate services, improve quality of life, and increase project efficiencies.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM461 - Infrastructure Security

Overview

Course Subject Code
CM

Course Number
461

Course Title
Infrastructure Security

Department
Management

Course Description
Topics covered include infrastructure security management, physical and logical security threats and policy requirements, disaster recovery, business continuity plans, change management scenarios, and approaching daily business security issues from an IT perspective.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM470 - Special Topics in CM

Overview

Course Subject Code
CM

Course Number
470

Course Title
Special Topics in CM

Department
Management

Course Description
This course will connect students' education with previous experience and post-graduation goals. Focused on professional development topics, and construction industry advances and changes. The course focuses on adapting to emerging practices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

CM471 - Infrastructure & Utility Mgmt

Overview

Course Subject Code
CM

Course Number
471

Course Title
Infrastructure & Utility Mgmt

Department
Management

Course Description
The course uses the systems and case study approaches to focus on improving infrastructure and utility organizations to deliver essential public services for transportation, water, energy, waste management, and building systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

CM480 - CM Senior Project

Overview

Course Subject Code
CM

Course Number
480

Course Title
CM Senior Project

Department
Management

Course Description
Synthesize program concepts in applied, research, internship, or other project capstone experience. Demonstrate core business concepts, stakeholder collaboration, decision-support tools, research skills, delivering professional written report and presentation. Repeatable but cannot be taken simultaneously. One term only per internship site.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

COM000 - Communication Elective

Overview

Course Subject Code
COM

Course Number
000

Course Title
Communication Elective

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
5

Pre-Requisites

No Requirements

COM100Z - Introduction to Communication

Overview

Course Subject Code
COM

Course Number
100Z

Course Title
Introduction to Communication

Department
Communication

Course Description
COMM 100z is a survey course offering an overview of the communication discipline that emphasizes the development of best communication practices in different contexts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

COM104 - Intro to Communication Studies

Overview

Course Subject Code
COM

Course Number
104

Course Title
Intro to Communication Studies

Department
Communication

Course Description
Introduces Communication Studies. Principles and applications developed in context of career exploration, interpersonal, group, organizational, and technical communication. Includes history and structure of communication field, career paths, research skills and role of technology. Required for COM majors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM105 - Intro to Communication Theory

Overview

Course Subject Code
COM

Course Number
105

Course Title
Intro to Communication Theory

Department
Communication

Course Description
Introduces basic theories and concepts in the Communication discipline. Acquaints students with major theories fundamental to communication research and to communication interactions including interpersonal, organizational, media and intercultural.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM106 - Introduction to Comm Research

Overview

Course Subject Code
COM

Course Number
106

Course Title
Introduction to Comm Research

Department
Communication

Course Description
Introduces research in the communication discipline. Students find and analyze quantitative, qualitative and critical research. Introduces communication research as a process composed of methods, data-gathering, analysis, conclusions.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM107 - Seminar

Overview

Course Subject Code
COM

Course Number
107

Course Title
Seminar

Department
Communication

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

COM109 - Intro to Communication Tech

Overview

Course Subject Code
COM

Course Number
109

Course Title
Intro to Communication Tech

Department
Communication

Course Description
Introduction to the use of communication technology. Emphasis on the use of various communication technologies including social media, instant messaging, and visual communication technologies. Features projects using technology to effectively communicate to various audiences.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

COM111Z - Public Speaking

Overview

Course Subject Code
COM

Course Number
111Z

Course Title
Public Speaking

Department
Communication

Course Description
COMM 111z emphasizes developing communication skills by examining and demonstrating how self-awareness, audience, content, and occasion influence the creation and delivery of speeches and presentations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
4

Pre-Requisites

No Requirements

COM115 - Intro to Mass Communication

Overview

Course Subject Code
COM

Course Number
115

Course Title
Intro to Mass Communication

Department
Communication

Course Description
Provides an introduction to mass media. Focuses on understanding how media operate with emphasis on contemporary social, economic, political, cultural and ethical issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM135 - Communication Software

Overview

Course Subject Code
COM

Course Number
135

Course Title
Communication Software

Department
Communication

Course Description
Techniques for coordinated use of office software, including word processing (style definitions, template creations, graphic use), data analysis (function use, custom functions, data importation) and presentation (master style definitions, visual effects, dynamic content creation) software, and cross-application functions.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
5

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
2

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

COM205 - Intercultural Communication

Overview

Course Subject Code
COM

Course Number
205

Course Title
Intercultural Communication

Department
Communication

Course Description
Introduces basic theories and concepts of intercultural communication. Builds understanding and skills enabling students to analyze intercultural interactions and develop and practice effective communication strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM207 - Seminar

Overview

Course Subject Code
COM

Course Number
207

Course Title
Seminar

Department
Communication

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

COM215 - Creativity in Comm

Overview

Course Subject Code
COM

Course Number
215

Course Title
Creativity in Comm

Department
Communication

Course Description
Define and learn how personal and group creativity can be enhanced. Study the lives of creative individuals in the arts, sciences, and industry. Individual and group exercises designed to enhance the creative process.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM216 - Essen of Grammar & Punctuation

Overview

Course Subject Code
COM

Course Number
216

Course Title
Essen of Grammar & Punctuation

Department
Communication

Course Description
Involves learning basic and advanced grammar and punctuation to provide a firm foundation for any type of writing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM218Z - Interpersonal Communication

Overview

Course Subject Code
COM

Course Number
218Z

Course Title
Interpersonal Communication

Department
Communication

Course Description
COMM218Z increases the knowledge and use of competent communication skills to better understand oneself, others, and the role of communication in interpersonal relationships.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

COM237 - Intro to Visual Communication

Overview

Course Subject Code
COM

Course Number
237

Course Title
Intro to Visual Communication

Department
Communication

Course Description
Introduces theory and rhetoric through several perspectives: personal, historical, technical, ethical, cultural, and critical. Emphasizes relationships between form/content, word/image, and societal role of visual communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM248 - Digital Media Production

Overview

Course Subject Code
COM

Course Number
248

Course Title
Digital Media Production

Department
Communication

Course Description
Study of the technical aspects of digital media design and production. Hands-on experience in creating and editing video and audio. Production of video and audio for specific contexts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

COM255 - Communication Ethics

Overview

Course Subject Code
COM

Course Number
255

Course Title
Communication Ethics

Department
Communication

Course Description
Examines typical communication situations involving ethics. Provides methodologies for critically evaluating ethical situations. Uses case approach with emphasis on application.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM256 - Public Relations

Overview

Course Subject Code
COM

Course Number
256

Course Title
Public Relations

Department
Communication

Course Description
Introduces history and practice of public relations; emphasizes practical accomplishment of public relations campaigns. Topics: internal/external audiences, brochures, press releases, internal documents, pitches, issue management, and project design, execution. Service learning course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM276 - Democracy and Media

Overview

Course Subject Code
COM

Course Number
276

Course Title
Democracy and Media

Department
Communication

Course Description
Provides introduction to ownership/structure of media, politics, objectives, and links to the corporate and national economy. Introduces project analysis through ownership, sourcing, flak, advertising, ideology filters.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM301 - Rhetorical Theory & Applicatn

Overview

Course Subject Code
COM

Course Number
301

Course Title
Rhetorical Theory & Applicatn

Department
Communication

Course Description
Introduces rhetorical theories and applications to personal, business and industrial settings. Focuses on evolution of rhetoric. Examines rhetorical effects on individual, group and mass communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM307 - Seminar

Overview

Course Subject Code
COM

Course Number
307

Course Title
Seminar

Department
Communication

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar, Lecture/Lab, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

COM309 - Communication Tech in Use

Overview

Course Subject Code
COM

Course Number
309

Course Title
Communication Tech in Use

Department
Communication

Course Description
Advanced use of communication technology. Emphasis on the use of communication technology to achieve specific communication goals. Features a large project using multiple communication technologies to reach specific audiences.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

COM320 - Advanced Intercultural Comm

Overview

Course Subject Code
COM

Course Number
320

Course Title
Advanced Intercultural Comm

Department
Communication

Course Description
Builds on theories from COM 205. Focuses on analyzing intercultural interactions in specific work contexts, for example health care, education, social services, business and technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM325 - Gender and Communication

Overview

Course Subject Code
COM

Course Number
325

Course Title
Gender and Communication

Department
Communication

Course Description
Introduces basic theories and concepts of culturally-derived gendered communication patterns and behaviors. Builds understanding and skills enabling students to analyze those patterns and behaviors in order to develop and practice effective communication strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM326 - Communication Research

Overview

Course Subject Code
COM

Course Number
326

Course Title
Communication Research

Department
Communication

Course Description
Introduction to research methods and design. Design of both quantitative and qualitative research. Emphasis on communication based methodologies: focus groups, directed interviews, and ethnomethodologies. Includes a research project and written and oral research reports.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM336 - Nonverbal Communication

Overview

Course Subject Code
COM

Course Number
336

Course Title
Nonverbal Communication

Department
Communication

Course Description
Nonlinguistic aspects of human communication. Examines the relationships between nonverbal and verbal communication behavior and nonverbal communication skill. Topics include space, distance, environment, touch, gesture, facial expression and gaze as communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM345 - Organization Comm I

Overview

Course Subject Code
COM

Course Number
345

Course Title
Organization Comm I

Department
Communication

Course Description
Studies communication in organizations, including message movement, exchange and interpretation, identification of variables, roles and patterns influencing communication in organizations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM346 - Health Communication

Overview

Course Subject Code
COM

Course Number
346

Course Title
Health Communication

Department
Communication

Course Description
Overview of interpersonal, social, and cultural issues in health communication, including family interaction, roles of patients and caregivers, communication in health organizations and the role of media.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM347 - Negotiation & Conflict Resol'n

Overview

Course Subject Code
COM

Course Number
347

Course Title
Negotiation & Conflict Resol'n

Department
Communication

Course Description
Examines theories and strategies for conduct of conflict and negotiation across contexts. Topics: destructive conflict cycles, confronting/managing conflict, social/psychological aspects, conflict analysis, causes, and promoting constructive conflict.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM348 - Facilitation

Overview

Course Subject Code
COM

Course Number
348

Course Title
Facilitation

Department
Communication

Course Description
Provides experience leading small groups through deliberative processes including participatory decision making and conflict resolution. Provides theoretical and practical understanding of facilitation focusing on building skills in group leadership.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM358 - Communication and the Law

Overview

Course Subject Code
COM

Course Number
358

Course Title
Communication and the Law

Department
Communication

Course Description
Issues involved in establishing legal parameters within which professional communicators work. Evolving interpretations of the first amendment, balancing conflicting first amendment claims, libel, limits of a free press, prior restraint, licensing and regulation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM365 - Electronic Comm & Society

Overview

Course Subject Code
COM

Course Number
365

Course Title
Electronic Comm & Society

Department
Communication

Course Description
Explores the Internet as a mediator of human communication and its effect on society. Topics include: social media, informatics, entertainment/workplace contexts, and the convergence of technology as a global village.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM401 - Civil Engineering Project I

Overview

Course Subject Code
COM

Course Number
401

Course Title
Civil Engineering Project I

Department
Communication

Course Description
First term of two-term sequence integrating civil engineering design, group dynamics and technical communications. Students receive three credit hours in civil engineering design (CE 401) and three credit hours in communication for general education (COM 401). Students will be introduced to a major civil engineering project, prepare a professional engineering proposal and function effectively in engineering design teams. Formal written proposal and oral presentation of the proposal are required. Prerequisite: Civil Engineering advisor consent

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

COM407 - Seminar

Overview

Course Subject Code
COM

Course Number
407

Course Title
Seminar

Department
Communication

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum, Seminar, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

COM420 - Externship

Overview

Course Subject Code
COM

Course Number
420

Course Title
Externship

Department
Communication

Course Description
(Hours to be arranged each term). Students work in applied settings in their emphasis under the supervision of an on-site mentor. Regular contact with extern advisor. Written externship reports required. Senior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Experiential, Independent Study, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

COM421 - Senior Project I

Overview

Course Subject Code
COM

Course Number
421

Course Title
Senior Project I

Department
Communication

Course Description
Allows students to initiate research on a significant capstone project in the communication field. Focuses on development of a proposal and presentation. Senior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

COM422 - Senior Project II

Overview

Course Subject Code
COM

Course Number
422

Course Title
Senior Project II

Department
Communication

Course Description
Continues work of COM 421, focusing on project research methodologies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

COM423 - Senior Project III

Overview

Course Subject Code
COM

Course Number
423

Course Title
Senior Project III

Department
Communication

Course Description
Focuses on completion of project, including final documentation and presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

COM424 - Capstone Course

Overview

Course Subject Code
COM

Course Number
424

Course Title
Capstone Course

Department
Communication

Course Description
Communication Studies majors complete a significant research project that bridges education with future profession or graduate school. Students collaboratively produce a project or portfolio reflecting strong critical thinking and application of communication theory and practice. Project topics vary by instructor. Senoir standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

COM425 - Mediation

Overview

Course Subject Code
COM

Course Number
425

Course Title
Mediation

Department
Communication

Course Description
Prepares students to mediate in public and private settings. Covers conflict management strategies, processes and issues including gender and cultural awareness.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM426 - Mediation Practicum

Overview

Course Subject Code
COM

Course Number
426

Course Title
Mediation Practicum

Department
Communication

Course Description
Mediation practice and observation with experienced mediators through the Klamath Mediation Center. Students will progress from observation, to co-mediation, and finally, mediation of real disputes. Builds on the theoretical insights and practice of COM 425.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

COM437 - Comm Training & Devpmt

Overview

Course Subject Code
COM

Course Number
437

Course Title
Comm Training & Devpmt

Department
Communication

Course Description
Prepares students to facilitate communication skills workshops and differentiate between organizational structure and communication training needs. Topics include: audience analysis, learning theory, curriculum design, presentation skills, classroom dynamics and assessment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM445 - Organiz'l Communication II

Overview

Course Subject Code
COM

Course Number
445

Course Title
Organiz'l Communication II

Department
Communication

Course Description
Examines organizational communication systems and the design of communication audit procedures. Synoptic reports of findings and recommendations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COM446 - Communication & Leadership

Overview

Course Subject Code
COM

Course Number
446

Course Title
Communication & Leadership

Department
Communication

Course Description
Explores the relationship between communication and leadership within organizations and the development and application of communication competencies associated with effective leadership.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

COMP290 - Applied AI Fundamentals

Overview

Course Subject Code
COMP

Course Number
290

Course Title
Applied AI Fundamentals

Department
Applied Computing & Geomatics

Course Description
This course provides an introduction to Artificial Intelligence (AI) with a focus on how to effectively use AI tools and techniques. Students will explore key AI concepts, including machine learning, natural language processing, and ethical considerations, while gaining hands-on experience with AI applications. The course emphasizes practical use cases, responsible AI usage, and strategies for leveraging AI in various domains.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course MIS285
Type
Prerequisite

Complete ALL of the following Courses:
- MIS285 - Python Programming

Additional Comments:

CSH201 - Human Dev. and Sleep Health

Overview

Course Subject Code
CSH

Course Number
201

Course Title
Human Dev. and Sleep Health

Department
Health Sciences

Course Description
Normal sleep architecture over the lifespan. Behavioral, physiological, and environmental patterns that contribute to healthy sleep.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CSH220 - Sleep Disord & Co-Morbid

Overview

Course Subject Code
CSH

Course Number
220

Course Title
Sleep Disord & Co-Morbid

Department
Health Sciences

Course Description
Pathophysiology, epidemiology, and clinical presentation of abnormal sleep. Understanding and recognition of major comorbidities associated with sleep disorders.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CSH255 - Oral Apls. for Sleep Apnea

Overview

Course Subject Code
CSH

Course Number
255

Course Title
Oral Apls. for Sleep Apnea

Department
Health Sciences

Course Description
Review all types of oral appliances and their appropriate applications and preparations for use with sleep apnea patients.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

CST000 - CST Elective

Overview

Course Subject Code
CST

Course Number
000

Course Title
CST Elective

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

CST107 - Seminar

Overview

Course Subject Code
CST

Course Number
107

Course Title
Seminar

Department
Computer Systems Eng Tech

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST110P - Visual BASIC Programm

Overview

Course Subject Code
CST

Course Number
110P

Course Title
Visual BASIC Programm

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST116 - C++ Programming I

Overview

Course Subject Code
CST

Course Number
116

Course Title
C++ Programming I

Department
Computer Systems Eng Tech

Course Description
Computer concepts and problem solving methods using C++ programming language. Topics include: algorithms, simple data types, conditional and iterative structures, function definition, structured programming and documentation. Cannot be taken for graduation credit if student has completed MIS 116.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST120 - Embedded C

Overview

Course Subject Code
CST

Course Number
120

Course Title
Embedded C

Department
Computer Systems Eng Tech

Course Description
C programming concepts for embedded platforms such as cross-compilation, storage classes, dynamic memory allocation, bitwise operations and masking. Embedded systems topics such as I/O ports, interrupts, timers and hardware interfacing will also be explored.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST126 - C++ Programming II

Overview

Course Subject Code
CST

Course Number
126

Course Title
C++ Programming II

Department
Computer Systems Eng Tech

Course Description
Solving complex problems using advanced features of the C++ language. Topics include function usage, pointer data type, dynamic memory allocation, string manipulation, and structure and union data types. Emphasis is on structured program design techniques. Cannot be taken for graduation credit if student has completed MIS 126.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST130 - Computer Organization

Overview

Course Subject Code
CST

Course Number
130

Course Title
Computer Organization

Department
Computer Systems Eng Tech

Course Description
Introduces computer elements, organization, and instruction sets. Computer arithmetic, ALU, Registers, Datapath, memory and Control unit functions. Course includes laboratory.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST131 - Computer Architecture

Overview

Course Subject Code
CST

Course Number
131

Course Title
Computer Architecture

Department
Computer Systems Eng Tech

Course Description
Continuation of CST 130. Topics include: main memory, cache, virtual memory, memory management, secondary storage, networks, operating system functions, and pipelining.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST133 - Digital Logic II

Overview

Course Subject Code
CST

Course Number
133

Course Title
Digital Logic II

Department
Computer Systems Eng Tech

Course Description
Introduction to sequential logic, latches, flip-flops, registers, counters, timers, finite state machines. Implementation in programmable logic devices using HDL. DC and AC parameters, timing analysis. Laboratory is integral to class.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST134 - Instrumentation

Overview

Course Subject Code
CST

Course Number
134

Course Title
Instrumentation

Department
Computer Systems Eng Tech

Course Description
Lecture/laboratory course that provides students experience in measuring, calibrating, and testing digital and analog systems. Uses various test equipment for test and measurement of digital and analog components.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST136 - OOP with C++

Overview

Course Subject Code
CST

Course Number
136

Course Title
OOP with C++

Department
Computer Systems Eng Tech

Course Description
A study of object oriented programming with C++. Beginning and intermediate concepts are covered including classes, objects, member functions, overloading, inheritance, polymorphism, templates, and virtual functions. This course prepares students with a strong C background for upper division coursework using C++. Cannot be taken for graduation credit if student has completed MIS 136.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST137 - COBOL Programming

Overview

Course Subject Code
CST

Course Number
137

Course Title
COBOL Programming

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CST151 - Advanced FORTRAN

Overview

Course Subject Code
CST

Course Number
151

Course Title
Advanced FORTRAN

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CST162 - Digital Logic I

Overview

Course Subject Code
CST

Course Number
162

Course Title
Digital Logic I

Department
Computer Systems Eng Tech

Course Description
Introduction to combinational logic. Includes introduction to number systems, Boolean algebra, logic gates, Muxes, Decoders, Adders, Subtracters. Logic design using a hardware description language. Laboratory integral to the class.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST204 - Intro to Microcontrollers

Overview

Course Subject Code
CST

Course Number
204

Course Title
Intro to Microcontrollers

Department
Computer Systems Eng Tech

Course Description
An introduction to microcontrollers (uC). Signals and data flow within simple systems. Introduction to instruction set, software development tools and I/O techniques, both programmed and interrupt-driven. Experiments using uC plus external circuits in applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST207 - Seminar

Overview

Course Subject Code
CST

Course Number
207

Course Title
Seminar

Department
Computer Systems Eng Tech

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST211 - Data Structures

Overview

Course Subject Code
CST

Course Number
211

Course Title
Data Structures

Department
Computer Systems Eng Tech

Course Description
Discussion of efficient methods of data representation such as stacks, queues, linked-lists, binary trees, B-trees. Emphasis is on data representation and algorithm analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST223 - Concepts of Programming Lang

Overview

Course Subject Code
CST

Course Number
223

Course Title
Concepts of Programming Lang

Department
Computer Systems Eng Tech

Course Description
Study of principles and fundamental concepts characterizing high-level programming languages, including history and survey of programming paradigms, syntax and semantic rules, data types, control flow and data abstraction.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST224P - Data Base I

Overview

Course Subject Code
CST

Course Number
224P

Course Title
Data Base I

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST229 - Introduction to Grammars

Overview

Course Subject Code
CST

Course Number
229

Course Title
Introduction to Grammars

Department
Computer Systems Eng Tech

Course Description
The concepts involving alphabet words and languages will be discussed. Related topics in automata and regular expression will be explored. Emphasis is on context free grammars, parse tree and parsing techniques.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST231 - Digital Systems Design I

Overview

Course Subject Code
CST

Course Number
231

Course Title
Digital Systems Design I

Department
Computer Systems Eng Tech

Course Description
Concepts, terminology and techniques in design and implementation of digital system components. Synchronous sequential logic design with emphasis on state machines. System design process including synthesis using Verilog HDL and implementation in programmable logic devices. Lab integral to course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST236 - Engr. for Quality Software

Overview

Course Subject Code
CST

Course Number
236

Course Title
Engr. for Quality Software

Department
Computer Systems Eng Tech

Course Description
This course teaches industry standard tools to enforce best practices to ensure quality software. Topics include project management, the Agile methodology, build management, and testing methodologies.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST238 - GUI Programming

Overview

Course Subject Code
CST

Course Number
238

Course Title
GUI Programming

Department
Computer Systems Eng Tech

Course Description
Introduction to HCI and GUI design in a rapid application development environment. Prerequisite material in delegation, events, and multithreaded programming included. Topics include: forms, containers, components, controls, modal/modeless windows, fixed/dynamic layouts, SDI/MDI applications, application internationalization, and data binding.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST240 - Linux Programming

Overview

Course Subject Code
CST

Course Number
240

Course Title
Linux Programming

Department
Computer Systems Eng Tech

Course Description
Students will study the structure of the Linux Operating System, including: file structure, input/output processing, commands and utilities, shell configuration, communications, and script programming languages. Students will write programs using processes, threads, and sockets.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST250 - Computer Assembly Lang

Overview

Course Subject Code
CST

Course Number
250

Course Title
Computer Assembly Lang

Department
Computer Systems Eng Tech

Course Description
Concepts of assembly language programming applied to a modern computer; data and instruction formats, address generation; data definition, storage allocation and program control statements; sub-routine library; CPU instruction set; control records; and writing of sub-routines.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST263 - Input/Output Devices II

Overview

Course Subject Code
CST

Course Number
263

Course Title
Input/Output Devices II

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CST264 - Input/Output Devices II Lab

Overview

Course Subject Code
CST

Course Number
264

Course Title
Input/Output Devices II Lab

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CST271 - Comp Peripheral Dev Lab

Overview

Course Subject Code
CST

Course Number
271

Course Title
Comp Peripheral Dev Lab

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST276 - Software Design Pattern

Overview

Course Subject Code
CST

Course Number
276

Course Title
Software Design Pattern

Department
Computer Systems Eng Tech

Course Description
Design patterns establish a common terminology allowing developers to use a common vocabulary and share a common viewpoint of the problem. Design patterns provide a common point of reference during the analysis and design phase of a project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST303 - Advanced COBOL Programming

Overview

Course Subject Code
CST

Course Number
303

Course Title
Advanced COBOL Programming

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CST307 - Seminar

Overview

Course Subject Code
CST

Course Number
307

Course Title
Seminar

Department
Computer Systems Eng Tech

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST312P - Computer Logic I

Overview

Course Subject Code
CST

Course Number
312P

Course Title
Computer Logic I

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST315 - Embedded Sensor Inter & I/O

Overview

Course Subject Code
CST

Course Number
315

Course Title
Embedded Sensor Inter & I/O

Department
Computer Systems Eng Tech

Course Description
Introduction to data acquisition systems, sampling theory, ADC, DAC, signal conditioning, filters, amplifiers, noise, transducers and sensors, including bio-sensors, sensor interfacing, smart sensors, and busses. Lab integral to course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST316 - JR Team-Based Proj Dev I

Overview

Course Subject Code
CST

Course Number
316

Course Title
JR Team-Based Proj Dev I

Department
Computer Systems Eng Tech

Course Description
In this three-term sequence, students will work in teams to gather requirements, model, analyze, develop and integrate an n-tiered architecture software product. Students will learn about project management, software development lifecycle tools and processes, and quality assurance processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST318 - Computer Graphics I

Overview

Course Subject Code
CST

Course Number
318

Course Title
Computer Graphics I

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CST320 - Compiler Methods

Overview

Course Subject Code
CST

Course Number
320

Course Title
Compiler Methods

Department
Computer Systems Eng Tech

Course Description
Basic concepts of compiler design and operation. Topics include lexical and syntactical analysis, parsing, translation, data flow analysis and code generation, and implementation of a small compiler.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST321 - Intro to Microprocessors

Overview

Course Subject Code
CST

Course Number
321

Course Title
Intro to Microprocessors

Department
Computer Systems Eng Tech

Course Description
Hardware and assembly level software needed to interface a microprocessor to I/O ports, memory and interrupt sources. Topics include bus controller design, timing analysis, programmed I/O and interrupts. Extensive lab provides experience with system design, test and debugging using the 80386DX microprocessor.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST324 - Database Systems and Design

Overview

Course Subject Code
CST

Course Number
324

Course Title
Database Systems and Design

Department
Computer Systems Eng Tech

Course Description
An overview of Data Base Management Systems including requirements analysis methodology for data base design, conceptual DB design methodology including formulation of entity-relationship models, review of query language characteristics, and a comparison of commonly available DBMS.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST325 - State Machine Design

Overview

Course Subject Code
CST

Course Number
325

Course Title
State Machine Design

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Pre-Requisites

No Requirements

CST326 - JR Team-Based Proj Dev II

Overview

Course Subject Code
CST

Course Number
326

Course Title
JR Team-Based Proj Dev II

Department
Computer Systems Eng Tech

Course Description
In this three term sequence, students will work in teams to gather requirements, model, analyze, develop and integrate an n-tiered architecture software product. Students will learn about project management, software development lifecycle tools and processes, and quality assurance processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST331 - Microproc Periph Interfacing

Overview

Course Subject Code
CST

Course Number
331

Course Title
Microproc Periph Interfacing

Department
Computer Systems Eng Tech

Course Description
Expansion of processor based systems through off chip parallel bus interfacing. Adding off chip I/O ports, memory and parallel I/O devices. I/O port expansion through serial interface. In depth interface timing analysis. Extensive lab provides continued experience with system design, test and debugging techniques.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST332 - Computer Logic III

Overview

Course Subject Code
CST

Course Number
332

Course Title
Computer Logic III

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST334 - Project Proposal

Overview

Course Subject Code
CST

Course Number
334

Course Title
Project Proposal

Department
Computer Systems Eng Tech

Course Description
Description of senior project; time management techniques; task assignment; development of in-depth senior project proposal and preparation of formal senior project. Includes use of PC-based planning.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

CST336 - JR Team-Based Proj Dev III

Overview

Course Subject Code
CST

Course Number
336

Course Title
JR Team-Based Proj Dev III

Department
Computer Systems Eng Tech

Course Description
In this three-term sequence, students will work in teams to gather requirements, model, analyze, develop and integrate an n-tiered architecture software product. Students will learn about project management, software development lifecycle tools and processes, and quality assurance processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST337 - Embedded System Architecture

Overview

Course Subject Code
CST

Course Number
337

Course Title
Embedded System Architecture

Department
Computer Systems Eng Tech

Course Description
Configuration, programming, testing, debugging of embedded systems. Serial interfaces including RS232, I2C and SPI. I/O methods including programmed I/O, interrupts and DMS. Interfacing issues related to timing and protocol. Impact of processor architect and I/O methods on system performance.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST340 - Advanced UNIX

Overview

Course Subject Code
CST

Course Number
340

Course Title
Advanced UNIX

Department
Computer Systems Eng Tech

Course Description
Advanced facets of the UNIX operating system will be explored. Topics include: interprocesses communication, programming, system administration. Students will use OIT computers operating under UNIX.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST342 - Data Acquisition

Overview

Course Subject Code
CST

Course Number
342

Course Title
Data Acquisition

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST344 - Interm Computer Arch

Overview

Course Subject Code
CST

Course Number
344

Course Title
Interm Computer Arch

Department
Computer Systems Eng Tech

Course Description
Register level design of a computer system, including the processor and memory structures. Cache and virtual memory. Includes analysis of both CISC (Complex Instruction Set Computer) and RISC (Reduced Instruction Set Computer) architectures.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST347 - Real Time Embedded Op Systems

Overview

Course Subject Code
CST

Course Number
347

Course Title
Real Time Embedded Op Systems

Department
Computer Systems Eng Tech

Course Description
OS Kernel Constructs and problem scaling, small scale environment specification, process, threads, fibers, synchronization primitives, small scale memory management, scheduling paradigms, real time scheduling, I/O and debugging. Lab integral to course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST351 - Digital Systems Design II

Overview

Course Subject Code
CST

Course Number
351

Course Title
Digital Systems Design II

Department
Computer Systems Eng Tech

Course Description
Continuation of Digital Systems Design I. Focus on timing, test benches, testing, and security in programmable logic devices. Laboratory includes analysis, design, synthesis, simulation and testing of complete digital systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST352 - Operating Systems

Overview

Course Subject Code
CST

Course Number
352

Course Title
Operating Systems

Department
Computer Systems Eng Tech

Course Description
Issues in Operating Systems design. Topics include: processes, threads and fibers, privilege modes, preemptive multitasking, process state machine, scheduling paradigms, system calls/traps, shared resources and synchronization primitives, memory management schemes/virtual memory, deadlock detection, handling, and avoidance, I/O management.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST356 - Web Design and Development

Overview

Course Subject Code
CST

Course Number
356

Course Title
Web Design and Development

Department
Computer Systems Eng Tech

Course Description
Basic components of web development which include aspects of design as well as current development technologies. Development technologies include, but are not limited to, HTML/XHTML, JavaScript, and CSS. Other technologies discussed may include Java Applets, CGI programming, ASP.NET and PHP.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST371 - Embedded Systems Development I

Overview

Course Subject Code
CST

Course Number
371

Course Title
Embedded Systems Development I

Department
Computer Systems Eng Tech

Course Description
A three term sequence covering design, implementation, test and documentation techniques used for embedded computer systems. Each student is required to work on and complete a project as a member of a team. The entire sequence must be completed in three consecutive terms.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST372 - Embedded Systems Develop II

Overview

Course Subject Code
CST

Course Number
372

Course Title
Embedded Systems Develop II

Department
Computer Systems Eng Tech

Course Description
Second course in a three term sequence. Design, implementation, test and documentation techniques used for embedded computer systems. Each student is required to work on and complete a project as a member of a team. The entire sequence must be completed in three consecutive terms.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST373 - Embedded Systems Develop III

Overview

Course Subject Code
CST

Course Number
373

Course Title
Embedded Systems Develop III

Department
Computer Systems Eng Tech

Course Description
Final course in a three term sequence. Design, implementation, test and documentation techniques used for embedded computer systems. Each student is required to work on and complete a project as a member of a team. The entire sequence must be completed in three consecutive terms.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST374 - Embedded Project Proposal

Overview

Course Subject Code
CST

Course Number
374

Course Title
Embedded Project Proposal

Department
Computer Systems Eng Tech

Course Description
Development of formal, in-depth embedded senior project proposal. Guidelines for an acceptable project; project and time management techniques; task assignment. Individual creativity will be encouraged by allowing the student to select an appropriate embedded systems project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
4

Pre-Requisites

No Requirements

CST405 - Directed Study

Overview

Course Subject Code
CST

Course Number
405

Course Title
Directed Study

Department
Computer Systems Eng Tech

Course Description
Advanced study under the guidance of faculty. Topics and learning objectives arranged between students and instructor. Students will meet with instructor weekly to discuss progress and provide evidence of their performance. Junior standing in CSET and instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST407 - Seminar

Overview

Course Subject Code
CST

Course Number
407

Course Title
Seminar

Department
Computer Systems Eng Tech

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
18

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
36

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
18

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
18

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST412 - Senior Development Proj

Overview

Course Subject Code
CST

Course Number
412

Course Title
Senior Development Proj

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning and carrying out a computer-oriented project. Individual creativity will be encouraged by allowing the student to select an appropriate project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST415 - Computer Networks

Overview

Course Subject Code
CST

Course Number
415

Course Title
Computer Networks

Department
Computer Systems Eng Tech

Course Description
Current issues in computer networks and distributed systems. Topics include network protocols, interface standards, and transmissions mode. Network layers detailing Internet Protocol Suite and correlations with 7 layer abstract communication model. Routing and WAN architectures.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST416 - LISP

Overview

Course Subject Code
CST

Course Number
416

Course Title
LISP

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CST417 - Embedded Networking

Overview

Course Subject Code
CST

Course Number
417

Course Title
Embedded Networking

Department
Computer Systems Eng Tech

Course Description
Network protocol in a small scale embedded environment, Physical characteristic specification, network interface, controller interface, TCP/IP, application interface, packet routing, network architecture. Lab integral to course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST418 - Data Comm & Networks

Overview

Course Subject Code
CST

Course Number
418

Course Title
Data Comm & Networks

Department
Computer Systems Eng Tech

Course Description
Provides students with an introduction to data communications and computer networks. Students acquire knowledge of communications components and their use in implementing a network. Emphasis is on the practical aspects of network configuration, operations, and detection, isolation and correction of problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST422 - Sr Development Project

Overview

Course Subject Code
CST

Course Number
422

Course Title
Sr Development Project

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning and carrying out a computer-oriented project. Individual creativity will be encouraged by allowing the student to select an appropriate project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST426 - Intro to Artif Intell

Overview

Course Subject Code
CST

Course Number
426

Course Title
Intro to Artif Intell

Department
Computer Systems Eng Tech

Course Description
Concepts and techniques of AI with considerable use of the LISP interpreter. Includes discussion of "search" methods, knowledge representation, natural language processing, models of cognition, vision, and "The Blocks World."

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST429 - Grammars

Overview

Course Subject Code
CST

Course Number
429

Course Title
Grammars

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

CST432 - Senior Development Proj

Overview

Course Subject Code
CST

Course Number
432

Course Title
Senior Development Proj

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning and carrying out a computer-oriented project. Individual creativity will be encouraged by allowing the student to select an appropriate project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST442 - Adv Comp Architecture

Overview

Course Subject Code
CST

Course Number
442

Course Title
Adv Comp Architecture

Department
Computer Systems Eng Tech

Course Description
Advanced concepts in computer architectures including pipelined, super pipelined, superscalar, and dynamically pipelined processor architectures. Parallel processors, multiprocessors, cache and cache coherency.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CST455 - System on a Chip Design

Overview

Course Subject Code
CST

Course Number
455

Course Title
System on a Chip Design

Department
Computer Systems Eng Tech

Course Description
System level design representations, and modeling languages. Target architecture models. Intra-chip communication. Partitioning algorithms. Task time measurement. Back annotation of timing. Synthesis of SoC components.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST456 - Embedded System Testing

Overview

Course Subject Code
CST

Course Number
456

Course Title
Embedded System Testing

Department
Computer Systems Eng Tech

Course Description
Testing of complete embedded systems including hardware and software. Topics include unit testing for both hardware and software, UVM testing framework for hardware and test driven design practices as they apply to both hardware and software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST465 - Web Development with ASP.NET

Overview

Course Subject Code
CST

Course Number
465

Course Title
Web Development with ASP.NET

Department
Computer Systems Eng Tech

Course Description
Dynamic web site creation and development strategies using ASP.NET are discussed and practiced. Focus on the importance of databases in the creation of a dynamic web site is heavily emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST466 - Embedded System Security

Overview

Course Subject Code
CST

Course Number
466

Course Title
Embedded System Security

Department
Computer Systems Eng Tech

Course Description
Fundamental theories and applications of cryptography relevant to computer and embedded system security.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

CST471 - Embedded Senior Project

Overview

Course Subject Code
CST

Course Number
471

Course Title
Embedded Senior Project

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning, implementing and testing an embedded systems project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

CST472 - Embedded Senior Project

Overview

Course Subject Code
CST

Course Number
472

Course Title
Embedded Senior Project

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning, implementing and testing an embedded systems project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST473 - Embedded Senior Project

Overview

Course Subject Code
CST

Course Number
473

Course Title
Embedded Senior Project

Department
Computer Systems Eng Tech

Course Description
A three-term sequence giving the student major responsibility for planning, implementing and testing an embedded systems project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, SR GR
Capstone Project COOP, SR GR
Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST475 - Big-Data Analysis

Overview

Course Subject Code
CST

Course Number
475

Course Title
Big-Data Analysis

Department
Computer Systems Eng Tech

Course Description
Data analysis using very large data sets. Topics include loading, extracting, and analyzing data. Technologies include distributed SQL and No-SQL databases, map-reduce, and other distributed data access and processing mechanisms.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
5

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
2

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

CST490 - Co-op Field Practice

Overview

Course Subject Code
CST

Course Number
490

Course Title
Co-op Field Practice

Department
Computer Systems Eng Tech

Course Description
An approved work program related to the student's field of specialization for a continuous three-month or six-month period. The employer and the type, level, and difficulty of the particular job must be approved by the student's engineering technology department prior to the employment period. A written comprehensive report of each season's activity must be submitted during the following term of residence. Prerequisites: Associate degree and two terms of residence.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
SR GR Capstone Project COOP, Externship/Practicum, *Experiential

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CST490P - Co-op Field Practice

Overview

Course Subject Code
CST

Course Number
490P

Course Title
Co-op Field Practice

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CST507 - Seminar

Overview

Course Subject Code
CST

Course Number
507

Course Title
Seminar

Department
Computer Systems Eng Tech

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
6

Other Hours Operator
TO

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

Pre-Requisites

No Requirements

CTE000 - Career Technical Elective

Overview

Course Subject Code
CTE

Course Number
000

Course Title
Career Technical Elective

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

CTE00U - Career Technical Elect Upper

Overview

Course Subject Code
CTE

Course Number
00U

Course Title
Career Technical Elect Upper

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

CYB107 - Seminar

Overview

Course Subject Code
CYB

Course Number
107

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Experiential, Laboratory, Lecture/Lab, Independent Study, Lecture, Seminar

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
45

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CYB201 - Cybersecurity Fundamentals

Overview

Course Subject Code
CYB

Course Number
201

Course Title
Cybersecurity Fundamentals

Department
Management

Course Description
Introduces fundamental concepts used in Cybersecurity. Topics covered include: threats, attacks, and vulnerabilities; confidentiality, integrity, and availability; common cybersecurity technologies and tools; security architecture and design principles; identity and access management; risk management; and cryptography.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CYB207 - Seminar

Overview

Course Subject Code
CYB

Course Number
207

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Experiential, Laboratory, Lecture/Lab, Independent Study, Lecture, Seminar

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
45

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CYB301 - Hacker Tools and Techniques

Overview

Course Subject Code
CYB

Course Number
301

Course Title
Hacker Tools and Techniques

Department
Management

Course Description
Introduces how “hackers” operate and the techniques, tools and processes they use to gain unauthorized access to systems, and how to best protect and defend systems from these same types of attack. Students will learn how to conduct basic security testing or “ethical hacking” to identify potential weaknesses in an organization’s network and computer systems. Students will also learn how to prepare a formal written report of their findings for management.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

CYB302 - Sys. Defenses & Incident Rpt.

Overview

Course Subject Code
CYB

Course Number
302

Course Title
Sys. Defenses & Incident Rpt.

Department
Management

Course Description
Introduces the CIS 20 Critical Controls and the fundamental concepts of operating system hardening and other defensive strategies to secure networks and information systems. Students will also learn how to investigate suspicious activity on computer systems to determine if it has been compromised, and how to respond to security incidents and data breaches.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CYB303 - Security Operations & Analysis

Overview

Course Subject Code
CYB

Course Number
303

Course Title
Security Operations & Analysis

Department
Management

Course Description
Introduces the concept of a Security Operations Center (SOC) and the role of a Security Analyst. Students will learn about Security Information and Event Management (SIEM) systems, Intrusion Detection Systems (IDS), log management and analysis, packet capture analysis, vulnerability analysis and patch management. Students will complete a team project during the course where they must monitor and defend systems as a group.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CYB307 - Seminar

Overview

Course Subject Code
CYB

Course Number
307

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Experiential, Laboratory, Lecture/Lab, Independent Study, Lecture, Seminar

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
45

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CYB351 - Network Security

Overview

Course Subject Code
CYB

Course Number
351

Course Title
Network Security

Department
Management

Course Description
Examines tools and techniques used for securing IP based networks, with a specific focus on Firewalls and VPNs. Topics include stateful inspection firewall basics, explicit proxy, deep-packet inspection, intrusion detection and prevention systems, network based anti-virus, email filtering, data loss prevention, application control, traffic shaping, packet capture and analysis, and SSL and IPSec VPNs.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

CYB407 - Seminar

Overview

Course Subject Code
CYB

Course Number
407

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
SR GR Capstone Project COOP, Laboratory, Lecture/Lab, Independent Study, Lecture, Seminar, *Experiential, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
45

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

CYB411 - Managing Risk in Info Systems

Overview

Course Subject Code
CYB

Course Number
411

Course Title
Managing Risk in Info Systems

Department
Management

Course Description
Focus on the risk assessment and analysis processes as they are applied to information systems. Details of how confidentiality, integrity and availability are maintained in an organization's complex information systems are explored. Topics include quantitative and qualitative risk analysis, risk mitigation/transference/acceptance, disaster recovery and business continuity planning, security program management, and security awareness training.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

CYB441 - Managing Risk in Info Systems

Overview

Course Subject Code
CYB

Course Number
441

Course Title
Managing Risk in Info Systems

Department
Management

Course Description
Focus on the risk assessment and analysis processes as they are applied to information systems .. Details of how confidentiality, integrity and availability are maintained in an organization's complex information systems are explored. Topics covered include quantitative and qualitative risk analysis, risk mitigation/ transference/ acceptance, disaster recovery and business continuity planning, security program management, and security awareness training.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH107 - Seminar

Overview

Course Subject Code
DH

Course Number
107

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH207 - Seminar

Overview

Course Subject Code
DH

Course Number
207

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH221 - Clinical Prac & Seminar I

Overview

Course Subject Code
DH

Course Number
221

Course Title
Clinical Prac & Seminar I

Department
Dental Hygiene

Course Description
Sequential courses designed to provide clinical skills essential for the practice of dental hygiene. Skill development of patient assessment, basic instrumentation and individualized preventive care emphasized. Prerequisite: Admission to Dental Hygiene program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH222 - Clinical Prac & Seminar II

Overview

Course Subject Code
DH

Course Number
222

Course Title
Clinical Prac & Seminar II

Department
Dental Hygiene

Course Description
Sequential courses designed to provide clinical skills essential for the practice of dental hygiene. Skill development of patient assessment, basic instrumentation, and individualized preventive care emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH223 - Clinical Prac & Seminar III

Overview

Course Subject Code
DH

Course Number
223

Course Title
Clinical Prac & Seminar III

Department
Dental Hygiene

Course Description
Sequential courses designed to provide clinical skills essential for the practice of dental hygiene. Skill development of patient assessment, basic instrumentation, and individualized preventive care emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH225 - Head/ Neck,Histology,Embryology

Overview

Course Subject Code
DH

Course Number
225

Course Title
Head/Neck,Histology,Embryology

Department
Dental Hygiene

Course Description
Lecture and lab course that provides an in-depth study of head and neck anatomy, histology, and embryology for the dental professional. Emphasis on human development, anatomy in relation to facial and oral structures, and histology of hard and soft dental tissues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH240 - Prevention I

Overview

Course Subject Code
DH

Course Number
240

Course Title
Prevention I

Department
Dental Hygiene

Course Description
Beginning discussions about healthcare for the provider as a part of holistic healthcare, and foundations for preventing oral disease. Focus on strategies for improving oral health.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH241 - Prevention II

Overview

Course Subject Code
DH

Course Number
241

Course Title
Prevention II

Department
Dental Hygiene

Course Description
Second of a three-term series emphasizing prevention and management of caries and oral health education for individual patients and groups.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH242 - Prevention III

Overview

Course Subject Code
DH

Course Number
242

Course Title
Prevention III

Department
Dental Hygiene

Course Description
Last of a three-term series emphasizing dental management and oral health education for a variety of age demographics including pregnancy, infants, children, and adolescence.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH244 - General and Oral Pathology

Overview

Course Subject Code
DH

Course Number
244

Course Title
General and Oral Pathology

Department
Dental Hygiene

Course Description
Introduction to general pathology and common oral pathologies. Basic pathology, inflammation, immune system, and neoplasia. Etiology and recognition of benign and malignant oral and skin lesions. Descriptive terminology and differential diagnosis introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH252 - Oral Radiology I

Overview

Course Subject Code
DH

Course Number
252

Course Title
Oral Radiology I

Department
Dental Hygiene

Course Description
The first of a two course series that includes didactic and pre-clinical instruction in the principles and techniques of dental radiography.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH253 - Oral Radiology II

Overview

Course Subject Code
DH

Course Number
253

Course Title
Oral Radiology II

Department
Dental Hygiene

Course Description
The second of a two course series that includes didactic instruction in the principles and techniques of dental radiography with emphasis on image interpretation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DH254 - Introduction to Periodontology

Overview

Course Subject Code
DH

Course Number
254

Course Title
Introduction to Periodontology

Department
Dental Hygiene

Course Description
Introduction to periodontology with emphasis on etiology and pathogenesis of periodontal disease, disease classification, and assessment procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DH266 - Dental Anatomy

Overview

Course Subject Code
DH

Course Number
266

Course Title
Dental Anatomy

Department
Dental Hygiene

Course Description
In-depth study of crown and root morphology of primary and permanent dentitions, with tooth restoration considerations. The temporomandibular joint and occlusion will also be studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

DH267 - Emergency Procedures

Overview

Course Subject Code
DH

Course Number
267

Course Title
Emergency Procedures

Department
Dental Hygiene

Course Description
Prevention, preparation, and management of emergency situations common in the dental environment. Individual and team practice in carrying out emergency procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH275 - Dental Ethics

Overview

Course Subject Code
DH

Course Number
275

Course Title
Dental Ethics

Department
Dental Hygiene

Course Description
Professional ethics and legal requirements of the dental profession.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DH299 - Laboratory Practice

Overview

Course Subject Code
DH

Course Number
299

Course Title
Laboratory Practice

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH307 - Seminar

Overview

Course Subject Code
DH

Course Number
307

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH321 - Clincal Prac & Sem IV

Overview

Course Subject Code
DH

Course Number
321

Course Title
Clincal Prac & Sem IV

Department
Dental Hygiene

Course Description
Sequential courses designed for the continued development of dental hygiene skills necessary for entry into professional clinical practice. Ultrasonic, advanced instrumentation, and expanded dental hygiene functions are practiced, in addition to observations in dental practice settings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH322 - Clincal Prac & Sem V

Overview

Course Subject Code
DH

Course Number
322

Course Title
Clincal Prac & Sem V

Department
Dental Hygiene

Course Description
Sequential courses designed for the continued development of dental hygiene skills necessary for entry into profession clinical practice. Ultrasonic, advanced instrumentation, and expanded dental hygiene functions are practiced, in addition to observations in dental practice settings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH323 - Clinical Prac & Sem VI

Overview

Course Subject Code
DH

Course Number
323

Course Title
Clinical Prac & Sem VI

Department
Dental Hygiene

Course Description
Sequential courses designed for the continued development of dental hygiene skills necessary for entry into professional clinical practice. Ultrasonic, advanced instrumentation, and expanded dental hygiene functions are practiced, in addition to observations in dental practice settings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
13

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH340 - Emerging Oral Health Topics

Overview

Course Subject Code
DH

Course Number
340

Course Title
Emerging Oral Health Topics

Department
Dental Hygiene

Course Description
Fourth of a five term series emphasizing oral health education and dental management of common conditions found in the adolescent through geriatric population.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH341 - Vulnerable Populations

Overview

Course Subject Code
DH

Course Number
341

Course Title
Vulnerable Populations

Department
Dental Hygiene

Course Description
The last of a five term series emphasizing oral health education and dental management of patients with medically compromised status. A variety of systemic conditions are discussed in depth in regards to the unique needs and prevention strategies for each individual.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH344 - Adv General & Oral Pathology

Overview

Course Subject Code
DH

Course Number
344

Course Title
Adv General & Oral Pathology

Department
Dental Hygiene

Course Description
Further study of general and oral pathology. Developmental, hereditary, and congenital disorders. Endocrine, cardiovascular, hematopoietic, respiratory, gastrointestinal, neurologic, and skeletal disorders. Tooth abnormalities, radiographic lesions, and oral tissue enlargements. Systemic and oral complications of HIV and AIDS. Lesion description emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH351 - Pain Management I

Overview

Course Subject Code
DH

Course Number
351

Course Title
Pain Management I

Department
Dental Hygiene

Course Description
The first of a two course series. Lecture: study of pharmacology, solutions, dosages, vasoconstrictors, drug interactions, medical history evaluation and contradictions. Laboratory practice in techniques of local anesthesia include basic injection technique including block infiltration.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH352 - Pain Management II

Overview

Course Subject Code
DH

Course Number
352

Course Title
Pain Management II

Department
Dental Hygiene

Course Description
A continuation course of the pain management series. Coordinated lecture and laboratory practices in the recognition of dental anxiety; behavioral management; complications with anesthesia; nitrous oxide sedation techniques are practiced; advanced techniques in the administration of local anesthetics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH354 - Periodontology

Overview

Course Subject Code
DH

Course Number
354

Course Title
Periodontology

Department
Dental Hygiene

Course Description
Evidence-based approach for treatment of periodontal disease including nonsurgical and surgical treatment. Root anatomy relating to effective instrument adaptation. Treatment planning for patients with all types of classifications of periodontal disease.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH360 - Pharmacology for DH

Overview

Course Subject Code
DH

Course Number
360

Course Title
Pharmacology for DH

Department
Dental Hygiene

Course Description
General principles of pharmacology, modes of administration and effects on body systems, modes of excretion, and potential effects on the oral cavity. This course will emphasize the drugs the dental hygienist will encounter, how to incorporate this knowledge into the dental hygiene care plan and in patient education.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH363 - Dental Materials

Overview

Course Subject Code
DH

Course Number
363

Course Title
Dental Materials

Department
Dental Hygiene

Course Description
General properties, composition and manipulation of common dental and restorative materials. Expanded functions including denture relines and amalgam polishing are practiced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH366 - Dental Anatomy

Overview

Course Subject Code
DH

Course Number
366

Course Title
Dental Anatomy

Department
Dental Hygiene

Course Description
In-depth study of crown and root morphology of primary and permanent dentitions, with tooth restoration considerations. The temporomandibular joint and occlusion will also be studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DH370 - International Experience I

Overview

Course Subject Code
DH

Course Number
370

Course Title
International Experience I

Department
Dental Hygiene

Course Description
Sequential courses preparing for and providing dental hygiene care at an international site using portable dental equipment. Cultural issues, teamwork, financing, needs assessment, goal setting, and delivery of program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course DH321
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- DH321 - Clincal Prac & Sem IV

Additional Comments:

A minimum grade of 'D' in Course DH381
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- DH381 - Comm Dentl Hlth II

Additional Comments:

DH371 - International Experience II

Overview

Course Subject Code
DH

Course Number
371

Course Title
International Experience II

Department
Dental Hygiene

Course Description
Sequential courses preparing for and providing dental hygiene care at an international site using portable dental equipment. Cultural issues, teamwork, financing, needs assessment, goal setting and delivery of program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
3

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course DH370
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- DH370 - International Experience I

Additional Comments:

DH372 - International Experience III

Overview

Course Subject Code
DH

Course Number
372

Course Title
International Experience III

Department
Dental Hygiene

Course Description
Sequential courses preparing for and providing dental hygiene care at an international site using portable dental equipment. Cultural issues, teamwork, financing, needs assessment, goal setting and delivery of program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course DH371
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- DH371 - International Experience II

Additional Comments:

DH380 - Community Health I

Overview

Course Subject Code
DH

Course Number
380

Course Title
Community Health I

Department
Dental Hygiene

Course Description
First in a three course sequence using a service learning approach. Students work in teams, identify target groups and conduct a needs assessment. Introduction to public health agencies and their functions; and to the role of the dental hygienist in public health.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

DH381 - Comm Dentl Hlth II

Overview

Course Subject Code
DH

Course Number
381

Course Title
Comm Dentl Hlth II

Department
Dental Hygiene

Course Description
Service learning and systematic approach to developing oral health programs continues. Teams complete a program based on the needs assessment. Community health education and health literacy are emphasized. Grant writing for program funding is practiced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
2

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
2

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
1

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH382 - Comm Dentl Hlth III

Overview

Course Subject Code
DH

Course Number
382

Course Title
Comm Dentl Hlth III

Department
Dental Hygiene

Course Description
Service learning and systematic approach for implementing community oral health programs continues. Teams implement programs they designed. Health education occurs in the community. A broad view of public health including advocacy, epidemiology, research; controversy of water fluoridation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course DH381
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- DH381 - Comm Dentl Hlth II

Additional Comments:

DH399 - Lab Practice

Overview

Course Subject Code
DH

Course Number
399

Course Title
Lab Practice

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH401 - Overview Advanced Dental Hyg

Overview

Course Subject Code
DH

Course Number
401

Course Title
Overview Advanced Dental Hyg

Department
Dental Hygiene

Course Description
Introduction to the online degree completion program. Career opportunities, roles of the dental hygienist, and the different emphases within the program are explored. Prerequisite: Admission to BDHO program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH405 - Pharmacology Review for DH

Overview

Course Subject Code
DH

Course Number
405

Course Title
Pharmacology Review for DH

Department
Dental Hygiene

Course Description
A review of the general principles of pharmacology, modes of administration and effects on body systems, modes of excretion, and potential effects on the oral cavity. Course emphasizes drugs encountered in the dental hygiene care plan, in preparation for national board exams.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH407 - Seminar

Overview

Course Subject Code
DH

Course Number
407

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
4

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DH421 - Clinical Prac & Sem VII

Overview

Course Subject Code
DH

Course Number
421

Course Title
Clinical Prac & Sem VII

Department
Dental Hygiene

Course Description
Further refinement of clinical instrumentation and assessment skills. Emphasis on individualized care for patients with diverse oral needs. Variety of off-campus practice settings experienced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH422 - Clinical Prac & Sem VIII

Overview

Course Subject Code
DH

Course Number
422

Course Title
Clinical Prac & Sem VIII

Department
Dental Hygiene

Course Description
Further refinement of clinical instrumentation and assessment skills. Emphasis on individualized care for patients with diverse oral needs. Variety of off-campus practice settings experienced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
13

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH423 - Clinical Prac & Sem IX

Overview

Course Subject Code
DH

Course Number
423

Course Title
Clinical Prac & Sem IX

Department
Dental Hygiene

Course Description
Further refinement of clinical instrumentation and assessment skills. Emphasis on individualized care for patients with diverse oral needs. Variety of off-campus practice settings experienced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
13

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH430 - Dental Hyg Board Review

Overview

Course Subject Code
DH

Course Number
430

Course Title
Dental Hyg Board Review

Department
Dental Hygiene

Course Description
Designed to help students prepare for their national board exam. Multiple-choice test-taking skills practiced. Mock tests simulating the real exam are used.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DH453 - Res. & Evid. Based Dent. I

Overview

Course Subject Code
DH

Course Number
453

Course Title
Res. & Evid. Based Dent. I

Department
Dental Hygiene

Course Description
First of two-course sequence exploring evidence-based decision making in dentistry and secondary research. Current issues affecting dental hygiene practice are explored. The process or evidence-based decision making is introduced with emphasis on writing questions and accessing quality research. Prerequisite: Admission to BDHO program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH454 - Dental Prac Mgmt

Overview

Course Subject Code
DH

Course Number
454

Course Title
Dental Prac Mgmt

Department
Dental Hygiene

Course Description
Profitability of the dental hygiene department; practice models, office design; patient satisfaction; financing options for the patient. Technology's impact on practice management.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH455 - Res. & Evid. Based Dent. II

Overview

Course Subject Code
DH

Course Number
455

Course Title
Res. & Evid. Based Dent. II

Department
Dental Hygiene

Course Description
Second in a two-course sequence. Emphasis is on critical appraisal of research and application of research findings. Students write critical summaries and apply findings to clinical practice.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH461 - Restorative Dentistry I

Overview

Course Subject Code
DH

Course Number
461

Course Title
Restorative Dentistry I

Department
Dental Hygiene

Course Description
Study of materials and procedures used in restorative dentistry at a foundational level. Emphasis on restoration placement techniques. Practical experience using restorative dental materials. Laboratory activities are designed to reinforce course content and prepare students for patient care.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH462 - Restorative Dentistry II

Overview

Course Subject Code
DH

Course Number
462

Course Title
Restorative Dentistry II

Department
Dental Hygiene

Course Description
Study of materials and procedures used in restorative dentistry at a practicing level. Emphasis on restoration placement techniques. Practical experience using restorative dental materials. Laboratory activities are designed to reinforce course content and prepare students for patient care.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH463 - Restorative Dentistry III

Overview

Course Subject Code
DH

Course Number
463

Course Title
Restorative Dentistry III

Department
Dental Hygiene

Course Description
Emphasis on restoration placement techniques. Practical experience using restorative dental materials. Placement and finishing of amalgam and composite restorations on typodonts in Restorative Dentistry I and on patients in Restorative II and III.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH465 - Indep. Dental Hygiene Practice

Overview

Course Subject Code
DH

Course Number
465

Course Title
Indep. Dental Hygiene Practice

Department
Dental Hygiene

Course Description
Introduction to independent dental hygiene practice. Designed for those interested in developing their own business venture (self-employment) as an Expanded Practice Dental Hygienist. Various practice opportunities are explored. Students develop and submit a business plan for a dental hygiene practice.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Pre-Requisites

No Requirements

DH467 - Restorative Func Endorsement

Overview

Course Subject Code
DH

Course Number
467

Course Title
Restorative Func Endorsement

Department
Dental Hygiene

Course Description
This course fulfills the Oregon Board of Dentistry (OBD) requirements for the restorative endorsement for dental assistants and dental hygienists. Lecture, lab practice on typodonts and clinical practice with patients. Additional testing is required by the OBD following course completion. Prerequisite: AS or BS in Dental Hygiene or EFDA (Expanded Function Dental Assistant)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
2

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DH470 - Cmty. Asmt. & Program Planning

Overview

Course Subject Code
DH

Course Number
470

Course Title
Cmty. Asmt. & Program Planning

Department
Dental Hygiene

Course Description
Dental public health, social determinants of health, and the impact of current events affecting access to care are examined. A community oral health assessment and strategic program plan using local solutions will be developed. Prerequisite: Admission to BOHO program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
5

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH475 - EBDM in Healthcare I

Overview

Course Subject Code
DH

Course Number
475

Course Title
EBDM in Healthcare I

Department
Dental Hygiene

Course Description
Course emphasizes evidence-based decision making; developing clinical questions, identifying research designs and evidence, importance of statistics, and literature searches. Critical analysis of literature and formulation of critically appraised topics (CATS) in preparation for research dissemination (prospectus or graduate school).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH476 - Applied Research Concepts

Overview

Course Subject Code
DH

Course Number
476

Course Title
Applied Research Concepts

Department
Dental Hygiene

Course Description
Course expands upon basic research principles. Emphasis on advanced knowledge and application of research culminating in an original research project. Prepare students for advanced coursework in graduate school.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DH499 - Laboratory Practice

Overview

Course Subject Code
DH

Course Number
499

Course Title
Laboratory Practice

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DHE100 - Intro to Dental Hygiene I

Overview

Course Subject Code
DHE

Course Number
100

Course Title
Intro to Dental Hygiene I

Department
Dental Hygiene

Course Description
Orientation to the theory and practice of all aspects of the dental hygiene profession. The history of dental hygiene, professional organization and career opportunities are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DHE207 - Seminar

Overview

Course Subject Code
DHE

Course Number
207

Course Title
Seminar

Department
Dental Hygiene

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DHE221 - Dental Hyg Clincal Pract I

Overview

Course Subject Code
DHE

Course Number
221

Course Title
Dental Hyg Clincal Pract I

Department
Dental Hygiene

Course Description
Sequential course designed to provide clinical skills essential for the practice of dental hygiene. Skill development in the areas of patient appraisal, basic instrumentation, and individualized preventive care emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS107 - Seminar

Overview

Course Subject Code
DMS

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS207 - Seminar

Overview

Course Subject Code
DMS

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS223 - App of Abdominal Sonogr I

Overview

Course Subject Code
DMS

Course Number
223

Course Title
App of Abdominal Sonogr I

Department
Medical Imaging Technology

Course Description
History of sonography. Orientation to patient history, abdominal cross-sectional anatomy, scanning, and normal sonographic presentations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS224 - App of Abdominal Sonogr II

Overview

Course Subject Code
DMS

Course Number
224

Course Title
App of Abdominal Sonogr II

Department
Medical Imaging Technology

Course Description
Orientation to cross-sectional abdominal anatomy and pathology of organs and vessels. Procedures and techniques, including scanning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS225 - App of Abdominal Sonogr III

Overview

Course Subject Code
DMS

Course Number
225

Course Title
App of Abdominal Sonogr III

Department
Medical Imaging Technology

Course Description
Advanced abdominal scanning procedures and techniques. Emphasis on superficial structures invasive procedures and Doppler correlation, including scanning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS234 - Pelvic Sonography

Overview

Course Subject Code
DMS

Course Number
234

Course Title
Pelvic Sonography

Department
Medical Imaging Technology

Course Description
Orientation to male and female pelvic cross-sectional anatomy and pathology, differentiating between normal variations and abnormalities to include first trimester obstetrics and trans-vaginal scanning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS235 - DMS Patient Care

Overview

Course Subject Code
DMS

Course Number
235

Course Title
DMS Patient Care

Department
Medical Imaging Technology

Course Description
Sonographic management and applications of cognitive, psychomotor, and interpersonal skills as they relate to the health care consumer. Patient assessment and communication, body mechanics, medical and surgical asepsis, medical emergencies, pharmacology, and analysis of ethical and legal issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS252 - Sophomore Lab I

Overview

Course Subject Code
DMS

Course Number
252

Course Title
Sophomore Lab I

Department
Medical Imaging Technology

Course Description
Applied scanning of right upper quadrant anatomy stressing imaging planes. Gray scale instrumentation, system-optimization, preventive maintenance, and quality hard copy imaging. Sophomore standing in the DMS program required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS253 - Sophomore Lab II

Overview

Course Subject Code
DMS

Course Number
253

Course Title
Sophomore Lab II

Department
Medical Imaging Technology

Course Description
Applied scanning of the remainder of the abdominal cavity stressing anatomy, standard imaging planes, and hard copy quality. Doppler instrumentation as applied to the cerebrovascular system stressing pulse wave Doppler, color Doppler, Doppler optimization and standard imaging planes. Imaging review of prior anatomical areas.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS254 - Sophomore Lab III

Overview

Course Subject Code
DMS

Course Number
254

Course Title
Sophomore Lab III

Department
Medical Imaging Technology

Course Description
DMS orientation to cross-sectional pelvic anatomy and pathology of the male and female pelvis. Procedures and techniques, including scanning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS307 - Seminar

Overview

Course Subject Code
DMS

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS316 - Survey of Vascular Tech

Overview

Course Subject Code
DMS

Course Number
316

Course Title
Survey of Vascular Tech

Department
Medical Imaging Technology

Course Description
Orientation to vascular physics, equipment, and color flow imaging. Explanation of Doppler imaging in relation to vascular anatomy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS337 - Breast Sonography

Overview

Course Subject Code
DMS

Course Number
337

Course Title
Breast Sonography

Department
Medical Imaging Technology

Course Description
Breast sonographic scanning procedures with an emphasis on sonographic applications. Correlation with other imaging modalities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS342 - Survey of Adult Echo

Overview

Course Subject Code
DMS

Course Number
342

Course Title
Survey of Adult Echo

Department
Medical Imaging Technology

Course Description
Survey of adult echocardiographic imaging applications with emphasis on parasternal, apical, subcostal and suprasternal 2-D views. Standard M-Mode measurements. Doppler and color Doppler. Common cardiac pathology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS343 - Neonatal/Pediatric Sonography

Overview

Course Subject Code
DMS

Course Number
343

Course Title
Neonatal/Pediatric Sonography

Department
Medical Imaging Technology

Course Description
Fetal cardiac development and normal anatomy. Fetal echocardiographic 2D views, M-Mode, Doppler and Color Doppler. Common fetal cardiac pathology and anomalies. Neonatal topics include hip, abdominal and neurological sonographic applications. General sonographic pediatric pathologies and anomalies will be discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS346 - Musculoskeletal Sonography

Overview

Course Subject Code
DMS

Course Number
346

Course Title
Musculoskeletal Sonography

Department
Medical Imaging Technology

Course Description
Survey of sonographic musculoskeletal imaging with emphasis on normal and abnormal findings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS352 - Junior Lab I

Overview

Course Subject Code
DMS

Course Number
352

Course Title
Junior Lab I

Department
Medical Imaging Technology

Course Description
Topics to include the male/female pelvis, first trimester, musculoskeletal, and breast stressing sonographic anatomy, standard imaging planes, and image quality.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
1

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS353 - Junior Lab II

Overview

Course Subject Code
DMS

Course Number
353

Course Title
Junior Lab II

Department
Medical Imaging Technology

Course Description
Topics to include normal first, second, third trimester, and cardiovascular stressing anatomy, standard imaging planes, and image quality.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS354 - Junior Lab III

Overview

Course Subject Code
DMS

Course Number
354

Course Title
Junior Lab III

Department
Medical Imaging Technology

Course Description
Applied sonographic laboratory procedures and techniques. Emphasis on protocols and case reviews.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS365 - Sonographic Pathology

Overview

Course Subject Code
DMS

Course Number
365

Course Title
Sonographic Pathology

Department
Medical Imaging Technology

Course Description
Differential diagnosis and concepts of disease processes as applied to sonographic examination. Junior standing in the DMS program required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS370 - Obstetrical Sonography

Overview

Course Subject Code
DMS

Course Number
370

Course Title
Obstetrical Sonography

Department
Medical Imaging Technology

Course Description
Orientation to obstetrical scanning procedures and techniques. Emphasis on normal obstetrical anatomy and fetal development.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS373 - Obstetrical Pathology

Overview

Course Subject Code
DMS

Course Number
373

Course Title
Obstetrical Pathology

Department
Medical Imaging Technology

Course Description
Advanced obstetrical scanning of second and third trimester obstetrical patients with emphasis on pathology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS375 - Fetal Echocardiography

Overview

Course Subject Code
DMS

Course Number
375

Course Title
Fetal Echocardiography

Department
Medical Imaging Technology

Course Description
Survey of fetal echocardiographic imaging applications with emphasis on parasternal, apical, subcostal and suprasternal 2-D views. Standard M- Mode measurements, Doppler and color Doppler. Common congenital cardiac pathology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

DMS388 - Externship Preparation

Overview

Course Subject Code
DMS

Course Number
388

Course Title
Externship Preparation

Department
Medical Imaging Technology

Course Description
Presentation of key concepts related to Diagnostic Medical Sonography externship and required in-services. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the clinical environment. Review and discussion of the DMS Externship Handbook.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

DMS407 - Seminar

Overview

Course Subject Code
DMS

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS430 - DMS Externship

Overview

Course Subject Code
DMS

Course Number
430

Course Title
DMS Externship

Department
Medical Imaging Technology

Course Description
All B.S. students must complete four terms (12 months) of clinical experience in sonography at an OIT approved clinical site. Students will work under the direct supervision of registered sonographers. Prerequisite: All academic course work in the Diagnostic Medical Sonography curriculum

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS430A - DMS Externship

Overview

Course Subject Code
DMS

Course Number
430A

Course Title
DMS Externship

Department
Medical Imaging Technology

Course Description
This two-term special externship is designed for the degree completion student. Students working in a clinical ultrasound setting will prepare clinical case studies. Must be an ARDMS sonographer in good standing and have completed all academic coursework in the Medical Imaging curriculum with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
8

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
22

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
8

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
22

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

DMS430B - DMS Externship

Overview

Course Subject Code
DMS

Course Number
430B

Course Title
DMS Externship

Department
Medical Imaging Technology

Course Description
This two-term special externship is designed for the degree completion student. Students working in a clinical ultrasound setting will prepare clinical case studies. Must be an ARDMS sonographer in good standing and have completed all academic coursework in the Medical Imaging curriculum with grade "C" or better

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
7

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
7

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
18

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO107 - Seminar

Overview

Course Subject Code
ECHO

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO207 - Seminar

Overview

Course Subject Code
ECHO

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO225 - Cardio Patient Mgmt Practices

Overview

Course Subject Code
ECHO

Course Number
225

Course Title
Cardio Patient Mgmt Practices

Department
Medical Imaging Technology

Course Description
Current issues in the practice of echocardiography with emphasis on the technologist's responsibilities to the patient, the patient's family and the professions of echocardiography. Transporting critically ill patients and recognizing emergency situations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO227 - Basic ECG Recognition/ Testing

Overview

Course Subject Code
ECHO

Course Number
227

Course Title
Basic ECG Recognition/Testing

Department
Health Sciences

Course Description
Basics of ECG testing, heart pressures, blood volume/physiology and the electrical conduction system. Focus on interpretation of ECG rhymes: normal ECG, ventricular hypertrophy, bundle branch block, AV block, myocardial ischemia, bradycardia, tachycardia, atrial fibrillation, ventricular fibrillation and irregular rhythms.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO231 - Echocardiography I

Overview

Course Subject Code
ECHO

Course Number
231

Course Title
Echocardiography I

Department
Medical Imaging Technology

Course Description
An introduction to scanning techniques and tomographic views according to the American Society of Echocardiography standards. B-mode image, pulsed and continuous wave Doppler, and color flow imaging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO232 - Echocardiography II

Overview

Course Subject Code
ECHO

Course Number
232

Course Title
Echocardiography II

Department
Medical Imaging Technology

Course Description
An intermediate level of instruction in scanning techniques with tomographic views according to the American Society of Echocardiography standards. Emphasis on cardiac pathology and the echocardiography evaluation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO307 - Seminar

Overview

Course Subject Code
ECHO

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO320 - Cardiographic Methods

Overview

Course Subject Code
ECHO

Course Number
320

Course Title
Cardiographic Methods

Department
Medical Imaging Technology

Course Description
Recognition of ECG tracing with normal and abnormal arrhythmias, treadmill testing, Holter monitoring, phonocardiography, and heart auscultation. Review of case examples for analysis and synthesis. Integration of cardiographic monitoring methods with cardiac ultrasound imaging. Review of cardiac anatomy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO321 - Stress & Transesophageal Echo

Overview

Course Subject Code
ECHO

Course Number
321

Course Title
Stress & Transesophageal Echo

Department
Medical Imaging Technology

Course Description
Cardiac applications, protocols, and techniques related to stress echo and transesophageal echo. TEE anatomy, acquisition of images and the cardiovascular operating room. Particular emphasis on the mitral valve and surgical repairs. Prerequisite: Admission to Echocardiography program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO325 - Pediatric Echo

Overview

Course Subject Code
ECHO

Course Number
325

Course Title
Pediatric Echo

Department
Medical Imaging Technology

Course Description
Congenital heart disease, including neonate/infant and adult disorders. Congenital disorders including cardiac situs, ventricular morphology, great artery connections, valvular and subvalvular obstruction, atrial septal defect, ventricular septal defect.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO332 - Invasive Cardiology

Overview

Course Subject Code
ECHO

Course Number
332

Course Title
Invasive Cardiology

Department
Medical Imaging Technology

Course Description
Cardiac catheterization testing. Coronary artery interventions such as percutaneous transluminal coronary intervention (PCI), and chamber pressure measurements.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO333 - Echocardiography III

Overview

Course Subject Code
ECHO

Course Number
333

Course Title
Echocardiography III

Department
Medical Imaging Technology

Course Description
An advanced level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Cardiac pathology, and advanced methods in echocardiography.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO334 - Echocardiography IV

Overview

Course Subject Code
ECHO

Course Number
334

Course Title
Echocardiography IV

Department
Medical Imaging Technology

Course Description
An advanced level of instruction in scanning techniques and tomographic views according to the American Society of Echocardiography standards. Special topics including 3-D, 4-D, tissue Doppler, cardiac resynchronization and other technological advances.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO376 - Survey of Vascular Testing

Overview

Course Subject Code
ECHO

Course Number
376

Course Title
Survey of Vascular Testing

Department
Medical Imaging Technology

Course Description
Basic vascular pathophysiology in carotid, arterial, and venous testing. Waveform recognition, interpretation, and protocols for testing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO385 - Echo Lab Management

Overview

Course Subject Code
ECHO

Course Number
385

Course Title
Echo Lab Management

Department
Medical Imaging Technology

Course Description
Focus on human resource skills as necessary to manage an echocardiography laboratory. Includes the interview process, hiring and firing, as well as employee performance evaluation. Other topics will include reimbursement, licensure, accreditation and other management issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO388 - Externship Preparation

Overview

Course Subject Code
ECHO

Course Number
388

Course Title
Externship Preparation

Department
Medical Imaging Technology

Course Description
Review and summarization of key concepts in Echocardiography. Focus on patient care and interpersonal scenarios the student will likely face in the hospital environment or independent echo lab. Review and interpretation of case studies in preparation for clinical analysis and documentation using structured reporting systems. Review and discussion of the Echocardiography Externship Handbook.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

ECHO407 - Seminar

Overview

Course Subject Code
ECHO

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO420 - Echo Externship

Overview

Course Subject Code
ECHO

Course Number
420

Course Title
Echo Externship

Department
Medical Imaging Technology

Course Description
Students work as registered professionals in the field and must complete nine months (three quarters) of experience in Echocardiography. Prerequisite: Admission to Echocardiography Degree Completion program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
40

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO420A - Echo Externship

Overview

Course Subject Code
ECHO

Course Number
420A

Course Title
Echo Externship

Department
Medical Imaging Technology

Course Description
Students work as registered professionals in the field. Patient echo exams with normal and abnormal stress tests, normal and abnormal wall motion. Case study presentation. Prerequisite: Admission to Echocardiography Degree Completion program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
8

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
22

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
8

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
22

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECHO420B - Echo Externship

Overview

Course Subject Code
ECHO

Course Number
420B

Course Title
Echo Externship

Department
Medical Imaging Technology

Course Description
Students work as registered professionals in the field. Cardiac surgical echoes (TEE) and contrast studies using various pharmacological agents. Case study presentation. Prerequisite: Admission to Echocardiography Degree Completion program

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
7

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
7

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECO000 - Economics Elective

Overview

Course Subject Code
ECO

Course Number
000

Course Title
Economics Elective

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

ECO00U - Economics Elective Upper

Overview

Course Subject Code
ECO

Course Number
00U

Course Title
Economics Elective Upper

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

ECO107 - Seminar

Overview

Course Subject Code
ECO

Course Number
107

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECO201 - Principles of Economics, Micro

Overview

Course Subject Code
ECO

Course Number
201

Course Title
Principles of Economics, Micro

Department
Management

Course Description
Topics include scarcity, consumer choice, supply and demand, elasticity, cost and pricing theory, theory of market structures (competition, monopoly, monopolistic competition, oligopoly).

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECO201Z - Principles of Microeconomics

Overview

Course Subject Code
ECO

Course Number
201Z

Course Title
Principles of Microeconomics

Department
Management

Course Description
Examines how consumers and firms make choices when facing scarce resources, and how those choices are related to government policy and market outcomes, such as prices and output.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- MATH111 - College Algebra (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH253Z - Calculus: Sequences and Series

OR

Earn a minimum grade (UG) of D in the following:
- MATH252Z - Integral Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH251Z - Differential Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH111Z - Precalculus I: Functions

OR

Earn a minimum grade (UG) of D in the following:
- MATH112Z - Precalculus II: Trigonometry

OR

Earn a minimum grade (UG) of D in the following:
- MATH254 - Vector Calculus I

OR

Earn a minimum grade (UG) of D in the following:

- MATH253 - Sequences and Series

OR

Earn a minimum grade (UG) of D in the following:
- MATH105 - Collegiate Mathematics (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH100 - Intermediate Algebra

OR

Earn a minimum grade (UG) of D in the following:
- MATH371 - Finite Math/Calc I

OR

Earn a minimum grade (UG) of D in the following:
- MATH361 - Statistical Methods I

OR

Earn a minimum grade (UG) of D in the following:
- MATH254N - Vector Calculus I (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH253N - Sequences and Series (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH252 - Integral Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH251 - Differential Calculus

OR

Earn a minimum grade (UG) of D in the following:

- MATH112 - Trigonometry (Inactive)

OR

A minimum test score of '111' on Test OMPC

OR

A minimum test score of '046' on Test OALEKS

OR

A minimum test score of '057' on Test OCLM

Additional Comments:

ECO202 - Principles of Economics, Macro

Overview

Course Subject Code
ECO

Course Number
202

Course Title
Principles of Economics, Macro

Department
Management

Course Description
An introduction to the economic problem. Topics include gross domestic product, unemployment, monetary policy, fiscal policy, macro equilibrium, inflation, and supply and demand.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ECO202Z - Principles of Macroeconomics

Overview

Course Subject Code
ECO

Course Number
202Z

Course Title
Principles of Macroeconomics

Department
Management

Course Description
Examines the aggregate activity of a market economy, economic growth, inflation, unemployment, and the use of fiscal and monetary policy to address macroeconomic problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- MATH111 - College Algebra (Inactive)

OR

A minimum test score of '020' on Test OCLM

OR

A minimum test score of '046' on Test OALEKS

OR

A minimum test score of '100' on Test OMPC

OR

Earn a minimum grade (UG) of D in the following:
- MATH112 - Trigonometry (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH251 - Differential Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH252 - Integral Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH253N - Sequences and Series (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH254N - Vector Calculus I (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH361 - Statistical Methods I

OR

Earn a minimum grade (UG) of D in the following:
- MATH253Z - Calculus: Sequences and Series

OR

Earn a minimum grade (UG) of D in the following:
- MATH251Z - Differential Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH252Z - Integral Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH112Z - Precalculus II: Trigonometry

OR

Earn a minimum grade (UG) of D in the following:
- MATH111Z - Precalculus I: Functions

OR

Earn a minimum grade (UG) of D in the following:
- MATH254 - Vector Calculus I

OR

Earn a minimum grade (UG) of D in the following:
- MATH253 - Sequences and Series

OR

Earn a minimum grade (UG) of D in the following:
- MATH105Z - Math in Society

OR

Earn a minimum grade (UG) of D in the following:
- MATH105 - Collegiate Mathematics (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH100 - Intermediate Algebra

OR

Earn a minimum grade (UG) of D in the following:
- MATH371 - Finite Math/Calc I

Additional Comments:

ECO207 - Seminar

Overview

Course Subject Code
ECO

Course Number
207

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECO307 - Seminar

Overview

Course Subject Code
ECO

Course Number
307

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ECO407 - Seminar

Overview

Course Subject Code
ECO

Course Number
407

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE107 - Seminar

Overview

Course Subject Code
EE

Course Number
107

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE131 - Digital Electronics I

Overview

Course Subject Code
EE

Course Number
131

Course Title
Digital Electronics I

Department
Electrical & Renewable Energy

Course Description
Introduction to combinational logic, gates, Boolean Algebra, Karnaugh Mapping, Number Systems/Codes, arithmetic circuits, decoders/encoders, mux/demux, comparators, basic sequential gates (Latches/FF) and introduction to HDL (Verilog/VHDL), PLD HW implementation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE133 - Digital Electronics II

Overview

Course Subject Code
EE

Course Number
133

Course Title
Digital Electronics II

Department
Electrical & Renewable Energy

Course Description
Introduction to sequential logic with HDL, review latches and flip/flops, timers, counters/registers, HDL implementation, PLD HW implementation, finite state machine design/analysis, logic testing and timing analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE207 - Seminar

Overview

Course Subject Code
EE

Course Number
207

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
10

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
10

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
10

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
10

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE221 - Circuits I

Overview

Course Subject Code
EE

Course Number
221

Course Title
Circuits I

Department
Electrical & Renewable Energy

Course Description
Introductory course in linear circuit analysis. Topics include: Ohm's law, Kirchhoff's laws, nodal analysis,mesh analysis, source transformations, Thévenin and Norton equivalent circuits, maximum power transfer, operational amplifiers, inductance, capacitance, and first-order transient circuit response.Students must also register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE223 - Circuits II

Overview

Course Subject Code
EE

Course Number
223

Course Title
Circuits II

Department
Electrical & Renewable Energy

Course Description
Introductory course in linear circuit analysis. Second-order transient circuit analysis, phasors, sinusoidal steady-state analysis, phasor-domain nodal, mesh analysis; phasor Thévenin and Norton equivalent circuits, AC power, three-phase circuits, magnetically coupled circuits and transformers. Students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE225 - Circuits III

Overview

Course Subject Code
EE

Course Number
225

Course Title
Circuits III

Department
Electrical & Renewable Energy

Course Description
Introductory course in linear circuit analysis. Transfer functions, frequency response, Bode plots, passive and active filters, Laplace transforms, Fourier series, Fourier transforms, and two-port networks. Students must also register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE307 - Seminar

Overview

Course Subject Code
EE

Course Number
307

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE320 - Adv Circuit Systems Analysis

Overview

Course Subject Code
EE

Course Number
320

Course Title
Adv Circuit Systems Analysis

Department
Electrical & Renewable Energy

Course Description
Methods of circuit analysis and circuit theorems. Introduction to the Laplace transform and its applications. Advanced circuit analysis using Laplace transform techniques. Transfer function analysis. Impulse and frequency response of circuits and systems. Bode plots. Stability.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE321 - Electronics I

Overview

Course Subject Code
EE

Course Number
321

Course Title
Electronics I

Department
Electrical & Renewable Energy

Course Description
Basic semiconductor theory. Diodes and diode circuits. Bipolar-junction transistor (BJT). Ebers-Moll model. BJT amplifiers (CE, CB & CD). Multistage and differential amplifiers. Metal-Oxide-Semiconductor Field-Effect Transistor (MOSFET). MOSFET amplifiers (CS, CG & CD). Multistage MOSFET amplifiers. Op-Amps.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE323 - Electronics II

Overview

Course Subject Code
EE

Course Number
323

Course Title
Electronics II

Department
Electrical & Renewable Energy

Course Description
Current sources. Current mirrors. Cascade active loads. Multistage amplifiers. Differential amplifiers. Frequency response. Miller's theorem. Negative feedback amplifier types: Voltage, Current, transconductance and transresistance. Stability and pole location. Gain and phase margins. Frequency compensation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE325 - Electronics III

Overview

Course Subject Code
EE

Course Number
325

Course Title
Electronics III

Department
Electrical & Renewable Energy

Course Description
Real operational amplifiers and basic circuits. Output stages. Power amplifiers. Filters, passive and active. Oscillators. Wave-shaping circuits. D/A and A/D circuits.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE331 - Digital System Design w/HDL

Overview

Course Subject Code
EE

Course Number
331

Course Title
Digital System Design w/HDL

Department
Electrical & Renewable Energy

Course Description
Introduction to digital systems design with Hardware Description Languages (HDL). Topics include dataflow, behavioral and structural modeling, hierarchical design, programmable logic, 10 standards, and timing diagrams. Students will design and implement digital circuits which include cou·nters, state machines, digital arithmetic, and external interfaces.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE333 - Intro to Microcontrollers

Overview

Course Subject Code
EE

Course Number
333

Course Title
Intro to Microcontrollers

Department
Electrical & Renewable Energy

Course Description
Introductory course in microcontroller design. Topic include interrupt controller, time/counters, A/D converters, PWM channels, USARTs, SPI, two-wire interfaces, LEDs, LCDs, motors, and various sensors. Hands-on projects or lab assignments require C and/or assembly language programming to develop applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE335 - Advanced Microcontrollers

Overview

Course Subject Code
EE

Course Number
335

Course Title
Advanced Microcontrollers

Department
Electrical & Renewable Energy

Course Description
Advanced course in design and development of micro-controller-based systems. Topics include internal peripheral devices, external devices interfacing, and micro-controller system design. Learning objectives are accomplished through design of fully integrated projects or lab assignments using C and/or assemble language programming.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE341 - Electricity/Magnetism w/Transm

Overview

Course Subject Code
EE

Course Number
341

Course Title
Electricity/Magnetism w/Transm

Department
Electrical & Renewable Energy

Course Description
Review vector calculus. Flux, potential, gradient, divergence, curl and field intensity. Static electric and magnetic fields. Maxwell's equations. Boundary conditions. Uniform plane waves in media and free space. Reflection and transmission at interfaces. Propagation of guided waves. Transmission line. Antennas.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE343 - Solid State Electronic Devices

Overview

Course Subject Code
EE

Course Number
343

Course Title
Solid State Electronic Devices

Department
Electrical & Renewable Energy

Course Description
Crystal properties and growth of semiconductors. Atoms and electrons. Energy bands and charge carriers in semiconductors. Excess carriers in semiconductors, p-n junctions. FETs and BJTs. Optoelectronic devices. High-frequency and high-power devices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

EE401 - Communication Systems

Overview

Course Subject Code
EE

Course Number
401

Course Title
Communication Systems

Department
Electrical & Renewable Energy

Course Description
Signal Analysis, Fourier series, Fourier Transforms; analog signal transmission and Reception (AM, FM, PM); effects of noise in Analog Systems. Digital Data and Communication Systems; effects of noise in Digital Systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE407 - Seminar

Overview

Course Subject Code
EE

Course Number
407

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE419 - Power Electronics

Overview

Course Subject Code
EE

Course Number
419

Course Title
Power Electronics

Department
Electrical & Renewable Energy

Course Description
Power electronic device characterization. Rectifiers, DC-DC converters and inverters design, modeling, and build.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE430 - Linear Sys & Digital Signal

Overview

Course Subject Code
EE

Course Number
430

Course Title
Linear Sys & Digital Signal

Department
Electrical & Renewable Energy

Course Description
Introduction to signals and systems. Spectral analysis techniques. Fourier Series and the continuous-time Fourier transform (CTFT). Discrete-time Fourier transform (DTFT) and digital Fourier transform (DFT). Computational spectral analysis using the FFT. FIR and IIR filters. Z-transform. Practical implementation of digital filters and computational spectral analysis using MATLAB.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE432 - Advanced Digital System Design

Overview

Course Subject Code
EE

Course Number
432

Course Title
Advanced Digital System Design

Department
Electrical & Renewable Energy

Course Description
Advanced digital system design with Field Programmable Gate Arrays (FPGAs). Students implement designs with pre-generated and custom digital logic functions using VHDL and/or Verilog hardware description languages. Projects include digital systems design, simulations, and hardware implementation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE435 - Embedded Systems

Overview

Course Subject Code
EE

Course Number
435

Course Title
Embedded Systems

Department
Electrical & Renewable Energy

Course Description
Advanced course in embedded systems hardware design and development. Topics include system-on-chip design, ARM processor architecture, digital signal processors, multi-core processing, vector processors, graphics processing units, external serial interfaces, external memory interfaces, network interfaces, debuggers, in-circuit emulators, and hardware security.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

EE448 - Geometric Optics

Overview

Course Subject Code
EE

Course Number
448

Course Title
Geometric Optics

Department
Electrical & Renewable Energy

Course Description
Reflection and refraction at plane and curved surfaces; imaging properties of lenses; first-order Gaussian optics and thin-lens system layout; matrix optics; ray-tracing software; spherical and chromatic aberrations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE455 - Embedded Systems II

Overview

Course Subject Code
EE

Course Number
455

Course Title
Embedded Systems II

Course Description
Advanced course in embedded systems design and development. Topics include bootloaders, interrupts, embedded operating systems, memory management systems, file systems, device drivers, makefiles, software revision control, software profiling, software debugging, and development of embedded software applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE460 - Comput Data Science & Big Data

Overview

Course Subject Code
EE

Course Number
460

Course Title
Comput Data Science & Big Data

Department
Electrical & Renewable Energy

Course Description
Applied data science, statistical techniques for data science, applied machine learning, big data analysis, big data processing, visualization and representation, applied computational & mathematical methods for data science, data analytics, applied text mining and network analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

EE461 - Cntrl Engr I:Classical Methods

Overview

Course Subject Code
EE

Course Number
461

Course Title
Cntrl Engr I:Classical Methods

Department
Electrical & Renewable Energy

Course Description
An introduction to the design and compensation of linear control systems using a complex frequency-domain approach. Feedback control of first- and second-order systems, controller sensitivity, disturbance rejection, stability, frequency response methods. Introduction to state-space modeling. Computer simulation of feedback control systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE462 - RF/Wireless Systems

Overview

Course Subject Code
EE

Course Number
462

Course Title
RF/Wireless Systems

Department
Electrical & Renewable Energy

Course Description
Hardware components, system parameters, and architectures of RF and microwave wireless systems. Topics include microwave transmission lines, Smith charts, impedance matching networks, antenna systems, microwave components, receivers and transmitters, radar systems and sensors, and wireless communication systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

EE485 - Printed Circuit Board Design

Overview

Course Subject Code
EE

Course Number
485

Course Title
Printed Circuit Board Design

Department
Electrical & Renewable Energy

Course Description
A course on modern PCB technology and design skills required for successful implementation of PCB designs in industry. This course provides direct, hands-on experience with industry standards, tools, and design techniques. Students will learn schematic capture and PCB layout.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

EE501 - Communication Systems

Overview

Course Subject Code
EE

Course Number
501

Course Title
Communication Systems

Department
Electrical & Renewable Energy

Course Description
Single Analysis, Fourier series, Fourier Transforms; Analog signal transmission and Reception (AM, FM, PM); effects of noise in Analog Systems. Digital Data and Communication Systems; effects of noise in Digital Systems. Cross-listed with EE 401. Graduate standing required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
4

Lab Hours Operator
TO

Pre-Requisites

No Requirements

EE507 - Seminar

Overview

Course Subject Code
EE

Course Number
507

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EE519 - Power Electronics

Overview

Course Subject Code
EE

Course Number
519

Course Title
Power Electronics

Department
Electrical & Renewable Energy

Course Description
Power electronic device characterization. Rectifiers, DC-DC converters and inverters design, modeling, and build.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE524 - Advanced Control Engineering

Overview

Course Subject Code
EE

Course Number
524

Course Title
Advanced Control Engineering

Department
Electrical & Renewable Energy

Course Description
Advanced modeling of continuous and discrete processes suitable for use in control system design. State functions, state equations, transfer matrices. State-space model building, state-feedback control and observation, pole placement, linear transformations of state vectors. Introduction to discrete-time control systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

EE530 - Linear Sys & Digital Sig Prcsg

Overview

Course Subject Code
EE

Course Number
530

Course Title
Linear Sys & Digital Sig Prcsg

Department
Electrical & Renewable Energy

Course Description
Introduction to signals and systems. Spectral analysis techniques. Fourier Series and the continuous-time Fourier transform (CTFT). Discrete-time Fourier transform (DTFT) and digital Fourier transform (DFT). Computational spectral analysis using the FFT. FIR and IIR filters. Z-transform. Practical implementation of digital filters and computational spectral analysis using CAD tools.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

EE532 - Advanced Digital System Design

Overview

Course Subject Code
EE

Course Number
532

Course Title
Advanced Digital System Design

Department
Electrical & Renewable Energy

Course Description
Advanced digital system design with Field Programmable Gate Arrays (FPGAs). Students implement designs with pre-generated and custom digital custom logic functions using VHDL and/or Verilog hardware description languages. Projects include digital system design, simulation, and hardware implementation. Cross listed with EE 432. MSE Graduate Standing required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

EE535 - Embedded Systems Hardware

Overview

Course Subject Code
EE

Course Number
535

Course Title
Embedded Systems Hardware

Department
Electrical & Renewable Energy

Course Description
Advanced course in embedded systems hardware design and development. Topics include system-on-chip design, ARM processor architecture, digital signal processors, multicore processing, vector

processors, graphics processing units, external serial interfaces, external memory interfaces, network interfaces, debuggers, in-circuit emulators, and hardware security. Cross-listed with EE 435. MSE Graduate Standing required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE548 - Geometric Optics

Overview

Course Subject Code
EE

Course Number
548

Course Title
Geometric Optics

Department
Electrical & Renewable Energy

Course Description
Reflection and refraction at plane and curved surfaces; imaging properties of lenses; first-order Gaussian optics and thin-lens system layout; matrix optics; ray-tracing software; spherical and chromatic aberrations.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EE552 - Waveguides & Fiber Optics

Overview

Course Subject Code
EE

Course Number
552

Course Title
Waveguides & Fiber Optics

Department
Electrical & Renewable Energy

Course Description
Light propagation in fibers and waveguides; termination, coupling, and splicing of fibers; fiber optic communication; optical time domain reflectometry, fiber amplifiers, and fiber sensors.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

EE561 - Ctrl Engr I: Classic Methods

Overview

Course Subject Code
EE

Course Number
561

Course Title
Ctrl Engr I: Classic Methods

Department
Electrical & Renewable Energy

Course Description
An introduction to the design and compensation of linear control systems using a complex frequency-domain approach. Feedback control of first- and second-order systems, controller sensitivity, disturbance rejection, stability, frequency response methods. Introduction to state-space modeling. Computer simulation of feedback control systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

EE585 - Printed Circuit Board Design

Overview

Course Subject Code
EE

Course Number
585

Course Title
Printed Circuit Board Design

Department
Electrical & Renewable Energy

Course Description
A course on modern PCB technology and design skills required for successful implementation of PCB designs in industry. This course provides direct, hands-on experience with industry standards, tools, and design techniques. Students will learn schematic capture and PCB layout. Cross-listed with EE 485.MSE Graduate Standing required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

EE597 - Graduate Project

Overview

Course Subject Code
EE

Course Number
597

Course Title
Graduate Project

Department
Electrical & Renewable Energy

Course Description
Graduate project in electrical, computer, and embedded engineering topics. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

EE598 - Graduate Thesis

Overview

Course Subject Code
EE

Course Number
598

Course Title
Graduate Thesis

Department
Electrical & Renewable Energy

Course Description
Graduate thesis in electrical, computer, and embedded engineering topics. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EET000 - EET Lower Division Elective

Overview

Course Subject Code
EET

Course Number
000

Course Title
EET Lower Division Elective

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Pre-Requisites

No Requirements

EET301P - Topics in Network Analys

Overview

Course Subject Code
EET

Course Number
301P

Course Title
Topics in Network Analys

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Pre-Requisites

No Requirements

EMS107 - Seminar

Overview

Course Subject Code
EMS

Course Number
107

Course Title
Seminar

Department
Emergency Medical Services

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS115 - Introduction to EMS

Overview

Course Subject Code
EMS

Course Number
115

Course Title
Introduction to EMS

Department
Emergency Medical Services

Course Description
Introduces the fundamentals of an emergency medical services system, history, and professional roles and responsibilities. Discusses medical/legal and ethical issues, research and evidence based practice.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS150 - Accelerated EMT

Overview

Course Subject Code
EMS

Course Number
150

Course Title
Accelerated EMT

Department
Emergency Medical Services

Course Description
Accelerated Emergency Medical Technician course for an entry-level career in emergency medical services. The course introduces students to the EMS system, professional attributes of an EMT, and recognition and treatment of specific illnesses and injuries. The course includes a minimum of 16-hours of emergency room and ambulance experience. Successful course completion fulfills the education requirement to petition for Oregon and NREMT certification examinations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS151 - Emerg Med Tech (EMT) I

Overview

Course Subject Code
EMS

Course Number
151

Course Title
Emerg Med Tech (EMT) I

Department
Emergency Medical Services

Course Description
The first of two courses required for an entry-level career in emergency medical services. The course introduces students to the EMS system, professional attributes of an EMT, ambulance operations and the basic knowledge and skills of an EMT. Prerequisite: Current CPR certification

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS152 - Emerg Med Tech (EMT) II

Overview

Course Subject Code
EMS

Course Number
152

Course Title
Emerg Med Tech (EMT) II

Department
Emergency Medical Services

Course Description
The second of two course focuses on the basic recognition and treatment of specific illnesses and injuries. The course includes 16-hours clinical and ambulance experience. Students successfully completing the course are eligible for Oregon and national certification examinations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS190 - EMT Externship

Overview

Course Subject Code
EMS

Course Number
190

Course Title
EMT Externship

Department
Emergency Medical Services

Course Description
EMS field experience with an affiliated transport agency. Students work at a BLS level under the direct supervision on one of the local EMS agency ambulances.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS207 - Seminar

Overview

Course Subject Code
EMS

Course Number
207

Course Title
Seminar

Department
Emergency Medical Services

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab, SR GR Capstone Project COOP, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS211 - Prehospital Emerg Pharmacology

Overview

Course Subject Code
EMS

Course Number
211

Course Title
Prehospital Emerg Pharmacology

Department
Emergency Medical Services

Course Description
Lectures relating specific emergencies to the types of medications used for treatment. Includes classifications, actions, indications, administration and dosages, precautions and side effects of each of the medications used in prehospital treatment of medical and traumatic emergencies. In addition, students learn common prescription medications found in the home.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS218 - Trauma Emergencies

Overview

Course Subject Code
EMS

Course Number
218

Course Title
Trauma Emergencies

Department
Emergency Medical Services

Course Description
Introduces the epidemiology and kinematics of trauma, and integrates the assessment findings with pathophysiology in the management of the acutely injured patient. Discusses considerations for special patient populations and includes a Prehospital Trauma Life Support Course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS231 - Medical Emergencies

Overview

Course Subject Code
EMS

Course Number
231

Course Title
Medical Emergencies

Department
Emergency Medical Services

Course Description
The first in a series of three courses addressing the epidemiology and pathophysiology of various medical complaints; integrates assessment findings with the formulation of a treatment plan for the acute illness.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS232 - Medical Emergencies II

Overview

Course Subject Code
EMS

Course Number
232

Course Title
Medical Emergencies II

Department
Emergency Medical Services

Course Description
A continuation of the series of three courses addressing the epidemiology and pathophysiology of various medical complaints; integrates assessment findings with the formulation of a treatment plan for the acute illness.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS235 - Basic Electrocardiography

Overview

Course Subject Code
EMS

Course Number
235

Course Title
Basic Electrocardiography

Department
Emergency Medical Services

Course Description
Fundamentals of electrocardiography and interpretation of normal and abnormal ECG patterns. Normal and abnormal wave patterns, presentation and treatment of common cardiac diseases.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS236 - Advanced Electrocardiography

Overview

Course Subject Code
EMS

Course Number
236

Course Title
Advanced Electrocardiography

Department
Emergency Medical Services

Course Description
Building upon basic EKG knowledge, this course advances into 12-lead EKG interpretation and prehospital treatment. Focusing on signs and symptoms of ischemia or infarction, axis deviation, and other EKG anomalies, students learn about various treatment modalities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS237 - Paramedic 12-Leads

Overview

Course Subject Code
EMS

Course Number
237

Course Title
Paramedic 12-Leads

Department
Emergency Medical Services

Course Description
Building upon knowledge that was presented in EMS 236, this course explores 12-lead ECG interpretation further, and specifically how this skill can be used by paramedics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS241 - Paramed Crisis Resrce Mgmt I

Overview

Course Subject Code
EMS

Course Number
241

Course Title
Paramed Crisis Resrce Mgmt I

Department
Emergency Medical Services

Course Description
The first in a series of 3 courses addressing human factors contribution to EMS scene management. PCRM I focuses on human error, perception modalities, human emotion and motivation, and teamwork theory.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS242 - Paramed Crisis Resrce Mgmt II

Overview

Course Subject Code
EMS

Course Number
242

Course Title
Paramed Crisis Resrce Mgmt II

Department
Emergency Medical Services

Course Description
The second course in a series of 3 addressing the theory and practice of human factors contribution to EMS scene management. PCRM II focuses on the following human factor contributions to scene performance; review of acute healthcare environment challenges, cognitive attention, and crisis communication strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS243 - Paramed Crisis Resrce Mgmt III

Overview

Course Subject Code
EMS

Course Number
243

Course Title
Paramed Crisis Resrce Mgmt III

Department
Emergency Medical Services

Course Description
The third class in a series of 3 courses addressing the theory and practice of human factors contribution to EMS scene management. PCRM III focuses on the following human factor contributions to scene performance; stress and coping on decision-making, on-scene leadership characteristics, and organizational influences on error.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS271 - Paramedic Skills Lab I

Overview

Course Subject Code
EMS

Course Number
271

Course Title
Paramedic Skills Lab I

Department
Emergency Medical Services

Course Description
The first of three courses reviews EMT level skills and introduces the advanced level paramedic skills. Students learn safe and effective skills performance and begin to integrate assessment, management and skills performance.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS272 - Paramedic Skills Lab II

Overview

Course Subject Code
EMS

Course Number
272

Course Title
Paramedic Skills Lab II

Department
Emergency Medical Services

Course Description
The second course in the series continues the development of advanced level skills proficiency. Students integrate knowledge of specific patient complaints with assessment and management skills.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS273 - Paramedic Skills Lab III

Overview

Course Subject Code
EMS

Course Number
273

Course Title
Paramedic Skills Lab III

Department
Emergency Medical Services

Course Description
This course is designed to strengthen the students team lead abilities and to enhance critical thinking and decision making skills through scenario based skills practice sessions. Students prepare for national certification practical exam stations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS283 - Clinical Practicum I

Overview

Course Subject Code
EMS

Course Number
283

Course Title
Clinical Practicum I

Department
Emergency Medical Services

Course Description
Focusing on the emergency medical practices of a paramedic, students integrate classroom studies into clinical practices while working under the direct supervision of health care professionals.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS284 - Clinical Practicum II

Overview

Course Subject Code
EMS

Course Number
284

Course Title
Clinical Practicum II

Department
Emergency Medical Services

Course Description
Students integrate knowledge and skills with patient care practices as they rotate through clinical experience in a variety of medical specialties. Students work under the direct supervision of health care professionals in each medical specialty.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/Practicum, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course CHE210
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- CHE210 - Clinical Pharmacology

Additional Comments:

A minimum grade of 'D' in Course EMS271
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- EMS271 - Paramedic Skills Lab I

Additional Comments:

A minimum grade of 'D' in Course EMS241
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- EMS241 - Paramed Crisis Resrce Mgmt I

Additional Comments:

A minimum grade of 'D' in Course EMS235
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- EMS235 - Basic Electrocardiography

Additional Comments:

A minimum grade of 'D' in Course EMS231
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- EMS231 - Medical Emergencies

Additional Comments:

A minimum grade of 'D' in Course EMS218
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- EMS218 - Trauma Emergencies

Additional Comments:

EMS291 - Paramed Capstone I

Overview

Course Subject Code
EMS

Course Number
291

Course Title
Paramed Capstone I

Department
Emergency Medical Services

Course Description
The first of two field experience courses with an affiliated advanced life support agency. Students complete an orientation to the field and work under the direct supervision of a paramedic preceptor responding to 911 emergency calls.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS292 - Paramed Capstone II

Overview

Course Subject Code
EMS

Course Number
292

Course Title
Paramed Capstone II

Department
Emergency Medical Services

Course Description
The continuation of the field experience courses with an affiliated advanced life support agency. Students work in the field and work under the direct supervision of a paramedic preceptor responding to 911 emergency calls.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
36

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
36

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS307 - Seminar

Overview

Course Subject Code
EMS

Course Number
307

Course Title
Seminar

Department
Emergency Medical Services

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS331 - Critical Care Transport

Overview

Course Subject Code
EMS

Course Number
331

Course Title
Critical Care Transport

Department
Emergency Medical Services

Course Description
The first of two courses is designed to prepare paramedics to provide advanced critical care during transports, including performing advanced clinical patient assessments and providing invasive care beyond the standard scope of advanced pre-hospital care.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
5

Contact Hours

Contact Hours Min
5

Billing Hours

Billing Hours Min
5

Lecture Hours

Lecture Hours Min
5

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

EMS332 - Critical Care Transport II

Overview

Course Subject Code
EMS

Course Number
332

Course Title
Critical Care Transport II

Department
Emergency Medical Services

Course Description
The second of two courses designed to prepare paramedics to provide critical care during transports, including performing advanced assessment and patient management beyond standard paramedic scope.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS382 - Critical Care Clinic Practicum

Overview

Course Subject Code
EMS

Course Number
382

Course Title
Critical Care Clinic Practicum

Department
Emergency Medical Services

Course Description
This practicum class immerses the student into various critical care environments. Rotations involve targeted objectives in laboratory and imaging interpretation, ventilation strategy and infusion strategy as they relate to patient transport and treatment plans. Each rotation involves focus on different physiological systems and multi system assessment and management.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS407 - Seminar

Overview

Course Subject Code
EMS

Course Number
407

Course Title
Seminar

Department
Emergency Medical Services

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS444 - EMS Systems, Lead & Mgt

Overview

Course Subject Code
EMS

Course Number
444

Course Title
EMS Systems, Lead & Mgt

Department
Emergency Medical Services

Course Description
Explores the fundamental skills of managing and leading in EMS: concepts, principles and practices of leaders in the EMS industry. Case study discussions and analysis. Examines EMS systems, operations, resources and regulation of EMS. Industry leaders provide guest lectures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS456 - Research Methods in EMS

Overview

Course Subject Code
EMS

Course Number
456

Course Title
Research Methods in EMS

Department
Emergency Medical Services

Course Description
An introductory course in EMS research covering hypothesis formulation, design and use of data-gathering instruments, data collection, and methods of data analysis and presentation. Research and technical reports appearing in professional publications and archives are examined.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

EMS496 - EMS Capstone Project I

Overview

Course Subject Code
EMS

Course Number
496

Course Title
EMS Capstone Project I

Department
Emergency Medical Services

Course Description
Students formulate a detailed plan for a project or independent research study within the EMS industry. Project plan will include topic outline and goals, timeline, industry contacts. Faculty advisor will be assigned.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

EMS497 - EMS Capstone Project II

Overview

Course Subject Code
EMS

Course Number
497

Course Title
EMS Capstone Project II

Department
Emergency Medical Services

Course Description
Implementation and completion of student project planned in EMS 496. Project results to be delivered in a report presented to an audience of EMS peers. Students will have scheduled meeting with a faculty advisor to track progress and determine readiness for presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR101 - Intro to Engineering I

Overview

Course Subject Code
ENGR

Course Number
101

Course Title
Intro to Engineering I

Department
Civil Engineering

Course Description
Introduces the student to engineering with a focus on academic success, professional development, ethics, communication, and creative problem solving techniques, engineering tools (CAD/CAE), and design concepts. A discipline-specific team-based laboratory experience encourages consideration of a chosen engineering discipline.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR102 - Intro to Engineering II

Overview

Course Subject Code
ENGR

Course Number
102

Course Title
Intro to Engineering II

Department
Electrical & Renewable Energy

Course Description
The student will focus on their chosen discipline through an interdisciplinary team-based design project including problem identification, measurement, analysis, and presentation to peers. Emphasis will be placed on proper usage of engineering tools and instruments and sound design practices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR107 - Seminar

Overview

Course Subject Code
ENGR

Course Number
107

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR111 - MMET Orientation

Overview

Course Subject Code
ENGR

Course Number
111

Course Title
MMET Orientation

Department
Manufacturing & Mechanical Eng

Course Description
Topics include: survey of the engineering profession, educational and professional development, standards of practice; engineering information, calculations, and analysis. An engineering design project will be incorporated. This course provides knowledge and skills to engineering students which will benefit their future academic and professional endeavors. Prerequisite: Declared major in BSME, BSMET, or BSMFG program

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR207 - Seminar

Overview

Course Subject Code
ENGR

Course Number
207

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR211 - Engineering Mechanics: Statics

Overview

Course Subject Code
ENGR

Course Number
211

Course Title
Engineering Mechanics: Statics

Department
Manufacturing & Mechanical Eng

Course Description
Fundamental principles of mechanics of rigid bodies and the application of these principles to engineering problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR212 - Engineering Mech: Dynamics

Overview

Course Subject Code
ENGR

Course Number
212

Course Title
Engineering Mech: Dynamics

Department
Manufacturing & Mechanical Eng

Course Description
Kinematics of particles and rigid bodies. Kinetics of particles and rigid bodies in plane motion, including Newton's second law, work and energy, and impulse and momentum.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR213 - Engr Mech: Strength of Mat

Overview

Course Subject Code
ENGR

Course Number
213

Course Title
Engr Mech: Strength of Mat

Department
Manufacturing & Mechanical Eng

Course Description
Internal stresses and deformations of structural members and machines when subjected to external forces.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR236 - Fund of Elec Circuits

Overview

Course Subject Code
ENGR

Course Number
236

Course Title
Fund of Elec Circuits

Department
Electrical & Renewable Energy

Course Description
Resistive circuits, operational amplifiers, capacitors, inductors, transient analysis, sine waves, AC circuit analysis, resonance, transformers. Not for Electronics Engineering Technology and Computer Engineering Technology students.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR266 - Engineering Computation

Overview

Course Subject Code
ENGR

Course Number
266

Course Title
Engineering Computation

Department
Manufacturing & Mechanical Eng

Course Description
Programming and problem solving using current computer software. General programming techniques using conditional statements, looping, subroutines, and data input/output will be stressed. Consideration of features specific to the software being used will also be presented.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR267 - Engineering Programming

Overview

Course Subject Code
ENGR

Course Number
267

Course Title
Engineering Programming

Department
Electrical & Renewable Energy

Course Description
Data structures, operators, control structures, functions, object-oriented programming, algorithms, GUIs, engineering data analysis and processing, plotting and data visualization, computational problem solving, Python and MATLAB programming languages.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR305 - Nanoscience & Nanotech

Overview

Course Subject Code
ENGR

Course Number
305

Course Title
Nanoscience & Nanotech

Department
Electrical & Renewable Energy

Course Description
Survey of chemical and physical phenomena as applied to nanoscale materials, including metal and semiconductor nanoparticles and carbon nanostructures. Discussion of major synthesis and characterization techniques. Biological and engineering applications of nanoscale materials.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR307 - Seminar

Overview

Course Subject Code
ENGR

Course Number
307

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR318 - Engineering Mech: Fluids

Overview

Course Subject Code
ENGR

Course Number
318

Course Title
Engineering Mech: Fluids

Department
Civil Engineering

Course Description
Fundamental properties of fluids, fluid statics and pressure variation, flow characterization, momentum and forces due to fluid motion, energy of fluids in motion, and flow in conduits. Emphasis on civil and mechanical engineering applications of fluid mechanics principles.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR326 - Electric Power Systems

Overview

Course Subject Code
ENGR

Course Number
326

Course Title
Electric Power Systems

Department
Manufacturing & Mechanical Eng

Course Description
Study related to theory and application of industrial electric power systems. Topics include transformers, motors, generators, motor controls, and protective devices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR355 - Thermodynamics

Overview

Course Subject Code
ENGR

Course Number
355

Course Title
Thermodynamics

Department
Manufacturing & Mechanical Eng

Course Description
An introductory course in thermodynamics, the science of heat energy conversion. Develops understanding of energy, heat, work, efficiency, and ideal thermodynamic cycles. Teaches first and second laws of thermodynamics and perfect gas law.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR407 - Seminar

Overview

Course Subject Code
ENGR

Course Number
407

Course Title
Seminar

Department
Civil Engineering

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
12

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR415 - Occupational Safety

Overview

Course Subject Code
ENGR

Course Number
415

Course Title
Occupational Safety

Department
Manufacturing & Mechanical Eng

Course Description
Topics include current occupational safety and health issues. Practical application of regulations in the industrial setting. Compliance to Industrial Hygiene and General Safety Standards. Common safety violations and implementation of safety programs. Junior standing in any MMET program required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR420 - Engr Mdlng & Sim of Dyn Sys

Overview

Course Subject Code
ENGR

Course Number
420

Course Title
Engr Mdlng & Sim of Dyn Sys

Department
Electrical & Renewable Energy

Course Description
Conservation laws of physics are used to develop lumped-parameter models of dynamic systems, Modeling, mathematical analysis, and computer simulation of systems containing mechanical, electrical, electromechanical, fluid, and thermal components. Dynamic behavior and performance criteria characterization of continuous-time models.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR421 - Automation for Robotics

Overview

Course Subject Code
ENGR

Course Number
421

Course Title
Automation for Robotics

Department
Electrical & Renewable Energy

Course Description
A capstone course in the automation, robotics, and control system engineering sequence. A unified treatment using dynamics, modeling, simulation, and linear control for the automation of robots. Trajectory planning, stability, controllability, and how these topics form key concepts of automation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR423 - MC in Mechanisms & Robotics

Overview

Course Subject Code
ENGR

Course Number
423

Course Title
MC in Mechanisms & Robotics

Department
Electrical & Renewable Energy

Course Description
Motion control components, beginning with the study of the function, classification, position, velocity, and acceleration of fundamental mechanisms and robot kinematic chains. Dynamic response of open- and closed-loop mechanisms to periodic and non-periodic loading. Sensors and actuators in motion control.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR424 - Advanced Control Engineering

Overview

Course Subject Code
ENGR

Course Number
424

Course Title
Advanced Control Engineering

Department
Electrical & Renewable Energy

Course Description
Advanced modeling of continuous and discrete processes suitable for use in control system design. State functions, state equations, transfer matrices. State-space model building, state-feedback control and observation, pole placement, linear transformations of state vectors. Introduction to discrete-time control systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR445 - Engineering Project Management

Overview

Course Subject Code
ENGR

Course Number
445

Course Title
Engineering Project Management

Department
Manufacturing & Mechanical Eng

Course Description
Applications of the Critical Path Method to organization and control of engineering projects. Applications software will be used to create and evaluate project networks to develop management reports. Junior standing in Engineering or Engineering Technology required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR461 - Engr Mdlng & Sim of Dyn Sys

Overview

Course Subject Code
ENGR

Course Number
461

Course Title
Engr Mdlng & Sim of Dyn Sys

Department
Electrical & Renewable Energy

Course Description
Conservation laws of physics are used to develop lumped-parameter models of continuous-time dynamic systems. Modeling and analysis of engineering systems containing mechanical, electrical, electromechanical, fluid, and thermal components. Computational methods are used to simulate a range of practical engineering problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR462 - Cntrl Engr II: Modern Methods

Overview

Course Subject Code
ENGR

Course Number
462

Course Title
Cntrl Engr II: Modern Methods

Department
Electrical & Renewable Energy

Course Description
Modeling, simulation, and control of continuous and discrete processes using state-space methods. State functions, state equations, transfer matrices. State-space model building, state-feedback control and observation, pole placement, state vector transformations. Discrete-time control systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR463 - MC in Mechanisms & Robotics

Overview

Course Subject Code
ENGR

Course Number
463

Course Title
MC in Mechanisms & Robotics

Department
Electrical & Renewable Energy

Course Description
Motion control components, beginning with the study of the function, classification, position, velocity, and acceleration of fundamental mechanisms and robot kinematic chains. Dynamic response of open- and closed-loop mechanisms to periodic and non-periodic loading. Motion and torque control.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR464 - Autonomous Systems

Overview

Course Subject Code
ENGR

Course Number
464

Course Title
Autonomous Systems

Department
Electrical & Renewable Energy

Course Description
A capstone course in the Robotics, Control, and Autonomous Systems Engineering sequence. A unified treatment using dynamics, modeling, simulation, and control in the analysis and synthesis of autonomous control systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR465 - Capstone Project

Overview

Course Subject Code
ENGR

Course Number
465

Course Title
Capstone Project

Department
Electrical & Renewable Energy

Course Description
Students apply material learned in other courses, develop expertise on a specific topic, work closely with a faculty member to implement the project, and improve professional communication skills by writing a project report. Course may be repeated for credit. Junior standing and instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR485 - Fund of Engineering Exam Prep

Overview

Course Subject Code
ENGR

Course Number
485

Course Title
Fund of Engineering Exam Prep

Department
Civil Engineering

Course Description
A preparation course covering the requirements of, and providing a review for, the NCEES FE exam. Senior standing in MMET program required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR491 - MMET Senior Projects I

Overview

Course Subject Code
ENGR

Course Number
491

Course Title
MMET Senior Projects I

Department
Manufacturing & Mechanical Eng

Course Description
The first of a three-term sequence that offers a capstone experience for students in an MMET program. This experience involves the application of knowledge and skills acquired for prior coursework to an engineered system, system optimization, project management, and material related to a group of engineering project. This course will be focused on the proposal and planning stages of the project assigned. Requires senior standing in an MMET program and instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR492 - MMET Senior Projects II

Overview

Course Subject Code
ENGR

Course Number
492

Course Title
MMET Senior Projects II

Department
Manufacturing & Mechanical Eng

Course Description
The second course of a three-term sequence that offers a capstone experience for students in anMMET program. This experience involves the application of knowledge and skills acquired from prior coursework to an engineered system, system optimization, project management, and material related to a group engineering project. This course will be focused on the design and analysis stages of the project assigned.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
7

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lab Hours

Lab Hours Min
6

Pre-Requisites

No Requirements

ENGR493 - MMET Senior Projects III

Overview

Course Subject Code
ENGR

Course Number
493

Course Title
MMET Senior Projects III

Department
Manufacturing & Mechanical Eng

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
7

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lab Hours

Lab Hours Min
6

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR507 - Seminar

Overview

Course Subject Code
ENGR

Course Number
507

Course Title
Seminar

Department
Civil Engineering

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENGR511 - Res. Methods & Innovation: IP

Overview

Course Subject Code
ENGR

Course Number
511

Course Title
Res. Methods & Innovation: IP

Department
Electrical & Renewable Energy

Course Description
ntellectual property (IP) development, evaluation, and strategy. IP fundamentals, patent fundamentals, conducting patentability searches, state-of-the art searchers, evaluating the patentability potential of an invention, drafting invention disclosures and patent applications, assessing the value of a patent or patent portfolio, and IP licensing fundamentals.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

ENGR512 - Res Meth & Innov: Res Meth

Overview

Course Subject Code
ENGR

Course Number
512

Course Title
Res Meth & Innov: Res Meth

Department
Electrical & Renewable Energy

Course Description
Fundamental concepts of scientific research. An introduction to the concepts underlying peer-reviewed research, evaluating the relevance and impact of sources, conducting literature reviews, evaluating published findings, using research productivity tools, using statistical methods, designing research studies, and writing scholarly articles.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR513 - Res Meth & Innov: Strat & Inno

Overview

Course Subject Code
ENGR

Course Number
513

Course Title
Res Meth & Innov: Strat & Inno

Department
Electrical & Renewable Energy

Course Description
Strategy and innovation concepts with a focus on technology commercialization. Business strategy frameworks, strategic execution, project management, technology forecasting, financial analysis, technical marketing, operations management, business models, business law, and entrepreneurship.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

ENGR520 - Engr Modeling & Sim of Dyn Sys

Overview

Course Subject Code
ENGR

Course Number
520

Course Title
Engr Modeling & Sim of Dyn Sys

Department
Electrical & Renewable Energy

Course Description
Conservation laws of physics are used to develop lumped-parameter models of dynamic systems. Modeling, mathematical analysis, and computer simulation of systems containing mechanical, electrical, electrochemical, fluid, and thermal components. Dynamic behavior and performance criteria. Graduate standing in engineering required.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR521 - Automation Systems

Overview

Course Subject Code
ENGR

Course Number
521

Course Title
Automation Systems

Department
Electrical & Renewable Energy

Course Description
A capstone course in the automation, robotics, and control system engineering sequence. A unified treatment using dynamics, modeling, simulation, and linear control for the automation of robots. Trajectory planning, stability, controllability, and how these topics form key concepts of automation.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR523 - MC in Mechanisms and Robotics

Overview

Course Subject Code
ENGR

Course Number
523

Course Title
MC in Mechanisms and Robotics

Department
Electrical & Renewable Energy

Course Description
Motion control components, beginning with the study of the function, classification, position, velocity, and acceleration of fundamental mechanisms and robot kinematic chains. Dynamic response of open- and closed-loop mechanisms to periodic and non-periodic loading. Sensors and actuators in motion control.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR524 - Advanced Control Engineering

Overview

Course Subject Code
ENGR

Course Number
524

Course Title
Advanced Control Engineering

Department
Electrical & Renewable Energy

Course Description
Advanced modeling of continuous and discrete processes suitable for use in control system design. State functions, state equations, transfer matrices. State-space model building, state-feedback control and observation, pole placement, linear transformations of state vectors. Introduction to discrete-time control systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR535 - Embedded Systems I

Overview

Course Subject Code
ENGR

Course Number
535

Course Title
Embedded Systems I

Department
Electrical & Renewable Energy

Course Description
Advanced course in embedded systems design and development. Topics include an introduction operating systems, cross-compilation, device tree overlays, ARM processor architecture, embedded networking, inter process communications, external hardware interfaces, and development of graphic user interfaces.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR555 - Embedded Systems II

Overview

Course Subject Code
ENGR

Course Number
555

Course Title
Embedded Systems II

Department
Electrical & Renewable Energy

Course Description
Advanced course in embedded systems design and development. Topics include bootloaders, interrupts, embedded operating systems, memory management systems, file systems, device drivers, makefiles, software revision control, software profiling, software debugging, and development of embedded software applications.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR561 - Modeling & Sim of Dyn Systems

Overview

Course Subject Code
ENGR

Course Number
561

Course Title
Modeling & Sim of Dyn Systems

Department
Electrical & Renewable Energy

Course Description
Conservation laws of physics are used to develop lumped-parameter models of continuous-time dynamic systems. Modeling and analysis of engineering systems containing mechanical, electrical, electromechanical, fluid, and thermal components. Computational methods are used to simulate a range of practical engineering problems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR562 - Ctrl. Engr. II: Modern Methods

Overview

Course Subject Code
ENGR

Course Number
562

Course Title
Ctrl. Engr. II: Modern Methods

Department
Electrical & Renewable Energy

Course Description
Modeling, simulation, and control of continuous and discrete processes using state-space methods. State functions, state equations, transfer matrices. State-space rnodel building, state-feedback control and observation, pole placement, state vector transformations. Discrete-time control systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR563 - Motion Ctrl in Mech & Robotics

Overview

Course Subject Code
ENGR

Course Number
563

Course Title
Motion Ctrl in Mech & Robotics

Department
Electrical & Renewable Energy

Course Description
Motion control components, beginning with the study of the function, classification, position, velocity, and acceleration of fundamental mechanisms and robot kinematic chains. Dynamic response of open- and closed-loop mechanisms to periodic and non-periodic loading. Motion and torque control.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENGR595 - Selected Grad Topics in Engr

Overview

Course Subject Code
ENGR

Course Number
595

Course Title
Selected Grad Topics in Engr

Department
Civil Engineering

Course Description
Selected engineering topics at the graduate level. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

ENGR596 - Grad Research & Development

Overview

Course Subject Code
ENGR

Course Number
596

Course Title
Grad Research & Development

Department
Electrical & Renewable Energy

Course Description
Selected engineering topics at the graduate level. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENGR597 - Graduate Project

Overview

Course Subject Code
ENGR

Course Number
597

Course Title
Graduate Project

Department
Electrical & Renewable Energy

Course Description
Graduate project in engineering topics. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

ENGR598 - Graduate Thesis

Overview

Course Subject Code
ENGR

Course Number
598

Course Title
Graduate Thesis

Department
Electrical & Renewable Energy

Course Description
Graduate thesis in engineering topics. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Pre-Requisites

No Requirements

ENV107 - Seminar

Overview

Course Subject Code
ENV

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.) Prerequisite: ENV major or instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV108 - Mentorship & Team Building

Overview

Course Subject Code
ENV

Course Number
108

Course Title
Mentorship & Team Building

Department
Natural Sciences

Course Description
We develop a strong sense ofcommunity, trust, inclusion, and belonging within the Environmental Science programamong all students and faculty. We introduce student mentorship opportunities andengage in team building exercises and environmental exploration during a weekendcamping trip. Course is required every Fall. Can be taken multiple times for credit. Noprerequisites.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV111 - Intro to Env Sciences

Overview

Course Subject Code
ENV

Course Number
111

Course Title
Intro to Env Sciences

Department
Natural Sciences

Course Description
A topical overview of environmental sciences stressing the integration of the social, natural and physical sciences. Emphasis on active learning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health, Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

ENV207 - Seminar

Overview

Course Subject Code
ENV

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.) Prerequisite: ENV major or instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV214 - Watershed Sci & Tech

Overview

Course Subject Code
ENV

Course Number
214

Course Title
Watershed Sci & Tech

Department
Natural Sciences

Course Description
Science and technology of watershed processes, monitoring, and assessment. Applications and case studies focused on sustainable management and restoration of water resources and their associated aquatic, riparian, and upland ecosystems. Local and regional sites of interest are highlighted.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV217 - Intro to Natural Resource Mgmt

Overview

Course Subject Code
ENV

Course Number
217

Course Title
Intro to Natural Resource Mgmt

Department
Natural Sciences

Course Description
An introduction tomanagement of natural resources including water, air, forests, wildlife & fisheries,minerals and energy. Explore structured decision making, risk assessment,uncertainty, stakeholder engagement, adaptive management, conservation andscenario planning, and climate and environmental mitigation, adaptation, andresiliency.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENV224 - Scientific Reason & Method

Overview

Course Subject Code
ENV

Course Number
224

Course Title
Scientific Reason & Method

Department
Natural Sciences

Course Description
Fundamental principles and practices of scientific reasoning and methodology, including contrasts with other ways of making knowledge, the power of questions, theories versus hypotheses, understanding experiments, supporting claims, drawing inferences, reproducibility, and coping with uncertainty in typical uncontrolled natural experiments.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV226 - Environmental Data Analysis

Overview

Course Subject Code
ENV

Course Number
226

Course Title
Environmental Data Analysis

Department
Natural Sciences

Course Description
Introduction to compilation, manipulation, and analysis of datasets common to environmental analysis. Includes measures of central tendency and spread; characterizing data distribution; linear regression; exceedance probability and cumulative frequency functions; understanding time series; and basic principles of graphical data displays.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV265 - Field Methods Environ Science

Overview

Course Subject Code
ENV

Course Number
265

Course Title
Field Methods Environ Science

Department
Natural Sciences

Course Description
Basic principles of experimental design, site and instrument selection for field research. Basic instrumentation and data acquisition techniques are used to contribute to authentic research programs at different locations alongside environmental science professionals.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV275 - Careers in Env. Sciences

Overview

Course Subject Code
ENV

Course Number
275

Course Title
Careers in Env. Sciences

Department
Natural Sciences

Course Description
Survey of specialties and careers in environmental sciences, including educational requirements. Jobs in government, non-government (non-profit), and private sectors are presented and discussed. Faculty support for student job searches.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV307 - Seminar

Overview

Course Subject Code
ENV

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.) Prerequisite: ENV major or instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV314 - Environmental Policy & Law

Overview

Course Subject Code
ENV

Course Number
314

Course Title
Environmental Policy & Law

Department
Natural Sciences

Course Description
Overview of legislative, regulatory, and policy-based activities involving the development, management, and restoration of natural ecosystem services. Emphasis on the National Environmental Policy, Clean Water, and Endangered Species Acts, with illustrative case studies from local and regional environments.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV321 - Water Resources

Overview

Course Subject Code
ENV

Course Number
321

Course Title
Water Resources

Department
Natural Sciences

Course Description
This course will provide an overview of the science & policy related to managing fresh water resources in the Western United States. Fundamentals of hydrologic processes, riparian assessment, stream surveying techniques, water sampling methods, watershed delineation, adjudication processes, the environmental impacts of water use, and riverine restoration practices will be included.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV336 - Environmental Hydrology

Overview

Course Subject Code
ENV

Course Number
336

Course Title
Environmental Hydrology

Department
Natural Sciences

Course Description
Study of the hydrologic cycle; quantitative measurement of precipitation, infiltration, runoff, streamflow and storage in watersheds. Curve fitting, hydrographic analysis, statistical analysis of extreme flows, flood routing, and runoff modeling for small and urban watersheds.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV355 - Careers and Prof. in Env. Sci.

Overview

Course Subject Code
ENV

Course Number
355

Course Title
Careers and Prof. in Env. Sci.

Department
Natural Sciences

Course Description
Practical seminar focusing on career opportunities in environmental sciences, professional standards, culture, ethics, and skills to enhance communication and collegiality. Assists students with workforce transition, including job search, preparation of resume packages and portfolios, interviewing tips, and job-offer negotiation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV365 - Adv Field Methods in Env Sci

Overview

Course Subject Code
ENV

Course Number
365

Course Title
Adv Field Methods in Env Sci

Department
Natural Sciences

Course Description
Basic principles of experimental design, site and instrument selection for field research. Basic instrumentation and data acquisition techniques are used to contribute to authentic research programs at different locations alongside environmental science professionals. Course may be repeated for credit.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV375 - Forest Ecology & Management

Overview

Course Subject Code
ENV

Course Number
375

Course Title
Forest Ecology & Management

Department
Natural Sciences

Course Description
Examine abiotic and biotic factors affecting the structure, function, composition, and distribution of forest communities including wildland fire; sustainable forest management practices and policies; and core concepts required for careers in forestry, wildland fire, natural resources, range, and wildlife. Prerequisite: BIO211 or BIO212 or Instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

ENV407 - Seminar

Overview

Course Subject Code
ENV

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV420 - Extern Environmental Science

Overview

Course Subject Code
ENV

Course Number
420

Course Title
Extern Environmental Science

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
9

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
9

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
9

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

ENV422 - Green Chemistry

Overview

Course Subject Code
ENV

Course Number
422

Course Title
Green Chemistry

Department
Natural Sciences

Course Description
Advanced topics in green chemistry, including industrial applications, atom economy, safer solvent substitutions, alternatives assessment, green metrics (PMI, E-factor) basic life cycle analysis, and an introduction to chemical toxicology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV425 - Fire Ecology

Overview

Course Subject Code
ENV

Course Number
425

Course Title
Fire Ecology

Department
Natural Sciences

Course Description
Wildland fire is on critical issue across communities of the western U.S. right now. It is a complex issue that integrates a wide range of challenges from unwanted destruction of valuable natural resources to the critical positive ecological role of fire in forests, rangeland and other ecosystems and habitats. Managing wildland fire has become even more complicated over the past several decades with expanding wildland-urban and rural interface and the use of prescribed fire as a management tool.The primary goal of this course is to provide and practice fundamental knowledge, comprehension and understanding, practice and application of wildland fire principles, concepts, and issues in ecological as well as sociopolitical contexts, as these are inextricably linked in our contemporary world! We will integrate this information into the context of natural resource management, protection, and stewardship.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV433 - Environmental Education

Overview

Course Subject Code
ENV

Course Number
433

Course Title
Environmental Education

Department
Natural Sciences

Course Description
This course explores the field of environmental education through the lens of the North American Association of Environmental Education Guidelines for Excellence. Students will produce standards aligned outdoor lessons utilizing backwards design and implementing pedagogy for a diverse range of learners. These lessons will include formative and summative assessment techniques for evaluation of the experience.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV434 - Advanced Data Analysis

Overview

Course Subject Code
ENV

Course Number
434

Course Title
Advanced Data Analysis

Department
Natural Sciences

Course Description
Overview of advanced concepts and methods of analysis specific to ecological data sets using program R. Bayesian and parametric methods, analysis of variance, linear regression, generalized linear modeling, generalized additive modeling, mixed-effect models, multi-model inference, ordination, and time-series analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV435 - Atmospheric Physics

Overview

Course Subject Code
ENV

Course Number
435

Course Title
Atmospheric Physics

Department
Natural Sciences

Course Description
Data analysis is an extremely crucial component of any scientific discipline, but proper data analysis in the environmental sciences is particularly vital. Scientific observations of the natural world are inherently fraught with complexity, variability, and a high degree of uncertainty. Consequently, effective statistical analyses must be applied with a thorough understanding of the pros and cons of each approach. This course aims to provide you with a broad overview of both traditional and modern statistical approaches commonly used to address the special needs of ecological data sets.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Contact Hours Operator
TO

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

ENV460 - Risk Mgmt & Wildrnss First Aid

Overview

Course Subject Code
ENV

Course Number
460

Course Title
Risk Mgmt & Wildrnss First Aid

Department
Natural Sciences

Course Description
This course will focus on the administrative elements necessary to design and implement safe and effective environmental education programs. Students will receive their Wilderness First Aid (WFA) certification as part of this course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV465 - Ecological Resto. & Monitoring

Overview

Course Subject Code
ENV

Course Number
465

Course Title
Ecological Resto. & Monitoring

Department
Natural Sciences

Course Description
Principles and practices of ecological restoration, including ecosystem assessment; evaluation; and restoration, planning, design, implementation, and monitoring. Labs including fields visits and evaluation of local restoration projects.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV466 - Environmental Education

Overview

Course Subject Code
ENV

Course Number
466

Course Title
Environmental Education

Department
Natural Sciences

Course Description
This course explores the field of environmental education through the lens of the North American Association of Environmental Education Guidelines for Excellence. Students will produce standards aligned outdoor lessons utilizing backwards design and implementing pedagogy for a diverse range of learners. These lessons will include formative and summative assessment techniques for evaluation of the experience.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV469 - Treatment Wetlands

Overview

Course Subject Code
ENV

Course Number
469

Course Title
Treatment Wetlands

Department
Natural Sciences

Course Description
Treatment wetland features: biological, chemical, and physical properties. Planning, design, and performance assessment principles for municipal, agricultural, and storm water treatment wetlands. Considers vegetation and microbiology, aerobic and anaerobic biogeochemistry, hydraulics, and treatment efficiencies. Local case studies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ENV475 - Profnl. & Job Readiness

Overview

Course Subject Code
ENV

Course Number
475

Course Title
Profnl. & Job Readiness

Department
Natural Sciences

Course Description
Practical seminar focusing on professional standards, culture, ethics, and skills to enhance communication, collegiality, and positive projection of values and self-image. Assists students with workforce transition, including job search, preparation of resume packages and portfolios, interviewing tips, and job-offer negotiation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV477 - Entomology

Overview

Course Subject Code
ENV

Course Number
477

Course Title
Entomology

Department
Natural Sciences

Course Description
A study is made of insect morphology, taxonomy, development, and life histories. Collection and identification by use of keys are stressed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV479 - Ichthyology

Overview

Course Subject Code
ENV

Course Number
479

Course Title
Ichthyology

Department
Natural Sciences

Course Description
You will be introduced to the diversity of fishes and be exposed to the taxonomy, form and function, distribution, natural history, ecology, economic importance, and management of fishes with an emphasis on Oregon and regional species.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV484 - Sustainable Human Ecology

Overview

Course Subject Code
ENV

Course Number
484

Course Title
Sustainable Human Ecology

Department
Natural Sciences

Course Description
A multidisciplinary exploration of historic, contemporary, and future interactions of human communities, economies, technologies, and ecosystems from local to global scales and the biggest problems facing long-term planetary health including climate change, energy, food and water security, health and well-being. Prerequisite: ENV111 or BIO212 or Instructor Consent

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

ENV485 - Habitat Management

Overview

Course Subject Code
ENV

Course Number
485

Course Title
Habitat Management

Department
Natural Sciences

Course Description
Provides an individual and team-based synthesis of the influence of human activities on habitat. Illustrates linkage between climate-based habitats and their management and restoration by cooperation of land and aquatic management entities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV489 - Aquatic Inorganic Chemistry

Overview

Course Subject Code
ENV

Course Number
489

Course Title
Aquatic Inorganic Chemistry

Department
Natural Sciences

Course Description
This course will teach you fundamental chemistry concepts for understanding the behavior of inorganic species, such as carbonate, nutrients, and trace metals, in both natural and engineered aquatic systems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV495 - Research in Env. Sciences

Overview

Course Subject Code
ENV

Course Number
495

Course Title
Research in Env. Sciences

Department
Natural Sciences

Course Description
Supports student-initiated research projects in environmental sciences. Topic and scope must be reviewed and accepted by a faculty advisor. Registration by instructor consent. Counts as technical elective credit. May be repeated for up to nine total credits. (Hours to be arranged each term).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
6

Pre-Requisites

No Requirements

ENV507 - Seminar

Overview

Course Subject Code
ENV

Course Number
507

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

ENV512 - Human Dimension

Overview

Course Subject Code
ENV

Course Number
512

Course Title
Human Dimension

Department
Natural Sciences

Course Description
The science of incorporating current human-natural resource relationships with traditional biological sciences information in the natural resource decision-making process.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ENV522 - Green Chemistry

Overview

Course Subject Code
ENV

Course Number
522

Course Title
Green Chemistry

Department
Natural Sciences

Course Description
Advanced topics in green chemistry, including industrial applications, atom economy, safer solvent substitutions, alternatives assessment, green metrics (PMI, E-factor), basic life cycle analysis, and an introduction to chemical toxicology.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV525 - Fire Ecology

Overview

Course Subject Code
ENV

Course Number
525

Course Title
Fire Ecology

Department
Natural Sciences

Course Description
The primary goal of this course is to provide and practice fundamental knowledge, comprehension and understanding, practice and application of wildland fire principles,concepts, and issues in ecological as well as sociopolitical contexts, as these are inextricably linked in our contemporary world. We will integrate this information into the context of natural resource management, protection, and stewardship.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV534 - Advanced Data Analysis

Overview

Course Subject Code
ENV

Course Number
534

Course Title
Advanced Data Analysis

Department
Natural Sciences

Course Description
Data analysis is an extremely crucial component of any scientific discipline, but proper data analysis in the environmental sciences is particularly vital. This course aims to provide you with a broad overview of both traditional and modern statistical approaches commonly used to address the special needs of ecological data sets.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV542 - Invertebrate Ecology

Overview

Course Subject Code
ENV

Course Number
542

Course Title
Invertebrate Ecology

Department
Natural Sciences

Course Description
Invertebrate ecology focuses on student-driven inquiry and discovery of the critical importance of invertebrates, their unknown diversity, and their unique adaptations to thrive in different environments.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

ENV544 - Pollinator Ecology Plants/Bees

Overview

Course Subject Code
ENV

Course Number
544

Course Title
Pollinator Ecology Plants/Bees

Department
Natural Sciences

Course Description
This course will examine interactions between bees and the plants that they pollinate, current threats to pollinator populations, and the conservation of pollinators in the Klamath Basin and beyond.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
6

Billing Hours
Billing Hours
Min
4

Lecture Hours
Lecture Hours
Min
3

Lab Hours
Lab Hours Min
3

Number Of Repeats
3

ENV560 - Risk Mgmt/Wilderness First Aid

Overview

Course Subject Code
ENV

Course Number
560

Course Title
Risk Mgmt/Wilderness First Aid

Department
Natural Sciences

Course Description
This course will focus on the administrative elements necessary to design and implement safe and effective environmental education programs. Students will receive their Wilderness First Aid (WFA) certification as part of this course.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours
Credit Hours
Min
3

Contact Hours
Contact Hours
Min
3

Billing Hours
Billing Hours
Min
3

Lecture Hours
Lecture Hours
Min
3

Lab Hours
Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV565 - Ecological Resto. & Monitoring

Overview

Course Subject Code
ENV

Course Number
565

Course Title
Ecological Resto. & Monitoring

Department
Natural Sciences

Course Description
Principles and practices of ecological restoration, including ecosystem assessment; evaluation; and restoration, planning, design, implementation, and monitoring. Labs including fields visits and evaluation of local restoration projects.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV566 - Environmental Education

Overview

Course Subject Code
ENV

Course Number
566

Course Title
Environmental Education

Department
Natural Sciences

Course Description
This course explores the field of environmental education through the lens of the North American Association of Environmental Education Guidelines for Excellence. Students will produce standards aligned outdoor lessons utilizing backwards design and implementing pedagogy for a diverse range of learners. These lessons will include formative and summative assessment techniques for evaluation of the experience.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV569 - Treatment Wetlands

Overview

Course Subject Code
ENV

Course Number
569

Course Title
Treatment Wetlands

Department
Natural Sciences

Course Description
Treatment wetland features: biological, chemical, and physical properties. Planning, design, and performance assessment principles for municipal, agricultural, and stormwater treatment wetlands. Considers vegetation and microbiology, aerobic and anaerobic biogeochemistry, hydraulics, and treatment efficiencies. Local case studies.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

ENV575 - Forest Ecology & Management

Overview

Course Subject Code
ENV

Course Number
575

Course Title
Forest Ecology & Management

Department
Natural Sciences

Course Description
This course examines the fundamentals of terrestrial ecology, with an emphasis on forest ecosystems and their management. In addition to examining the abiotic and biotic factors affecting the structure, function, composition, and distribution of western forest communities, we will explore the diverse societal perspectives that drive the management of both public and private forests.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
6

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

ENV577 - Entomology

Overview

Course Subject Code
ENV

Course Number
577

Course Title
Entomology

Department
Natural Sciences

Course Description
A study is made of insect morphology, taxonomy, development, and life histories. Collection and identification by use of keys are stressed.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV579 - Ichthyology

Overview

Course Subject Code
ENV

Course Number
579

Course Title
Ichthyology

Department
Natural Sciences

Course Description
You will be introduced to the diversity of fishes and be exposed to the taxonomy, form and function, distribution, natural history, ecology, economic importance, and management of fishes with an emphasis on Colorado and regional species. In laboratory, you will be introduced to approximately 100 representative species and will be expected to learn techniques to identify fish from lab and field collections.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

ENV584 - Sustainable Human Ecology

Overview

Course Subject Code
ENV

Course Number
584

Course Title
Sustainable Human Ecology

Department
Natural Sciences

Course Description
This course combines two distinct and overlapping disciplines - Human Ecology & Sustainability. While the former is relatively easily defined, the later is not. At the heart of this course is an exploration and realistic discussion of who we are as a species, what it means to be human over the past 300,000 years, how we got to be where we are today, evolutionarily, ecologically, culturally, technologically, and how we can move forward in a way that supports and promotes the health of all living communities and the planet which we share.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

ENV585 - Habitat Management

Overview

Course Subject Code
ENV

Course Number
585

Course Title
Habitat Management

Department
Natural Sciences

Course Description
This course explores the principles and practices of wildlife habitat management with an emphasis on Oregon's most extensive terrestrial ecosystems. It provides an in-depth understanding of habitat requirements for native species, conservation strategies, and the impact of human activities on wildlife.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

ENV589 - Aquatic Inorganic Chemistry

Overview

Course Subject Code
ENV

Course Number
589

Course Title
Aquatic Inorganic Chemistry

Department
Natural Sciences

Course Description
This course will teach you fundamental chemistry concepts for understanding the behavior of inorganic species, such as carbonate, nutrients, and trace metals, in both natural and engineered aquatic systems. We will focus on equilibrium concepts, including acid-base reactions, complexation, oxidation/reduction, open systems, precipitation/dissolution, and sorption. You will learn to determine the equilibrium composition of a system given its initial conditions, and you will be able to predict how perturbations will affect the system's chemistry.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

FOR200U - Foreign Language Upper Div

Overview

Course Subject Code
FOR2

Course Number
00U

Course Title
Foreign Language Upper Div

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Foreign Language Requirement, Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

FOR1000 - Foreign Language 1st Year

Overview

Course Subject Code
FOR1

Course Number
000

Course Title
Foreign Language 1st Year

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Foreign Language Requirement

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

FOR2000 - Foreign Language 2nd Year

Overview

Course Subject Code
FOR2

Course Number
000

Course Title
Foreign Language 2nd Year

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Foreign Language Requirement, Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

GEOG105 - Physical Geography

Overview

Course Subject Code
GEOG

Course Number
105

Course Title
Physical Geography

Department
Natural Sciences

Course Description
Comprehensive introduction to physical geography, including maps and representation of the earth's surface, the climate system and weather phenomena, plate tectonics, landform evolution and interpretation, and human-landscape interactions. Satisfies lab science.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOG107 - Cultural Geography II

Overview

Course Subject Code
GEOG

Course Number
107

Course Title
Cultural Geography II

Department
Humanities & Social Sciences

Course Description
Cultural geography of the world's underdeveloped realms-the countries of Middle and South Americas and Africa. The course emphasizes the regional approach.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOG207 - Seminar

Overview

Course Subject Code
GEOG

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOG305 - Geomorphology

Overview

Course Subject Code
GEOG

Course Number
305

Course Title
Geomorphology

Department
Humanities & Social Sciences

Course Description
Principles and practices of landform analysis, focusing on processes, patterns, and their interactions. Emphasis on tectonic interactions; mountains; rivers; fans and deltas; glacial and periglacial landscapes; and coastlines.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOG307 - Seminar

Overview

Course Subject Code
GEOG

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOG315 - Climatology & Atmospheric Sci

Overview

Course Subject Code
GEOG

Course Number
315

Course Title
Climatology & Atmospheric Sci

Department
Humanities & Social Sciences

Course Description
Overview and analysis of earth's climate system, focusing on radiative processes; heat distribution and budgeting; atmospheric chemistry, circulation, and precipitation; ocean-land-atmospheric interactions; and long- and short-term climate change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOG335 - Soils

Overview

Course Subject Code
GEOG

Course Number
335

Course Title
Soils

Department
Natural Sciences

Course Description
Processes and patterns of soil genesis and evolution, including weathering; profile development and identification; soil classification and mapping; abiotic-biotic components and interactions; and tilth, soil quality, and conservation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOG407 - Seminar

Overview

Course Subject Code
GEOG

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOL107 - Seminar

Overview

Course Subject Code
GEOL

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOL201 - Physical Geology

Overview

Course Subject Code
GEOL

Course Number
201

Course Title
Physical Geology

Department
Natural Sciences

Course Description
A brief systematic description of the major rock-forming minerals and the three major rock groups. The events of erosion, transportation, and deposition of chemically altered and physically fragmented rocks and the resulting sculpturing of the earth's surface are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GEOL207 - Seminar

Overview

Course Subject Code
GEOL

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOL307 - Seminar

Overview

Course Subject Code
GEOL

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GEOL407 - Seminar

Overview

Course Subject Code
GEOL

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GIS103 - The Digital Earth

Overview

Course Subject Code
GIS

Course Number
103

Course Title
The Digital Earth

Department
Applied Computing & Geomatics

Course Description
Introduction to the digital representation of the features and attributes of our natural world. Concepts, vocabulary, and use of GIS and GPS, and how these systems help solve geospatial problems. Integration of GPS data into GIS. Acquisition of GIS data via "smart phones".

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

GIS107 - Seminar

Overview

Course Subject Code
GIS

Course Number
107

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GIS134 - Geographic Info Systems

Overview

Course Subject Code
GIS

Course Number
134

Course Title
Geographic Info Systems

Department
Applied Computing & Geomatics

Course Description
Coordinate systems. Creating, editing, and querying feature and attribute data. Symbolizing, classifying, and labeling features. Tabular relationships. Introduction to elements of map design, Shapefile- KML and CAD-GIS data conversion. Use of raster data, analyzing raster surfaces. Use of UAS (drone) data. Use of web-based GIS applications and services. Extensive use of ArcGIS™ software. Examples from a variety of disciplines.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS205 - Mobile and Web GIS

Overview

Course Subject Code
GIS

Course Number
205

Course Title
Mobile and Web GIS

Department
Applied Computing & Geomatics

Course Description
Theory and operation of GPS. Use of GPS and smart phones for field data collection. Creation and use of apps for data collection via smart phones. Web mapping. Real-time GIS. Creation of 3D scenes. Extensive use and creation of web-based GIS applications and services.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS207 - Seminar

Overview

Course Subject Code
GIS

Course Number
207

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GIS306 - Geospatial Raster Analysis

Overview

Course Subject Code
GIS

Course Number
306

Course Title
Geospatial Raster Analysis

Department
Applied Computing & Geomatics

Course Description
Manipulation and storage of raster data. Measurement scales. Map algebra. Georeferencing raster datasets. Least-cost path and corridor modeling techniques. Distance, surface and density mapping techniques. Viewshed and hydrologic analyses. Processing of UAS (drone) data.Prerequisite: GIS 134

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS307 - Seminar

Overview

Course Subject Code
GIS

Course Number
307

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GIS316 - Geospatial Vector Analysis

Overview

Course Subject Code
GIS

Course Number
316

Course Title
Geospatial Vector Analysis

Department
Applied Computing & Geomatics

Course Description
This course provides the knowledge and skills to investigate the spatial patterns resulting from social and physical processes on the Earth. Essential theoretical concepts of quantitative geography are examined, including mapping the most and least, mapping density, finding what's inside, finding what's nearby, mapping change, understanding data distribution, and measuring geographic distribution.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:

- GIS134 - Geographic Info Systems

OR

Earn a minimum grade (UG) of D in the following:
- GME134 - Geographic Info Systems

Additional Comments:

GIS332 - Python for Geospatial Analysis

Overview

Course Subject Code
GIS

Course Number
332

Course Title
Python for Geospatial Analysis

Department
Applied Computing & Geomatics

Course Description
Customizing geoprocessing workflows with Python. Working with lists, and dictionaries. String manipulation. Branching. Error handling. Working with geometries. Use of cursors to access and manipulate spatial and non-spatial data. Tool creation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- GIS306 - Geospatial Raster Analysis

OR

Earn a minimum grade (UG) of D in the following:
- GIS316 - Geospatial Vector Analysis

Additional Comments:

GIS351 - GIS for Natural Resources

Overview

Course Subject Code
GIS

Course Number
351

Course Title
GIS for Natural Resources

Department
Applied Computing & Geomatics

Course Description
This course explores GIS applications in natural resource management, focusing on spatial analysis for conservation, land use, and wildfire risk. Students will collect field data using GIS applications, perform spatial modeling, and develop GIS products for environmental assessment and land management decisions.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
6

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type

Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- GIS134 - Geographic Info Systems

OR

Complete ALL of the following Courses:
- GEOG105 - Physical Geography

Additional Comments:

GIS407 - Seminar

Overview

Course Subject Code
GIS

Course Number
407

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GIS426 - Geospatial Vector Analysis II

Overview

Course Subject Code
GIS

Course Number
426

Course Title
Geospatial Vector Analysis II

Department
Applied Computing & Geomatics

Course Description
Advanced geospatial analysis. Spatial adjustment techniques. Extensive use of subtypes, domains, validation rules, and cardinalities. Use and creation of directed and undirected networks for geospatial analysis. Routing. Conflation. Quantitative assessment of geographic patterns and distributions. Geostatistics.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS432 - Customizing the GIS Envirn II

Overview

Course Subject Code
GIS

Course Number
432

Course Title
Customizing the GIS Envirn II

Department
Applied Computing & Geomatics

Course Description
Creation and management of Add-Ins. Hosting feature and geoprocessing services. Introduction to the server environment and Portal for ArcGIS. Developing mobile GIS applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS435 - Remote Sensing II

Overview

Course Subject Code
GIS

Course Number
435

Course Title
Remote Sensing II

Department
Applied Computing & Geomatics

Course Description
This course explores how remote sensing systems provide and analyze geospatial information. Recent developments in Earth observation, such as imaging radar, LiDAR, and hyperspectral sensors, are increasing the wealth of information generated from remotely sensed data sources.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS445 - Spatial Data Acquisition:UAVS

Overview

Course Subject Code
GIS

Course Number
445

Course Title
Spatial Data Acquisition:UAVS

Department
Applied Computing & Geomatics

Course Description
This course covers UAV-based geospatial data acquisition, including flight planning, data collection, and processing using Pix4D, QGroundControl, Drone2Map, and ArcGIS Pro. Students gain hands-on experience with UAV photogrammetry and LIDAR, culminating in a project applying UAV data to real-world geospatial challenges.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
7

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course GIS134
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- GIS134 - Geographic Info Systems

Additional Comments:

GIS446 - GIS Database Development

Overview

Course Subject Code
GIS

Course Number
446

Course Title
GIS Database Development

Department
Applied Computing & Geomatics

Course Description
Advanced geodatabase design. Import and export of XML. Extensive use and creation of relationship classes. Study, use, design, and creation of data models. Design and creation of user interfaces of data entry. This course is a Capstone experience for the GIS option.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS456 - GIS Web Services & Management

Overview

Course Subject Code
GIS

Course Number
456

Course Title
GIS Web Services & Management

Department
Applied Computing & Geomatics

Course Description
Implementation of a GIS. Definition of information products. Discussion of the server-client relationship. Server site configuration and administration. Sharing GIS content on the web. Building web applications and services.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS526 - Geospatial Vector Analysis II

Overview

Course Subject Code
GIS

Course Number
526

Course Title
Geospatial Vector Analysis II

Department
Applied Computing & Geomatics

Course Description
This course aims to provide students with the essential skills and knowledge to find suitable locations, rate suitable locations, model paths, model flow, model interaction, and build networks.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

GIS535 - Remote Sensing II

Overview

Course Subject Code
GIS

Course Number
535

Course Title
Remote Sensing II

Department
Applied Computing & Geomatics

Course Description
This course explores how remote sensing systems provide geospatial information that is relevant, accurate, timely, accessible, available in an appropriate format, and cost-effective. Recent developments in Earth observation, such as imaging radar, LiDAR, and hyperspectral sensors, are increasing the wealth of information that can be generated from remotely sensed data sources. Consequently, numerous new GIS applications that rely on advanced remotely sensed data sources have emerged at local, regional and global scales.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME107 - Seminar

Overview

Course Subject Code
GME

Course Number
107

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME134 - Geographic Info Systems

Overview

Course Subject Code
GME

Course Number
134

Course Title
Geographic Info Systems

Department
Applied Computing & Geomatics

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Pre-Requisites

No Requirements

GME161 - Plane Surveying I

Overview

Course Subject Code
GME

Course Number
161

Course Title
Plane Surveying I

Department
Applied Computing & Geomatics

Course Description
Fundamental concepts of plane surveying including theory of measurements, systematic and random errors. Distance and angle measurement using total stations and differential leveling. Calculation of bearings, azimuths, coordinates, area and traverse adjustments. Introduction to horizontal and vertical curve computations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME162 - Plane Surveying II

Overview

Course Subject Code
GME

Course Number
162

Course Title
Plane Surveying II

Department
Applied Computing & Geomatics

Course Description
Digital theodolites and data collectors, instrument testing and observational error analysis. Theory of leveling. Solar observation and computation. E.D.M. use and calibration. Field labs including solar observations, traversing, leveling and horizontal curve layout. Introduction to COGO software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME163 - Route Surveying

Overview

Course Subject Code
GME

Course Number
163

Course Title
Route Surveying

Department
Applied Computing & Geomatics

Course Description
Laboratory intensive project overview including horizontal and vertical control for preliminary location and construction surveys for a secondary road. Instruction in basic elements of horizontal and vertical route alignment and layout. Determination of earthwork quantities. CAD drafting of plan, profile and cross-sections.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME175 - Computations and Platting

Overview

Course Subject Code
GME

Course Number
175

Course Title
Computations and Platting

Department
Applied Computing & Geomatics

Course Description
Coordinate geometry concepts with emphasis on solutions to standard surveying computations. Introduction to calculator and Excel spreadsheet computations. Introduction to map composition and platting using industry standard software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME207 - Seminar

Overview

Course Subject Code
GME

Course Number
207

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME241 - Legal Aspects of Land Surv I

Overview

Course Subject Code
GME

Course Number
241

Course Title
Legal Aspects of Land Surv I

Department
Applied Computing & Geomatics

Course Description
Statute law, common law, and legal principles relating to land boundaries. Each student will be required to use the county law library to research assigned cases.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

GME242 - Land Descrip & Cadastre

Overview

Course Subject Code
GME

Course Number
242

Course Title
Land Descrip & Cadastre

Department
Applied Computing & Geomatics

Course Description
Real property descriptions and land record systems. Emphasis on interpreting and writing land descriptions, and introduction to researching records in various Land Information Systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

GME264 - Digital Design for Surveying

Overview

Course Subject Code
GME

Course Number
264

Course Title
Digital Design for Surveying

Department
Applied Computing & Geomatics

Course Description
Use of Carlson software to solve and plot assignments covering traverse calculations, horizontal and vertical curve alignments, profiles and earthwork volumes. Hand calculations will be made to supplement the computer solutions.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME307 - Seminar

Overview

Course Subject Code
GME

Course Number
307

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME343 - Boundary Surveys

Overview

Course Subject Code
GME

Course Number
343

Course Title
Boundary Surveys

Department
Applied Computing & Geomatics

Course Description
Planning, organizing, calculating and applying field procedures for boundary and cadastral surveys. Writing deed descriptions; researching public record systems relative to property boundaries.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

GME351 - Constr/Engr Surveying

Overview

Course Subject Code
GME

Course Number
351

Course Title
Constr/Engr Surveying

Department
Applied Computing & Geomatics

Course Description
Organizing, planning and estimating costs for construction and engineering surveying projects. Field projects related to construction, layout of engineering works and site mapping.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME372 - Subdiv'n Planning and Platting

Overview

Course Subject Code
GME

Course Number
372

Course Title
Subdiv'n Planning and Platting

Department
Applied Computing & Geomatics

Course Description
Land use planning; governmental regulations as applied to subdivisions; subdivision planning, computations and preparation of subdivision plots.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME395 - Cooperative Field Experience

Overview

Course Subject Code
GME

Course Number
395

Course Title
Cooperative Field Experience

Department
Applied Computing & Geomatics

Course Description
An approved work program related to geomatics practice involving full-time meaningful activity. The employer, type of work and level of difficulty must be approved by the Geomatics Co-op Coordinator prior to the work period. Progress reports are prepared by the student during the work period and submitted for review. A comprehensive written report is required at the end of each co-op period. A co-op period may be three months for 2 credits or six months for 4 credits. A tuition fee is required for credits earned by co-op work experience. Prerequisites: Completed freshman year and two terms residence

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
40

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME396 - Cooperative Field Practice

Overview

Course Subject Code
GME

Course Number
396

Course Title
Cooperative Field Practice

Department
Applied Computing & Geomatics

Course Description
Three month, two credit hour version of GME 395 and GME 495.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Externship/ Practicum, SR GR Capstone Project COOP, *Experiential

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
40

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME407 - Seminar

Overview

Course Subject Code
GME

Course Number
407

Course Title
Seminar

Department
Applied Computing & Geomatics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME425 - Remote Sensing

Overview

Course Subject Code
GME

Course Number
425

Course Title
Remote Sensing

Department
Applied Computing & Geomatics

Course Description
Photogrammetry and remote sensing preparation for FS exam. UAS (drone) technology overview. UAS fights to obtain imagery and process using Pix4d software to create DSMs, orthomosaics, and other products. Overview of high-resolution satellite imagery applications and commercial aerial mapping imagery.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME444 - Adjustment by Least Squares

Overview

Course Subject Code
GME

Course Number
444

Course Title
Adjustment by Least Squares

Department
Applied Computing & Geomatics

Course Description
Theory of the least squares method and error propagation; variances and co-variances of observed, derived and adjusted quantities. Modeling of geomatics problems using different techniques of least squares. Linearization and iteration of nonlinear equations. Adjustment validation using hypothesis testing.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

GME451 - Geodesy

Overview

Course Subject Code
GME

Course Number
451

Course Title
Geodesy

Department
Applied Computing & Geomatics

Course Description
Size and shape of the earth. Geometry of the reference ellipsoid. Spherical, ellipsoidal and local coordinate systems. Coordinate transformations in 2-D and 3-D. Datums and datum conversion. Reduction of field observations to the ellipsoid. The geoid, orthometric heights, and leveling.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

GME452 - Map Projections

Overview

Course Subject Code
GME

Course Number
452

Course Title
Map Projections

Department
Applied Computing & Geomatics

Course Description
Overview of map projections used in cartography, and conformal map projections used in the geomatics profession. Emphasis on state plane coordinate systems and local map projections. Extensive use of Excel for analysis and computations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME454 - GNSS Surveying

Overview

Course Subject Code
GME

Course Number
454

Course Title
GNSS Surveying

Department
Applied Computing & Geomatics

Course Description
Study of the theory and operation of the Global Positioning System and other Global Navigation Satellite Systems. Design of GPS networks in accordance with current standards and specifications. Laboratory exercises introduce the student to a variety of GNSS applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME466 - Legal Aspects of Land Surv II

Overview

Course Subject Code
GME

Course Number
466

Course Title
Legal Aspects of Land Surv II

Department
Applied Computing & Geomatics

Course Description
Evidence, professional liability, written and unwritten transfers of land ownership and title interests. A term paper is required of each student.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

GME468 - Geomatics Practicum

Overview

Course Subject Code
GME

Course Number
468

Course Title
Geomatics Practicum

Department
Applied Computing & Geomatics

Course Description
Students design and complete a Geomatics project. Students demonstrate ability to work independently. Projects are under supervision of faculty members and comply with any related state statutes and local ordinances. Surveying option students are required to have registered for, or take, the NCEES FS examination to receive a passing course grade.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

GME495 - Cooperative Field Experience

Overview

Course Subject Code
GME

Course Number
495

Course Title
Cooperative Field Experience

Department
Applied Computing & Geomatics

Course Description
An approved work program related to the geomatics practice involving full-time meaningful activity. The employer, type of work and level of difficulty must be approved by the Geomatics Co-Op Coordinator prior to the work period and submitted for review. A comprehensive written report is required at the end of each co-op period. A co-op period may be three months for 2 credits or six months for 4 credits. A tuition fee is required for credits earned by co-op work experience. Prerequisites: Completed freshman year and two terms residence

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP, Externship/Practicum, *Experiential

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
40

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME496 - Cooperative Field Practice

Overview

Course Subject Code
GME

Course Number
496

Course Title
Cooperative Field Practice

Department
Applied Computing & Geomatics

Course Description
Three month, two credit hour version of GME 395 and GME 495.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
40

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

GME497 - CFedS

Overview

Course Subject Code
GME

Course Number
497

Course Title
CFedS

Department
Applied Computing & Geomatics

Course Description
Provides academic credit for licensed professional land surveyors who successfully completed the rigorous BLM Certified Federal Surveyor (CFedS) examination. Prerequisite: Successful completion of the CFedS examination

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

HED107 - Seminar

Overview

Course Subject Code
HED

Course Number
107

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HED207 - Seminar

Overview

Course Subject Code
HED

Course Number
207

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours
Min
1

Billing Hours
Max
12

Billing Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HED240 - Emergency Care and CPR

Overview

Course Subject Code
HED

Course Number
240

Course Title
Emergency Care and CPR

Department
Health Sciences

Course Description
Comprehensive coverage of emergency care for a wide variety of injuries or illnesses. Course content includes artificial respiration and cardiopulmonary resuscitation, wounds, and bleeding; shock; burns; poisonings; bone, joint, and muscle injuries; cold and heat-related injuries; alcohol and drug emergencies; and methods of transportation. Emphasis on victim examination, evaluation, and assessment tools and appropriate immediate and temporary care.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

HED260 - Diet/Exer Life Fitness

Overview

Course Subject Code
HED

Course Number
260

Course Title
Diet/Exer Life Fitness

Department
Health Sciences

Course Description
Practical concepts of nutrition and exercise, their role in disease risk, obesity, and weight control. Consumer concerns, advertising, fads, gimmicks. Fitness and dietary evaluations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

HED275 - Intro to Sports Medicine

Overview

Course Subject Code
HED

Course Number
275

Course Title
Intro to Sports Medicine

Department
Health Sciences

Course Description
An introduction to the principles and practice of sports medicine. Emphasis on the prevention and treatment of common sports injuries. Instruction includes understanding the basic mechanisms behind injury and practical experience in preventative measures and basic treatment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

HED307 - Seminar

Overview

Course Subject Code
HED

Course Number
307

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HED407 - Seminar

Overview

Course Subject Code
HED

Course Number
407

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
2

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
12

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HIST107 - Seminar

Overview

Course Subject Code
HIST

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HIST201 - US History

Overview

Course Subject Code
HIST

Course Number
201

Course Title
US History

Department
Humanities & Social Sciences

Course Description
The historical development of the United States, its economic, political, and social institutions from the colonial period to the present. Courses need not be taken in sequence. HIST 201: Pre-Columbian and colonial times to 1840. HIST 202: 1840, Westward expansion and the Civil War to 1899. HIST 203: 1900 to present.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST202 - US History

Overview

Course Subject Code
HIST

Course Number
202

Course Title
US History

Department
Humanities & Social Sciences

Course Description
The historical development of the United States, its economic, political, and social institutions from the colonial period to the present. Courses need not be taken in sequence. HIST 201: Pre-Columbian and colonial times to 1840. HIST 202: 1840, Westward expansion and the Civil War to 1899. HIST 203: 1900 to present.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST203 - US History

Overview

Course Subject Code
HIST

Course Number
203

Course Title
US History

Department
Humanities & Social Sciences

Course Description
The historical development of the United States, its economic, political, and social institutions from the colonial period to the present. Courses need not be taken in sequence. HIST 201: Pre-Columbian and colonial times to 1840. HIST 202: 1840, Westward expansion and the Civil War to 1899. HIST 203: 1900 to present.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST207 - Seminar

Overview

Course Subject Code
HIST

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HIST255 - History of Science

Overview

Course Subject Code
HIST

Course Number
255

Course Title
History of Science

Department
Humanities & Social Sciences

Course Description
This course examines the historical development of science from its origins to the present day and uses this as a basis for addressing some foundational questions about the nature of science and scientific reasoning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST275 - Intro to Hist of Medicine

Overview

Course Subject Code
HIST

Course Number
275

Course Title
Intro to Hist of Medicine

Department
Humanities & Social Sciences

Course Description
Introduction to the history of medicine, with a focus on American medicine in the 19th and 20th centuries. Topics include medical professionalization, the social, technological and economic structure of the medical industry, and medicine in popular culture.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST307 - Seminar

Overview

Course Subject Code
HIST

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HIST336 - The Medical Profession

Overview

Course Subject Code
HIST

Course Number
336

Course Title
The Medical Profession

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST356 - A History of Energy

Overview

Course Subject Code
HIST

Course Number
356

Course Title
A History of Energy

Department
Humanities & Social Sciences

Course Description
Study of emphasis societies place on the development, safeguarding and exploitation of energy resources. Development of energy resources since the Industrial Revolution; exploitation of energy resources; oil shocks of the 1970s, glut of the 1980s; the modern energy paradigm.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Cap Project COOP Lab, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST407 - Seminar

Overview

Course Subject Code
HIST

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
13

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HIST452 - Globalization & Pac NW

Overview

Course Subject Code
HIST

Course Number
452

Course Title
Globalization & Pac NW

Department
Humanities & Social Sciences

Course Description
This seminar addresses globalization in the PNW. Topics include colonialism, mercantilism, markets, imperialism, and cultural exchange. PNW industries involved in globalization such as timber, fishing, agriculture, tourism, and oil will be examined. Social movements and protests will also be considered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HIST468 - History of the Pacific NW

Overview

Course Subject Code
HIST

Course Number
468

Course Title
History of the Pacific NW

Department
Humanities & Social Sciences

Course Description
This course will cover the history of the Pacific Northwest including Native American settlements, exploration and later American settlements. It will include the impacts of institutional growth, urbanization, and resource development. The impact of national events upon the region will be explored.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM000 - Humanities Elective Lower

Overview

Course Subject Code
HUM

Course Number
000

Course Title
Humanities Elective Lower

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Pre-Requisites

No Requirements

HUM00U - Humanities Elective Upper

Overview

Course Subject Code
HUM

Course Number
00U

Course Title
Humanities Elective Upper

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

HUM105 - Intro to the Humanities

Overview

Course Subject Code
HUM

Course Number
105

Course Title
Intro to the Humanities

Department
Humanities & Social Sciences

Course Description
Introduction to humanistic methods of critical analysis. How to effectively and thoroughly analyze, discuss, and criticize works of fiction. Media studied may include literature, visual art, film, the graphic novel, and/or video games.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

HUM107 - Seminar

Overview

Course Subject Code
HUM

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HUM125 - Intro Tech, Soc, Value

Overview

Course Subject Code
HUM

Course Number
125

Course Title
Intro Tech, Soc, Value

Department
Humanities & Social Sciences

Course Description
An introduction to the relationship of economic, political and social contexts to technological development with a focus on human values.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM147 - West Cult in the Classical Age

Overview

Course Subject Code
HUM

Course Number
147

Course Title
West Cult in the Classical Age

Department
Humanities & Social Sciences

Course Description
Study of the ideas and values from the classical period which have profoundly influenced Western culture. Readings and discussion will focus on arts, literature, and philosophy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM148 - West Cult in the Medieval Age

Overview

Course Subject Code
HUM

Course Number
148

Course Title
West Cult in the Medieval Age

Department
Humanities & Social Sciences

Course Description
Study of the ideas and values from the early Medieval to the Renaissance period which have profoundly influenced Western culture. Readings and discussion will focus on arts, literature, and philosophy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM207 - Seminar

Overview

Course Subject Code
HUM

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HUM235 - Introduction to Film

Overview

Course Subject Code
HUM

Course Number
235

Course Title
Introduction to Film

Department
Humanities & Social Sciences

Course Description
Introduction to film history and appreciation. Students will engage with film across periods, genres, and national traditions to develop their understanding and analysis of the art of cinema. Film making techniques and the evolution of film culture are addressed. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
2

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM245 - Digital Culture and Society

Overview

Course Subject Code
HUM

Course Number
245

Course Title
Digital Culture and Society

Department
Humanities & Social Sciences

Course Description
In this class, students will study and analyze internet culture through a humanistic lens. Topics discussed may include online identity construction, social media's effects on relationships, the digital divide, the internet's influence on politics, and online representation for marginalized groups.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM304P - Intro to Short Story

Overview

Course Subject Code
HUM

Course Number
304P

Course Title
Intro to Short Story

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM307 - Seminar

Overview

Course Subject Code
HUM

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HUM335 - Video Game Studies

Overview

Course Subject Code
HUM

Course Number
335

Course Title
Video Game Studies

Department
Humanities & Social Sciences

Course Description
Students will learn about the field of game studies by analyzing video games and video game culture from a literary analysis perspective. We will read essays and criticism about video games, but also play games and discuss our experiences.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM345 - Digital Culture and Society

Overview

Course Subject Code
HUM

Course Number
345

Course Title
Digital Culture and Society

Department
Humanities & Social Sciences

Course Description
In this class, students will study and analyze internet culture through a humanistic lens. Topics discussed may include online identity construction, social media's effects on relationships, the digital divide, the internet's influence on politics, and online representation for marginalized groups.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM365P - Adv Intercultural Comm

Overview

Course Subject Code
HUM

Course Number
365P

Course Title
Adv Intercultural Comm

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, *Electronic Distance Learning, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

HUM407 - Seminar

Overview

Course Subject Code
HUM

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

HUMP00 - Hum Elective Lower Performance

Overview

Course Subject Code
HUM

Course Number
P00

Course Title
Hum Elective Lower Performance

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

HUMP0U - Hum Elective Upper Performance

Overview

Course Subject Code
HUM

Course Number
P0U

Course Title
Hum Elective Upper Performance

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

IMGT323P - Operational Budgeting

Overview

Course Subject Code
IMGT

Course Number
323P

Course Title
Operational Budgeting

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

IMGT499P - Multinational Operations

Overview

Course Subject Code
IMGT

Course Number
499P

Course Title
Multinational Operations

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

JOUR107 - Seminar

Overview

Course Subject Code
JOUR

Course Number
107

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

JOUR207 - Seminar

Overview

Course Subject Code
JOUR

Course Number
207

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

JOUR211 - Intro to Journalism

Overview

Course Subject Code
JOUR

Course Number
211

Course Title
Intro to Journalism

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

JOUR307 - Seminar

Overview

Course Subject Code
JOUR

Course Number
307

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

JOUR407 - Seminar

Overview

Course Subject Code
JOUR

Course Number
407

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

LDT000 - Lower Division Transfer

Overview

Course Subject Code
LDT

Course Number
000

Course Title
Lower Division Transfer

Department
Department Not Declared

College/School
General Studies

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Pre-Requisites

No Requirements

LIS305 - Research Strategies

Overview

Course Subject Code
LIS

Course Number
305

Course Title
Research Strategies

Department
Library

Course Description
Designed to guide students in senior projects, professional and graduate research. Understand information access, use, and synthesis, literature reviews, inquiry development, and research design. Recognize and practice ethical information use across professions. Articulate applications and limitations of researched topics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIS307 - Seminar

Overview

Course Subject Code
LIS

Course Number
307

Course Title
Seminar

Department
Library

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Seminar, *Computer-Accessed Course, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

LIT104 - Intro to Literature

Overview

Course Subject Code
LIT

Course Number
104

Course Title
Intro to Literature

Department
Humanities & Social Sciences

Course Description
Literature and the nature of literary experience through reading prose and poetry drawn from American and other literatures. Works representing principal literary types are read in their entirety when possible, with emphasis on such elements as structure, style, characterization, imagery, and symbolism.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT105 - Intro to Literature

Overview

Course Subject Code
LIT

Course Number
105

Course Title
Intro to Literature

Department
Humanities & Social Sciences

Course Description
Literature and the nature of literary experience through reading prose and poetry drawn from American and other literatures. Works representing principal literary types are read in their entirety when possible, with emphasis on such elements as structure, style, characterization, imagery, and symbolism.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT106 - Intro to Literature

Overview

Course Subject Code
LIT

Course Number
106

Course Title
Intro to Literature

Department
Humanities & Social Sciences

Course Description
Literature and the nature of literary experience through reading prose and poetry drawn from American and other literatures. Works representing principal literary types are read in their entirety when possible, with emphasis on such elements as structure, style, characterization, imagery, and symbolism.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT107 - Seminar

Overview

Course Subject Code
LIT

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

LIT207 - Seminar

Overview

Course Subject Code
LIT

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

LIT225 - Cont Thter: Ashland Plays

Overview

Course Subject Code
LIT

Course Number
225

Course Title
Cont Thter: Ashland Plays

Department
Humanities & Social Sciences

Course Description
Contemporary live drama viewed at Ashland Shakespearean Festival Theater. Review and analysis of original script prior to play experience. Post review and analysis of play performance, content: plot, character, diction, melody, spectacle.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT246 - Creative Writing

Overview

Course Subject Code
LIT

Course Number
246

Course Title
Creative Writing

Department
Humanities & Social Sciences

Course Description
Examines the elements, structures and traditions of fiction writing through readings, discussions, and creative writing exercises. For students interested in writing fiction. Prerequisite: WRI 122.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT305 - American Nature Writing

Overview

Course Subject Code
LIT

Course Number
305

Course Title
American Nature Writing

Department
Humanities & Social Sciences

Course Description
Students will study how our perception of the environment has changed over the last two hundred years of Western culture. We will analyze the works of well-known nature writers as well as other related texts from a literary studies perspective.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- WRI227Z - Technical Writing

OR

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

OR

Earn a minimum grade (UG) of D in the following:
- WRI121Z - Composition I

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI121 - English Composition (Inactive)

Additional Comments:

LIT307 - Seminar

Overview

Course Subject Code
LIT

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

LIT315 - Science Fiction Lit & Film

Overview

Course Subject Code
LIT

Course Number
315

Course Title
Science Fiction Lit & Film

Department
Humanities & Social Sciences

Course Description
Study of science fiction literature and film as expressions of the relationship between technology and culture(s). Approach will primarily be from a literary analysis perspective, with elements of film studies included.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

OR

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI227Z - Technical Writing

Additional Comments:

LIT325 - Lit of the Built Environment

Overview

Course Subject Code
LIT

Course Number
325

Course Title
Lit of the Built Environment

Department
Humanities & Social Sciences

Course Description
Study of the history of the modern city in Western culture from a literary analysis perspective. Students discuss works of literature, film, and relevant scholarship dealing with our relationship with space and place.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI121 - English Composition (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI227Z - Technical Writing

OR

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

OR

Earn a minimum grade (UG) of D in the following:
- WRI121Z - Composition I

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

Additional Comments:

LIT345 - Postapocalyptic Lit & Film

Overview

Course Subject Code
LIT

Course Number
345

Course Title
Postapocalyptic Lit & Film

Department
Humanities & Social Sciences

Course Description
Inquiry into the recent popularity of post-apocalyptic themed literature and films. Study of post-apocalyptic subgenres including natural disasters, rogue artificial intelligence, zombies, etc. and the historic cultural context from which they each have emerged.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, *Computer-Accessed Course, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:

- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:

- WRI122Z - Composition II

Additional Comments:

LIT346 - Creative Writing

Overview

Course Subject Code
LIT

Course Number
346

Course Title
Creative Writing

Department
Humanities & Social Sciences

Course Description
Examines the elements, structures and traditions of fiction writing through readings, discussions, and creative writing exercises. For students interested in writing fiction.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

LIT407 - Seminar

Overview

Course Subject Code
LIT

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MASC000 - Math/Science Elective Lower

Overview

Course Subject Code
MASC

Course Number
000

Course Title
Math/Science Elective Lower

Department
Department Not Declared

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

MASC00U - Math/Science Elective Upper

Overview

Course Subject Code
MASC

Course Number
00U

Course Title
Math/Science Elective Upper

Department
Department Not Declared

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

MASCL00 - Math/Science Elective Lower Lb

Overview

Course Subject Code
MASC

Course Number
L00

Course Title
Math/Science Elective Lower Lb

Department
Department Not Declared

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

MASCL0U - Math/Science Elective Upper Lb

Overview

Course Subject Code
MASC

Course Number
L0U

Course Title
Math/Science Elective Upper Lb

Department
Department Not Declared

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

MATH070 - Elementary Algebra

Overview

Course Subject Code
MATH

Course Number
070

Course Title
Elementary Algebra

Department
Applied Mathematics

Course Description
For students whose preparation contains no algebra background or whose placement examination scores do not qualify for entry into Intermediate Algebra. The topics covered stress the fundamental properties of algebra, solving equations, and manipulating algebraic fractions. Credits earned apply for enrollment (eligibility) but do not apply toward a degree. An additional fee is required above regular tuition. Prerequisite: MATH 20 with grade "C" or better or equivalent.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH097 - Algebra Review

Overview

Course Subject Code
MATH

Course Number
097

Course Title
Algebra Review

Department
Applied Mathematics

Course Description
Structured review for students whose Math Placement score may not reflect an accurate evaluation or students who want a refresher but who do not require a math placement. The course has individualized directed study using a comprehensive programmed instructional technology. Course is graded P/NP.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH100 - Intermediate Algebra

Overview

Course Subject Code
MATH

Course Number
100

Course Title
Intermediate Algebra

Department
Applied Mathematics

Course Description
Fundamentals of algebra, linear and quadratic equations, systems of equations, inequalities, functions and graphs, radicals and exponents, and stated problems. (May not be used for graduation credit.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH101 - Accelerated Algebra

Overview

Course Subject Code
MATH

Course Number
101

Course Title
Accelerated Algebra

Department
Applied Mathematics

Course Description
An accelerated algebra course with topics ranging from Elementary Algebra (MATH 70) to College Algebra (MATH 111). For entering students with good high-school algebra backgrounds. All students will start in Elementary Algebra, and may receive credit for one of MATH 70, MATH 100, or MATH 111, depending on individual level of achievement. An additional self-support course fee is required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH105Z - Math in Society

Overview

Course Subject Code
MATH

Course Number
105Z

Course Title
Math in Society

Department
Applied Mathematics

Course Description
An exploration of present-day applications of mathematics focused on developing numeracy. Major topics include quantitative reasoning and problem-solving strategies, probability and statistics, and financial mathematics; these topics are to be weighted approximately equally. This course emphasizes mathematical literacy and communication, relevant everyday applications, and the appropriate use of current technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH107 - Seminar

Overview

Course Subject Code
MATH

Course Number
107

Course Title
Seminar

Department
Applied Mathematics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MATH111A - College Algebra

Overview

Course Subject Code
MATH

Course Number
111A

Course Title
College Algebra

Department
Applied Mathematics

Course Description
For students requiring MATH 111 but desiring to learn the material at a slower pace. MATH 111 content covered upon completion of MATH 111A and MATH 111B.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
2

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH111Z - Precalculus I: Functions

Overview

Course Subject Code
MATH

Course Number
111Z

Course Title
Precalculus I: Functions

Department
Applied Mathematics

Course Description
A course primarily designed for students preparing for trigonometry or calculus. This course focuses on functions and their properties, including polynomial, rational, exponential, logarithmic, piecewise-defined, and inverse functions. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH112Z - Precalculus II: Trigonometry

Overview

Course Subject Code
MATH

Course Number
112Z

Course Title
Precalculus II: Trigonometry

Department
Applied Mathematics

Course Description
A course primarily designed for students preparing for calculus and related disciplines. This course explores trigonometric functions and their applications as well as the language and measurement of angles, triangles, circles, and vectors. These topics will be explored symbolically, numerically, and graphically in real-life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH207 - Seminar

Overview

Course Subject Code
MATH

Course Number
207

Course Title
Seminar

Department
Applied Mathematics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MATH251 - Differential Calculus

Overview

Course Subject Code
MATH

Course Number
251

Course Title
Differential Calculus

Department
Applied Mathematics

Course Description
Theory, computational techniques and applications of the derivative.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH251Z - Differential Calculus

Overview

Course Subject Code
MATH

Course Number
251Z

Course Title
Differential Calculus

Department
Applied Mathematics

Course Description
This course explores limits, continuity, derivatives, and their applications for real-valued functions of a single variable. These topics will be explored graphically, numerically, and symbolically in real-life applications. This course emphasizes abstraction, problem-solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of C in the following:
- MATH112Z - Precalculus II: Trigonometry

OR

A minimum test score of '251' on Test OMPC

OR

Earn a minimum grade (UG) of C in the following:
- MATH112 - Trigonometry (Inactive)

OR

A minimum test score of '112' on Test M97

OR

A minimum test score of '100' on Test OCLM

OR

A minimum test score of '076' on Test OALEKS

Additional Comments:

MATH252 - Integral Calculus

Overview

Course Subject Code
MATH

Course Number
252

Course Title
Integral Calculus

Department
Applied Mathematics

Course Description
Computational techniques for and applications of the definite and indefinite integrals.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH252Z - Integral Calculus

Overview

Course Subject Code
MATH

Course Number
252Z

Course Title
Integral Calculus

Department
Applied Mathematics

Course Description
This course explores Riemann sums, definite integrals, and indefinite integrals for real-valued functions of a single variable. These topics will be explored graphically, numerically, and symbolically in real-life applications. This course emphasizes abstraction, problem-solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of C in the following:
- MATH251 - Differential Calculus

OR

Earn a minimum grade (UG) of C in the following:
- MATH251Z - Differential Calculus

Additional Comments:

MATH253 - Sequences and Series

Overview

Course Subject Code
MATH

Course Number
253

Course Title
Sequences and Series

Department
Applied Mathematics

Course Description
Indeterminate forms and improper integrals. Infinite sequences and series, convergence, power series. Taylor series and applications. This course replaces MATH 254.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH253P - Multi/Vector Calc

Overview

Course Subject Code
MATH

Course Number
253P

Course Title
Multi/Vector Calc

Department
Applied Mathematics

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture, Independent Study, *Electronic Distance Learning

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
4

Lecture Hours
Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

MATH253Z - Calculus: Sequences and Series

Overview

Course Subject Code
MATH

Course Number
253Z

Course Title
Calculus: Sequences and Series

Department
Applied Mathematics

Course Description
This course explores real-valued sequences and series, including power and Taylor series. Topics include convergence and divergence tests and applications. These topics will be explored graphically, numerically, and symbolically. This course emphasizes abstraction, problem-solving, reasoning, communication, connections with other disciplines, and the appropriate use of technology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of C in the following:
- MATH252Z - Integral Calculus

OR

Earn a minimum grade (UG) of C in the following:
- MATH252 - Integral Calculus

Additional Comments:

MATH254 - Vector Calculus I

Overview

Course Subject Code
MATH

Course Number
254

Course Title
Vector Calculus I

Department
Applied Mathematics

Course Description
Vectors, vector functions, and curves in two and three dimensions. Surfaces, partial derivatives, gradients, and directional derivatives. Multiple integrals using rectangular and other coordinate systems. Physical and geometric applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH307 - Seminar

Overview

Course Subject Code
MATH

Course Number
307

Course Title
Seminar

Department
Applied Mathematics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MATH310 - Mathematical Structures

Overview

Course Subject Code
MATH

Course Number
310

Course Title
Mathematical Structures

Department
Applied Mathematics

Course Description
Introduction to proof and mathematical abstraction. Topics include logical statements, sets, set operations, functions, and relations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

MATH311 - Introduction to Real Analysis

Overview

Course Subject Code
MATH

Course Number
311

Course Title
Introduction to Real Analysis

Department
Applied Mathematics

Course Description
A one quarter stand-alone course on topics in real analysis, covering properties of real numbers, completeness axiom, continuity, convergence of sequences and series of real numbers, convergence of sequences and series of functions. Emphasis will be placed on proofs.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH315 - History of Mathematics

Overview

Course Subject Code
MATH

Course Number
315

Course Title
History of Mathematics

Department
Applied Mathematics

Course Description
This course will explore major themes in mathematics and their development throughout history from cultures around the world. The course will address different perspectives on mathematics and how it influenced the growth of the field and the cultures it was developed in.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH321 - Appl Diff Equation I

Overview

Course Subject Code
MATH

Course Number
321

Course Title
Appl Diff Equation I

Department
Applied Mathematics

Course Description
The first in a two term sequence on the solutions of ordinary differential equations. Introduction to differential equations, first and second order equations with applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH322 - Appl Diff Equation II

Overview

Course Subject Code
MATH

Course Number
322

Course Title
Appl Diff Equation II

Department
Applied Mathematics

Course Description
The second in a two quarter sequence on the solutions of ordinary differential equations. Introduction to systems of equations, the Laplace transform and series solutions.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH327 - Discrete Mathematics

Overview

Course Subject Code
MATH

Course Number
327

Course Title
Discrete Mathematics

Department
Applied Mathematics

Course Description
Introduction to proof and mathematical abstraction. Topics include sets, set operations, functions, relations, sequences, series, recurrence relations, mathematical induction, equivalence relations. Must have passed MATH 252, or be of junior standing and have taken MATH 111, both with a "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH341 - Linear Algebra I

Overview

Course Subject Code
MATH

Course Number
341

Course Title
Linear Algebra I

Department
Applied Mathematics

Course Description
The study of vectors and matrices in Euclidean space, their geometric interpretations and application to systems of equations. Includes linear independence of vectors, basis and dimension, introduction to linear transformations, eigenvalues and eigenvectors, diagonalization, determinants.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH342 - Linear Algebra II

Overview

Course Subject Code
MATH

Course Number
342

Course Title
Linear Algebra II

Department
Applied Mathematics

Course Description
A continuation of the topics of MATH 341 to the setting of abstract vector spaces. Includes the study of orthogonality, inner spaces, eigenvalues and eigenvectors, matrix decompositions and a more advanced study of linear transformations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH346 - Number Theory

Overview

Course Subject Code
MATH

Course Number
346

Course Title
Number Theory

Department
Applied Mathematics

Course Description
A proof-based course in the theory of integers, including divisibility, primes, Euclid's Algorithm, Euler's Theorem, and an introduction to algebraic structures. The course also includes applications of number theory such as RSA encryption.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH347 - Fundmtls of Abstract Algebra

Overview

Course Subject Code
MATH

Course Number
347

Course Title
Fundmtls of Abstract Algebra

Department
Applied Mathematics

Course Description
Introduction to group theory and algebraic structures with applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH354 - Vector Calculus II

Overview

Course Subject Code
MATH

Course Number
354

Course Title
Vector Calculus II

Department
Applied Mathematics

Course Description
Review of vector functions, space curves, gradients, and directional derivatives. Introduction to vector analysis: vector fields, divergence, curl, line integrals, surface integrals, conservation fields, and the theorems of Gauss, Green and Stokes with application to force, work, mass and charge.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH361 - Statistical Methods I

Overview

Course Subject Code
MATH

Course Number
361

Course Title
Statistical Methods I

Department
Applied Mathematics

Course Description
Descriptive statistics, experimental design, introduction to probability, common probability distributions, random variables, sampling distributions, hypothesis testing and confidence intervals for means using one or two samples, simple linear regression.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH362 - Statistical Methods II

Overview

Course Subject Code
MATH

Course Number
362

Course Title
Statistical Methods II

Department
Applied Mathematics

Course Description
Review of inferential statistics, analysis of variance one factor and two factor, simple and multiple regression, analysis of categorical data using tests and confidence intervals for proportions and chi-square tests, correlation, goodness of fit, non-parametric tests. Data sets used will come from various fields including: business, psychology, biology, environmental science, engineering, manufacturing and communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH371 - Finite Math/Calc I

Overview

Course Subject Code
MATH

Course Number
371

Course Title
Finite Math/Calc I

Department
Applied Mathematics

Course Description
Linear functions, matrices, linear programming, mathematics of finance, derivatives and their applications. The integral and its applications, and calculus of several variables. (MATH 371 cannot be used for graduation credit by students who have taken MATH 251).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH372 - Finite Math/Calc II

Overview

Course Subject Code
MATH

Course Number
372

Course Title
Finite Math/Calc II

Department
Applied Mathematics

Course Description
Linear functions, matrices, linear programming, mathematics of finance, derivatives and their applications. The integral and its applications and calculus of several variables. (MATH 372 cannot be used for graduation credit by students who have taken MATH 251).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'C' in Course MATH371
Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- MATH371 - Finite Math/Calc I

Additional Comments:

MATH407 - Seminar

Overview

Course Subject Code
MATH

Course Number
407

Course Title
Seminar

Department
Applied Mathematics

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MATH421 - Applied Partial Diff Equations

Overview

Course Subject Code
MATH

Course Number
421

Course Title
Applied Partial Diff Equations

Department
Applied Mathematics

Course Description
The first course in a three quarter sequence in applied partial differential equations. Modeling physical systems using differential equations, classifying differential equations and introduction to the methods of solving partial differential equations (separation of variables, Fourier series, transform methods).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH422 - Applied Partial Diff Equtns II

Overview

Course Subject Code
MATH

Course Number
422

Course Title
Applied Partial Diff Equtns II

Department
Applied Mathematics

Course Description
The second course in a three quarter sequence in applied partial differential equations. Introduction to solution techniques using eigenvalues and Eigen functions. Presentation of Eigen functions which form orthogonal bases such as Bessel functions and Legendre polynomials.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH423 - Applied Partial Diff Equ III

Overview

Course Subject Code
MATH

Course Number
423

Course Title
Applied Partial Diff Equ III

Department
Applied Mathematics

Course Description
The third course in a three term sequence. Applications of linear and weakly nonlinear partial differential equations. Analytical solution techniques for parabolic, elliptic, and hyperbolic equations. Green's functions, integral methods, shocks, and the method of characteristics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH451 - Numerical Methods I

Overview

Course Subject Code
MATH

Course Number
451

Course Title
Numerical Methods I

Department
Applied Mathematics

Course Description
Computer applications of matrix methods, iterative solutions of equations, and systems of equations, polynomial interpolation and curve fitting, numerical differentiation and integration. Prerequisites: Programming language.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH452 - Numerical Methods II

Overview

Course Subject Code
MATH

Course Number
452

Course Title
Numerical Methods II

Department
Applied Mathematics

Course Description
Numerical solution of ordinary differential equations. Numerical solution of initial-value problems using Runge-Kutta methods and linear multistep methods; introduction to boundary value problems. Analysis of stability, accuracy, and implementation of methods.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH453 - Numerical Methods III

Overview

Course Subject Code
MATH

Course Number
453

Course Title
Numerical Methods III

Department
Applied Mathematics

Course Description
Numerical solution of partial differential equations. Numerical solution of boundary value problems and initial-boundary value problems using finite difference and finite element methods. Analysis of stability, accuracy, and implementation of methods.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MATH465 - Mathematical Statistics

Overview

Course Subject Code
MATH

Course Number
465

Course Title
Mathematical Statistics

Department
Applied Mathematics

Course Description
Counting techniques, probability, discrete and continuous random variables and distribution functions, joint probability distributions; expected value, variance and covariance; decision making.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH107 - Seminar

Overview

Course Subject Code
MECH

Course Number
107

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours Operator
TO

Credit Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH111 - MMET Orientation

Overview

Course Subject Code
MECH

Course Number
111

Course Title
MMET Orientation

Department
Manufacturing & Mechanical Eng

Course Description
Topics include: survey of the engineering profession, educational and professional development, standards of practice; engineering information, calculations, and analysis. An engineering design project will be incorporated. This course provides knowledge and skills to engineering students which will benefit their future academic and professional endeavors.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

MECH207 - Seminar

Overview

Course Subject Code
MECH

Course Number
207

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MECH211 - Engineering Mechanics:Statics

Overview

Course Subject Code
MECH

Course Number
211

Course Title
Engineering Mechanics:Statics

Department
Manufacturing & Mechanical Eng

Course Description
Fundamental principles of mechanics of rigid bodies and the application of these principles to engineering problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:

- PHY221 - General Physics w/Calculus

OR

Earn a minimum grade (UG) of D in the following:
- PHY201 - General Physics

Additional Comments:

MECH212 - Engineering Mechanics:Dynamics

Overview

Course Subject Code
MECH

Course Number
212

Course Title
Engineering Mechanics:Dynamics

Department
Manufacturing & Mechanical Eng

Course Description
Kinematics of particles and rigid bodies. Kinetics of particles and rigid bodies in plane motion, including Newton's second law, work and energy, and impulse and momentum.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MECH211
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MECH211 - Engineering Mechanics:Statics

Additional Comments:

A minimum grade of 'D' in Course MATH252
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MATH252 - Integral Calculus

Additional Comments:

MECH213 - Engineering Mechanics:Material

Overview

Course Subject Code
MECH

Course Number
213

Course Title
Engineering Mechanics:Material

Department
Manufacturing & Mechanical Eng

Course Description
Internal stresses and deformations of structural members and machines when subjected to external forces.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MECH211
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MECH211 - Engineering Mechanics:Statics

Additional Comments:

A minimum grade of 'C' in Course MATH252
Type
Prerequisite

Earn a minimum grade (UG) of C in the following:
- MATH252 - Integral Calculus

Additional Comments:

MECH221 - Statics

Overview

Course Subject Code
MECH

Course Number
221

Course Title
Statics

Department
Manufacturing & Mechanical Eng

Course Description
Fundamental principles of mechanics if rigid bodies and the application of these principles to engineering problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH222 - Strength of Materials I

Overview

Course Subject Code
MECH

Course Number
222

Course Title
Strength of Materials I

Department
Manufacturing & Mechanical Eng

Course Description
Internal stresses and deformations of structural members and machines when subjected to external forces.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH223 - Strength of Materials II

Overview

Course Subject Code
MECH

Course Number
223

Course Title
Strength of Materials II

Department
Manufacturing & Mechanical Eng

Course Description
Internal stresses and deformations of structural members and machines when subjected to external forces. Analysis of stress in pressure vessels and column buckling.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH236 - Fund of Elec Circuits

Overview

Course Subject Code
MECH

Course Number
236

Course Title
Fund of Elec Circuits

Department
Manufacturing & Mechanical Eng

Course Description
Resistive circuits, operational amplifiers, capacitors, inductors, transient analysis, sine waves, AC circuit analysis, resonance, transformers. Not for Electronics Engineering Technology and Computer Engineering Technology students.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

MECH260 - Engineering Materials I

Overview

Course Subject Code
MECH

Course Number
260

Course Title
Engineering Materials I

Department
Manufacturing & Mechanical Eng

Course Description
Survey of materials with emphasis on metals and metal alloys used in industry; their physical and chemical properties as related to structure, corrosion, and engineering applications. Diffusion mechanisms and binary phase diagrams are also examined. Tensile, impact, and fatigue failure of metallic materials. Laboratory included.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

MECH266 - Engineering Computation

Overview

Course Subject Code
MECH

Course Number
266

Course Title
Engineering Computation

Department
Manufacturing & Mechanical Eng

Course Description
Programming and problem solving using current computer software. General programming techniques using conditional statements, looping, subroutines, and data input/output will be stressed. Consideration of features specific to the software being used will also be presented.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MATH112Z
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- MATH112Z - Precalculus II: Trigonometry

Additional Comments:

MECH307 - Seminar

Overview

Course Subject Code
MECH

Course Number
307

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MECH313 - Thermodynamics II

Overview

Course Subject Code
MECH

Course Number
313

Course Title
Thermodynamics II

Department
Manufacturing & Mechanical Eng

Course Description
Application of laws and principles of thermodynamics to real thermodynamic cycles. Teaches analysis of performance and design of internal and external combustion engines, steam generators, heat pumps, compressors, and refrigeration machinery.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH315 - Machine Design I

Overview

Course Subject Code
MECH

Course Number
315

Course Title
Machine Design I

Department
Manufacturing & Mechanical Eng

Course Description
Study of stress and fatigue analysis as applied to machine elements.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH316 - Machine Design II

Overview

Course Subject Code
MECH

Course Number
316

Course Title
Machine Design II

Department
Manufacturing & Mechanical Eng

Course Description
A study of power transmission systems components, selection, and application to power transmission systems. Special consideration is given to the dynamic characteristics of the systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH318 - Fluid Mechanics I

Overview

Course Subject Code
MECH

Course Number
318

Course Title
Fluid Mechanics I

Department
Manufacturing & Mechanical Eng

Course Description
Covers fluid properties, fluid statics, conservation laws, pipe flow, drag, lift fluid dynamics, measurement of flow, viscous flow, laminar, and turbulent flow, and forces due to fluid motion.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

MECH323 - Heat Transfer I

Overview

Course Subject Code
MECH

Course Number
323

Course Title
Heat Transfer I

Department
Manufacturing & Mechanical Eng

Course Description
An introduction to the three modes of heat transfer, conduction, convection, and radiation. Teaches the analytical and empirical techniques used for solving problems in heat transfer, including those for which computer application is most suited.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH326 - Electric Power Systems

Overview

Course Subject Code
MECH

Course Number
326

Course Title
Electric Power Systems

Department
Manufacturing & Mechanical Eng

Course Description
Study related to theory and application of industrial electric power systems. Topics covered include transformers, motors, generators, motor controls, and protective devices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course MECH236
Type
Prerequisite

Complete ALL of the following Courses:

- MECH236 - Fund of Elec Circuits

Additional Comments:

MECH351 - Finite Element Analysis

Overview

Course Subject Code
MECH

Course Number
351

Course Title
Finite Element Analysis

Department
Manufacturing & Mechanical Eng

Course Description
This course is an introduction to the use of finite analysis (FEA) in the solution of mechanical engineering problems. Existing FEA computer codes are used.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH355 - Thermodynamics

Overview

Course Subject Code
MECH

Course Number
355

Course Title
Thermodynamics

Department
Manufacturing & Mechanical Eng

Course Description
An introductory course in thermodynamics, the science of heat energy conversion. Develops understanding of energy, heat, work, efficiency, and ideal thermodynamic cycles. Teaches first and second laws of thermodynamics and perfect gas law.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

MECH360 - Engineering Materials II

Overview

Course Subject Code
MECH

Course Number
360

Course Title
Engineering Materials II

Department
Manufacturing & Mechanical Eng

Course Description
This course builds upon the concepts introduced in MECH 260 Engineering Materials I, adopting a more theoretical approach. It explores the fundamental principles of the Processing–Microstructure–Properties relationship in engineering materials. The course emphasizes the characteristics, processing methods, applications, and failure mechanisms of engineering materials, including metals, ceramics, polymers, and composites.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

All of the following requirements
Type
Prerequisite

Fulfill ALL of the following requirements:

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- MET160 - Materials I (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MECH260 - Engineering Materials I

AND

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- CHE201 - General Chemistry I

OR

Earn a minimum grade (UG) of D in the following:
- CHE221 - General Chemistry I

AND

Earn a minimum grade (UG) of D in the following:
- CHE227Z - General Chemistry I Lab

Additional Comments:

A minimum grade of 'D' in Course CHE221Z
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- CHE221Z - General Chemistry I

Additional Comments:

MECH363 - Engineering Instrumentation

Overview

Course Subject Code
MECH

Course Number
363

Course Title
Engineering Instrumentation

Department
Manufacturing & Mechanical Eng

Course Description
Study of measurement techniques and equipment used in mechanical engineering. Instrumentation for measurements in mechanics, thermodynamics, fluid dynamics, and electrical systems are considered. Methods of calibration, correction, and data reduction are presented.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH404 - Co-op Field Practice

Overview

Course Subject Code
MECH

Course Number
404

Course Title
Co-op Field Practice

Department
Manufacturing & Mechanical Eng

Course Description
(Terms and hours to be arranged with approval of the curriculum coordinator.) An approved work program related to the student's field of specialization for a continuous three-month period. The employer and the type, level, and difficulty of the particular job must be approved prior to the employment period. A written comprehensive report must be submitted during the following term of residence.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
SR GR Capstone Project COOP

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MECH405 - Reading and Conference

Overview

Course Subject Code
MECH

Course Number
405

Course Title
Reading and Conference

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MECH407 - Seminar

Overview

Course Subject Code
MECH

Course Number
407

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MECH415 - Occupational Safety

Overview

Course Subject Code
MECH

Course Number
415

Course Title
Occupational Safety

Department
Manufacturing & Mechanical Eng

Course Description
This course involves using material from prior course work in individual student projects.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MET242
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MET242 - CAD for Mechanical Design II

Additional Comments:

A minimum grade of 'D' in Course MECH318
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MECH318 - Fluid Mechanics I

Additional Comments:

A minimum grade of 'D' in Course MECH315
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MECH315 - Machine Design I

Additional Comments:

Enrolled in Course MECH316
Type
Prerequisite

Enroll in the following Courses:
- MECH316 - Machine Design II

Additional Comments:

MECH417 - Fluid Mechanics II

Overview

Course Subject Code
MECH

Course Number
417

Course Title
Fluid Mechanics II

Department
Manufacturing & Mechanical Eng

Course Description
Fluid Kinematics, differential analysis, similitude and modeling, and compressible flow. Computational fluid dynamics is introduced. An alternative to MECH 418. MECH 417 covers less topics/theory but does include a laboratory session.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH418 - Fluid Mechanics II

Overview

Course Subject Code
MECH

Course Number
418

Course Title
Fluid Mechanics II

Department
Manufacturing & Mechanical Eng

Course Description
A continuation of the study of the principles and applications of fluids in engineering, including: fluid kinematics, dimensional analysis and modeling, differential analysis of fluid flow, Navier-Stokes equations, compressible flow, open-channel flow, and turbomachinery. An alternative to MECH 417. MECH 418 covers more topics/theory but does not include a laboratory session.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH421 - Intro to Wind Tunnels

Overview

Course Subject Code
MECH

Course Number
421

Course Title
Intro to Wind Tunnels

Department
Manufacturing & Mechanical Eng

Course Description
An introductory course on the experimental techniques used in wind tunnel testing of aerodynamic shapes. Includes operating characteristics of wind tunnels, the characteristics of and use of models and model instrumentation, and the development of analytical techniques for reduction of wind tunnel data.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH426 - Fluid Power Systems

Overview

Course Subject Code
MECH

Course Number
426

Course Title
Fluid Power Systems

Department
Manufacturing & Mechanical Eng

Course Description
A mechanical approach to industrial hydraulic applications with emphasis on selection and function of hardware and interfacing of hydraulic systems with mechanical, fluidic, and electrical/electronic controls.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Independent Study, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

MECH433 - HVAC

Overview

Course Subject Code
MECH

Course Number
433

Course Title
HVAC

Department
Manufacturing & Mechanical Eng

Course Description
Heating, ventilation, and air conditioning. Application of laws and principles of thermodynamics to analysis, design, and control of mechanically controlled environments for human comfort, animal health, and food preservation. Teaches computation of heating and cooling loads, humidity control, heating, and refrigeration.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH436 - Classical Control Systems

Overview

Course Subject Code
MECH

Course Number
436

Course Title
Classical Control Systems

Department
Manufacturing & Mechanical Eng

Course Description
Introduction to control systems. Both classic-control theory and programmable logic controllers. Topics include block diagrams, mathematical models, transfer functions, LaPlace transforms, frequency response along with control components and PLC programming.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH437 - Heat Transfer II

Overview

Course Subject Code
MECH

Course Number
437

Course Title
Heat Transfer II

Department
Manufacturing & Mechanical Eng

Course Description
A study of experimental heat transfer. Methods and instrumentation used for investigating heat transfer systems will be considered. Laboratory investigations include studies of heat exchangers, forced and free convection experiments, and determination of radiation and convection coefficients.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH475 - Parametric Modeling

Overview

Course Subject Code
MECH

Course Number
475

Course Title
Parametric Modeling

Department
Manufacturing & Mechanical Eng

Course Description
Introduces feature-based parametric solid modeling techniques as applied to Mechanical Design. Emphasizes the concepts and practices of parametric modeling from the user's perspective. Theoretical and developmental backgrounds are also covered.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH480 - Mechanical Vibrations

Overview

Course Subject Code
MECH

Course Number
480

Course Title
Mechanical Vibrations

Department
Manufacturing & Mechanical Eng

Course Description
An introduction to mechanical vibration. Topics include the equations of motion, resonant frequencies, mode shapes, damping and applications. The laboratory will introduce vibration instrumentation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MECH485 - Fund of Engineering Exam Prep

Overview

Course Subject Code
MECH

Course Number
485

Course Title
Fund of Engineering Exam Prep

Department
Manufacturing & Mechanical Eng

Course Description
A preparation course covering the requirements of, and providing a review for, the NCEES FE exam. Senior standing in major required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

MECH490 - Senior Project I

Overview

Course Subject Code
MECH

Course Number
490

Course Title
Senior Project I

Department
Manufacturing & Mechanical Eng

Course Description
The first course of a three-term sequence that offers a capstone experience for students in an MMET program. This experience involves the application of knowledge and skills acquired from prior coursework to an engineered system, system optimization, project management, and material related to a group engineering project. This course will be focused on the proposal and planning stages of the project assigned. Senior standing in the BSME program and instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

MECH491 - Senior Projects II

Overview

Course Subject Code
MECH

Course Number
491

Course Title
Senior Projects II

Department
Manufacturing & Mechanical Eng

Course Description
The second course of a three-term sequence that offers a capstone experience for students in an MMET program. This experience involves the application of knowledge and skills acquired from prior coursework to an engineered system, system optimization, project management, and material related to a group engineering project. This course will be focused on the design and analysis of the project assigned. Prerequisites: MECH 490 previous term from same instructor or advisor and instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MECH490
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- MECH490 - Senior Project I

Additional Comments:

MECH492 - Senior Project III

Overview

Course Subject Code
MECH

Course Number
492

Course Title
Senior Project III

Department
Manufacturing & Mechanical Eng

Course Description
The third course of a three-term sequence that offers a capstone experience for students in an MMET program. This experience involves the application of knowledge and skills acquired from prior coursework to an engineered system, system optimization, project management, and material related to a group engineering project. This course will be focused on the implementation and assessment stages of the project assigned.. Prerequisites: MECH 491 previous term from same instructor or advisor and instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MECH491
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- MECH491 - Senior Projects II

Additional Comments:

MEET000 - Campus meetings

Overview

Course Subject Code
MEET

Course Number
000

Course Title
Campus meetings

Department
Department Not Declared

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

MET102P - Engineering Drawing II

Overview

Course Subject Code
MET

Course Number
102P

Course Title
Engineering Drawing II

Department
Manufacturing & Mechanical Eng

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, SR GR Cap Project COOP Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET107 - Seminar

Overview

Course Subject Code
MET

Course Number
107

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MET162P - Materials I Lab

Overview

Course Subject Code
MET

Course Number
162P

Course Title
Materials I Lab

Department
Manufacturing & Mechanical Eng

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET207 - Seminar

Overview

Course Subject Code
MET

Course Number
207

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MET241 - CAD for Mechanical Design I

Overview

Course Subject Code
MET

Course Number
241

Course Title
CAD for Mechanical Design I

Department
Manufacturing & Mechanical Eng

Course Description
Computer aided drafting (CAD) for mechanical design. The focus of this course is the construction of 2-D drawings using current industry software. Topics include construction principles, input schemes, command structures, and data management. Prerequisite: ENGR 111 or Instructor Consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET242 - CAD for Mechanical Design II

Overview

Course Subject Code
MET

Course Number
242

Course Title
CAD for Mechanical Design II

Department
Manufacturing & Mechanical Eng

Course Description
Computer aided drafting (CAD) for mechanical design. The focus of this course is the construction of drawing sets using current industry software. Topics include detail part drawings, assembly drawings, and an introduction to 3-D drafting.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET307 - Seminar

Overview

Course Subject Code
MET

Course Number
307

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MET326 - Electric Power Systems

Overview

Course Subject Code
MET

Course Number
326

Course Title
Electric Power Systems

Department
Manufacturing & Mechanical Eng

Course Description
Study related to theory and application of industrial electric power systems. Topics covered include transformers, motors, generators, motor controls, and protective devices.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET375 - Solid Modeling

Overview

Course Subject Code
MET

Course Number
375

Course Title
Solid Modeling

Department
Manufacturing & Mechanical Eng

Course Description
Introduces solid modeling techniques as applied to mechanical design. Topics include extruded and swept shapes, Boolean operations, and other construction techniques.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MET407 - Seminar

Overview

Course Subject Code
MET

Course Number
407

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MET492 - Senior Projects III

Overview

Course Subject Code
MET

Course Number
492

Course Title
Senior Projects III

Department
Manufacturing & Mechanical Eng

Course Description
The third of a three-term comprehensive group design project, focusing on project construction and testing. Prerequisite: MET 491 previous term from same instructor or advisor and instructor consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, SR GR Capstone Project COOP, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG103 - Intro Welding Proc

Overview

Course Subject Code
MFG

Course Number
103

Course Title
Intro Welding Proc

Department
Manufacturing & Mechanical Eng

Course Description
Applications of welding in modern industry. Topics include: Oxyacetylene welding and cutting, shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, and robotic welding. Prerequisite: Enrolled in any MMET Program or Instructor Consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG107 - Seminar

Overview

Course Subject Code
MFG

Course Number
107

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG110 - Machining Processes

Overview

Course Subject Code
MFG

Course Number
110

Course Title
Machining Processes

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG112 - Intro to Mfg Processes

Overview

Course Subject Code
MFG

Course Number
112

Course Title
Intro to Mfg Processes

Department
Manufacturing & Mechanical Eng

Course Description
A survey of common manufacturing processes, including a history of manufacturing technology. Manufacturing economic considerations. Influence of product design on process selection. Manufacturing taxonomy, surface finish, tolerances, and functional specifications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG120 - Intro Machining Proc

Overview

Course Subject Code
MFG

Course Number
120

Course Title
Intro Machining Proc

Department
Manufacturing & Mechanical Eng

Course Description
An introductory course in metal removal processes emphasizing drilling, milling, and lathe processes. Included tool bit grinding. Emphasis on production speeds and feeds.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG207 - Seminar

Overview

Course Subject Code
MFG

Course Number
207

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG222 - Foundry Practices

Overview

Course Subject Code
MFG

Course Number
222

Course Title
Foundry Practices

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MFG240 - Basic Tool and Production Plan

Overview

Course Subject Code
MFG

Course Number
240

Course Title
Basic Tool and Production Plan

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MFG271 - Numerical Control Prog

Overview

Course Subject Code
MFG

Course Number
271

Course Title
Numerical Control Prog

Department
Manufacturing & Mechanical Eng

Course Description
Introduction to manual numerical control programming. Includes interpreting part drawings, process planning, machining setup and sequence. Program debugging and introduction to tool path simulation and computer-aided programming tools.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- MATH251 - Differential Calculus

OR

Earn a minimum grade (UG) of D in the following:
- MATH112Z - Precalculus II: Trigonometry

OR

Earn a minimum grade (UG) of D in the following:
- MATH112 - Trigonometry (Inactive)

OR

Fulfill ANY of the following requirements:

A minimum test score of '075' on Test OCLM

OR

Earn a minimum grade (UG) of D in the following:
- MATH251Z - Differential Calculus

OR

Fulfill ALL of the following requirements:

A minimum test score of '112' on Test OMPC

OR

Earn a minimum grade (UG) of D in the following:

- MET242 - CAD for Mechanical Design II

OR

Earn a minimum grade (UG) of D in the following:
- MFG120 - Intro Machining Proc

OR

Earn a minimum grade (UG) of D in the following:
- MATH254N - Vector Calculus I (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- MATH253Z - Calculus: Sequences and Series

OR

Earn a minimum grade (UG) of D in the following:
- MATH253N - Sequences and Series (Inactive)

Additional Comments:

MFG272 - Computer Aided Machining

Overview

Course Subject Code
MFG

Course Number
272

Course Title
Computer Aided Machining

Department
Manufacturing & Mechanical Eng

Course Description
Development of CNC machine tool manufacturing programs using computer-aided process planning and advanced CAD/CAM software. Emphasis on analysis and planning required for successful CNC production, development of CAD drawings and solid models for CAM program development, toolpath simulation, and manufacturing engineering issues.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
5

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MFG271
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- MFG271 - Numerical Control Prog

Additional Comments:

MFG307 - Seminar

Overview

Course Subject Code
MFG

Course Number
307

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG312 - Manufacturing Analysis

Overview

Course Subject Code
MFG

Course Number
312

Course Title
Manufacturing Analysis

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Pre-Requisites

No Requirements

MFG313 - Mfg Analysis & Planning

Overview

Course Subject Code
MFG

Course Number
313

Course Title
Mfg Analysis & Planning

Department
Manufacturing & Mechanical Eng

Course Description
Overview of business analytics, the value of data in decision making through analysis. Students will evalu ate data quality, cleansing, statistical interpretation and data visualization. Develop measurement tools a n d metrics to address key business questions and evaluate implementation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG314 - Geom Dimension/Tolerance

Overview

Course Subject Code
MFG

Course Number
314

Course Title
Geom Dimension/Tolerance

Department
Manufacturing & Mechanical Eng

Course Description
The study and application of ANSI and ISO geometric dimensioning and tolerancing principles and practices relative to product design and manufacturing operations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG318 - Electricity in Manuf

Overview

Course Subject Code
MFG

Course Number
318

Course Title
Electricity in Manuf

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG318P - Electricity in Manuf

Overview

Course Subject Code
MFG

Course Number
318P

Course Title
Electricity in Manuf

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG331 - Industrial Controls

Overview

Course Subject Code
MFG

Course Number
331

Course Title
Industrial Controls

Department
Manufacturing & Mechanical Eng

Course Description
Fundamentals of control of manufacturing processes. Applications of relay logic, input and output devices, and programmable logic controllers (PLC). Design of complete control circuits, selection of components, and cost estimation. PLC programming for discrete event control and for analog applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG333 - Stat Methods Qual/Improv

Overview

Course Subject Code
MFG

Course Number
333

Course Title
Stat Methods Qual/Improv

Department
Manufacturing & Mechanical Eng

Course Description
Strategies for continuous manufacturing process improvement. Graphical and numerical methods for data analysis. Methods for manufacturing process control and acceptance criteria.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG335 - Industrial Control Systems

Overview

Course Subject Code
MFG

Course Number
335

Course Title
Industrial Control Systems

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
4

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MFG336P - Manufac Proposals I

Overview

Course Subject Code
MFG

Course Number
336P

Course Title
Manufac Proposals I

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG341 - Numerical Control Prog

Overview

Course Subject Code
MFG

Course Number
341

Course Title
Numerical Control Prog

Department
Manufacturing & Mechanical Eng

Course Description
Introduction to manual numerical control programming. Includes interpreting part drawings, process planning, machining setup and sequence. Program debugging and introduction to tool path simulation and computer-aided programming tools.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG342 - Computer Aided Machining

Overview

Course Subject Code
MFG

Course Number
342

Course Title
Computer Aided Machining

Department
Manufacturing & Mechanical Eng

Course Description
Development of CNC machine tool manufacturing programs using computer-aided process planning and advanced CAD/CAM software. Emphasis on analysis and planning required for successful CNC production, development of CAD drawings and solid models for CAM program development, toolpath simulation, and manufacturing engineering issues.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG343 - Manufacturing Tool Dsgn

Overview

Course Subject Code
MFG

Course Number
343

Course Title
Manufacturing Tool Dsgn

Department
Manufacturing & Mechanical Eng

Course Description
Fundamentals of jig and fixture design. Locating and clamping methods for manufacturing production. Design of sheet-metal stamping, piecing, and forming tools. Study of the effect of manufacturing machines and production methods on tooling design.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

MFG344 - Dsgn of Mfg Tooling

Overview

Course Subject Code
MFG

Course Number
344

Course Title
Dsgn of Mfg Tooling

Department
Manufacturing & Mechanical Eng

Course Description
Using material from prior courses students work in individual and team design projects. Design and analyze a variety of manufacturing fixtures, jigs, molds, and stamping dies.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG407 - Seminar

Overview

Course Subject Code
MFG

Course Number
407

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG410 - Work Measurement/ Evaluation

Overview

Course Subject Code
MFG

Course Number
410

Course Title
Work Measurement/Evaluation

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

MFG411 - Manuf Proposals II

Overview

Course Subject Code
MFG

Course Number
411

Course Title
Manuf Proposals II

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours Operator
TO

Number Of Repeats
3

Number Of Repeats
3

Pre-Requisites

No Requirements

Pre-Requisites

No Requirements

MFG413 - Senior Project

Overview

Course Subject Code
MFG

Course Number
413

Course Title
Senior Project

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

MFG413P - Senior Projects

Overview

Course Subject Code
MFG

Course Number
413P

Course Title
Senior Projects

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG422P - Senior Project

Overview

Course Subject Code
MFG

Course Number
422P

Course Title
Senior Project

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
SR GR Capstone Project COOP, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG428 - MFG Engr Certification

Overview

Course Subject Code
MFG

Course Number
428

Course Title
MFG Engr Certification

Department
Manufacturing & Mechanical Eng

Course Description
Students are required to take the Certified Manufacturing Engineer Exam or Certified Manufacturing Technician Exam offered by the Society of Manufacturing Engineers. Prerequisite: Graduating Senior.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
4

Pre-Requisites

No Requirements

MFG432 - Senior Project

Overview

Course Subject Code
MFG

Course Number
432

Course Title
Senior Project

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MFG443P - Adv Material Proc

Overview

Course Subject Code
MFG

Course Number
443P

Course Title
Adv Material Proc

Department
METR

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

MFG446 - Adv Mfg Proc & Material

Overview

Course Subject Code
MFG

Course Number
446

Course Title
Adv Mfg Proc & Material

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG446P - Adv MFG Process & Mat

Overview

Course Subject Code
MFG

Course Number
446P

Course Title
Adv MFG Process & Mat

Department
MAN

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

MFG447 - Lean Manufacturing

Overview

Course Subject Code
MFG

Course Number
447

Course Title
Lean Manufacturing

Department
Manufacturing & Mechanical Eng

Course Description
Introduction of principles, techniques, and skills of lean manufacturing. Process optimization and quality improvement for manufacturing. Plant layout, design and job scheduling. JIT skills, such as Kaizen, Kanban, value added analysis and one piece flow to reduce inventory and waste.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG453 - Automation & Robotics

Overview

Course Subject Code
MFG

Course Number
453

Course Title
Automation & Robotics

Department
Manufacturing & Mechanical Eng

Course Description
Study of the appropriate level of manufacturing automation based upon economics and productivity. Discussion of robotics and a study of automated manufacturing including automatic machine design and material handling. Senior standing in MET or MFG or instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG454 - Thermal Manufacturing Process

Overview

Course Subject Code
MFG

Course Number
454

Course Title
Thermal Manufacturing Process

Department
Manufacturing & Mechanical Eng

Course Description
Fundamentals of thermal energy analysis, including introduction to thermodynamics and heat transfer. Emphasis is on solving manufacturing related problems in thermal process control and analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG463 - Sr Project III

Overview

Course Subject Code
MFG

Course Number
463

Course Title
Sr Project III

Department
Manufacturing & Mechanical Eng

Course Description
The final term of a three-term project. Process refinement and production of the product agreed to during the proposal phase. Requires formal reporting and presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
9

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG507 - Seminar

Overview

Course Subject Code
MFG

Course Number
507

Course Title
Seminar

Department
Manufacturing & Mechanical Eng

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Seminar, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG563 - Inventory/Supply Train Mgt

Overview

Course Subject Code
MFG

Course Number
563

Course Title
Inventory/Supply Train Mgt

Department
Manufacturing & Mechanical Eng

Course Description
Introduction of concepts, principles, techniques, strategies and applications related to demand forecasting, production planning, performance measurements, quality control, inventory control and continuous improvement for manufacturing systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFG595 - Selected Grad Topics in Manf

Overview

Course Subject Code
MFG

Course Number
595

Course Title
Selected Grad Topics in Manf

Department
Manufacturing & Mechanical Eng

Course Description
Manufacturing related topics in engineering science and design. Manufacturing related topics in software and computer integration. Manufacturing related topics in business and management. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG596 - Selected Topics/Eng Sci&Design

Overview

Course Subject Code
MFG

Course Number
596

Course Title
Selected Topics/Eng Sci&Design

Department
Manufacturing & Mechanical Eng

Course Description
Manufacturing related topics in engineering science and design. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG597 - Selected Topics/Comp Integrat

Overview

Course Subject Code
MFG

Course Number
597

Course Title
Selected Topics/Comp Integrat

Department
Manufacturing & Mechanical Eng

Course Description
Manufacturing related topics in software and computer integration. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG598 - Selected Topics/Mat & Process

Overview

Course Subject Code
MFG

Course Number
598

Course Title
Selected Topics/Mat & Process

Department
Manufacturing & Mechanical Eng

Course Description
Manufacturing related topics in materials and processing technology. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFG599 - Selected Topics/Finance & Mngt

Overview

Course Subject Code
MFG

Course Number
599

Course Title
Selected Topics/Finance & Mngt

Department
Manufacturing & Mechanical Eng

Course Description
Manufacturing related topics in business and management. Course may be repeated for credit.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFT500 - Child & Adolescent Development

Overview

Course Subject Code
MFT

Course Number
500

Course Title
Child & Adolescent Development

Department
Humanities & Social Sciences

Course Description
Course explores the transaction between biological, psychosocial, cultural, and development from conception through adolescence including an understanding of the development of characteristics such as resilience.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT501 - Adult Development

Overview

Course Subject Code
MFT

Course Number
501

Course Title
Adult Development

Department
Humanities & Social Sciences

Course Description
Course provides a broad understanding of the nature and needs of individuals in adulthood. Developmental theory from early adulthood through aging and death is explored including aspects of physical, cognitive, emotional, social, and spiritual development.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT502 - Lifespan Development

Overview

Course Subject Code
MFT

Course Number
502

Course Title
Lifespan Development

Department
Humanities & Social Sciences

Course Description
Course addresses biological, neurological, psycho-social, cultural, and environmental factors affecting human development from conception through late adulthood.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

MFT507 - Seminar

Overview

Course Subject Code
MFT

Course Number
507

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
7

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
14

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
7

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
7

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
7

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MFT510 - Introduction to MFT

Overview

Course Subject Code
MFT

Course Number
510

Course Title
Introduction to MFT

Department
Humanities & Social Sciences

Course Description
Course presents an introduction to the foundations of family therapy, including the historical development of the field and the fundamental concepts associated with family therapy.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT511 - Fmly Therapy Theory & Prac I

Overview

Course Subject Code
MFT

Course Number
511

Course Title
Fmly Therapy Theory & Prac I

Department
Humanities & Social Sciences

Course Description
Course covers the foundational principles of family systems theory and practice and begins a study of the classic models of family therapy. Students will embrace cultural humility as they explore the influences of their own families of origin; as well as family therapy practice issues with marginalized populations and cultural groups, particularly those of rural Oregon.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

MFT512 - Fmly Therapy Theory & Prac II

Overview

Course Subject Code
MFT

Course Number
512

Course Title
Fmly Therapy Theory & Prac II

Department
Humanities & Social Sciences

Course Description
Course is a continuation of Family Therapy: Theroy and Practice I. A comprehensive survey of the models of family therapy continues in the course with an exploration of the role of language, meaning, and process in relationships.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT513 - Advanced Family Therapy

Overview

Course Subject Code
MFT

Course Number
513

Course Title
Advanced Family Therapy

Department
Humanities & Social Sciences

Course Description
This course prepares student for Clinical Practicum. It includes review of integration of family therapy theory and practice from first contact through assessment, diagnosis, consultation, treatment planning, interventions, referrals, evaluation and termination. Stages of therapist development and stages of development in clinical supervisory

relationships are addressed, with emphasis on demonstration of person and professional competencies expected of MFT's and MFT students.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT520 - Counseling: Theory & Skills

Overview

Course Subject Code
MFT

Course Number
520

Course Title
Counseling: Theory & Skills

Department
Humanities & Social Sciences

Course Description
Course introduces students to basic skills in attending behavior, clinical interviewing, crisis intervention, treatment planning, progress notes, clinical intervention, and collateral consultation and referral.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT521 - Child & Adolescent Therapy

Overview

Course Subject Code
MFT

Course Number
521

Course Title
Child & Adolescent Therapy

Department
Humanities & Social Sciences

Course Description
Course presents a variety of psychotherapeutic modalities, offering the student an opportunity to develop basic child and adolescent therapy skills, assessments, and treatment stratagies, including Play Therapy. The impact of development aspects, family dynamics, the social enviornment, family violence, and trauma is addressed.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT522 - Couples Therapy

Overview

Course Subject Code
MFT

Course Number
522

Course Title
Couples Therapy

Department
Humanities & Social Sciences

Course Description
Course examines the psychotherapeutic theories and processes for the assessment and treatment of a wide range of relational issues.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT523 - Group Therapy

Overview

Course Subject Code
MFT

Course Number
523

Course Title
Group Therapy

Department
Humanities & Social Sciences

Course Description
Course provides a broad understanding of group development, dynamics, and therapy. Major theoretical approaches and group leadership styles are discussed.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT524 - Play Therapy

Overview

Course Subject Code
MFT

Course Number
524

Course Title
Play Therapy

Department
Humanities & Social Sciences

Course Description
Examination of philosophy and rationale for play therapy with children and preadolescents. Foscus on the goals of play therapy, the role of the play therapist, the developmental use of play and other expressive/ creative arts and activities with children and preadolescents, application of methods and skill; and adapting use of play therapy with adolescents and families.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT525 - Trauma and Recovery

Overview

Course Subject Code
MFT

Course Number
525

Course Title
Trauma and Recovery

Department
Humanities & Social Sciences

Course Description
Overview of the sociopolitical context of trauma and its impact on diverse populations of individuals, famalies, and communities. The course examines evidence-based approaches of addressing trauma on multiple system levels through applicaitons to case conceptualization and treatment planning with several populations of survivors including survivors of mass disasters, childhood abuse and domestic violence as well as veterans, refugees, and torture survivors.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT530 - Adult Psychopathology & Dx

Overview

Course Subject Code
MFT

Course Number
530

Course Title
Adult Psychopathology & Dx

Department
Humanities & Social Sciences

Course Description
Study of assessment, diagnosis, prognosis, andtreatment of personality and behavioral disorders inchildhood and adolescence, including assessmentand multi-axial diagnosis using the DSM.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Seminar, Independent Study, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT531 - Child & Adolescent Psycho & Dx

Overview

Course Subject Code
MFT

Course Number
531

Course Title
Child & Adolescent Psycho & Dx

Department
Humanities & Social Sciences

Course Description
Study of assessment, diagnosis, prognosis, andtreatment of personality and behavioral disorders inadulthood, including assessment and multi-axialdiagnosis using the DSM.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT532 - Psychopathology & the Family

Overview

Course Subject Code
MFT

Course Number
532

Course Title
Psychopathology & the Family

Department
Humanities & Social Sciences

Course Description
Course focuses on the etiology of family dysfunction, specificly from a dual function of individual and systems psychopathology. An exploration of the influence of the family on the development, maintenance, and prevention of behavior, substance abuse, and co-occuring dissorders is covered including family structure, environmental factors, socioeconomic stressors, educational level, parenting, cultural dynamics, and family life cycle issues. A review of the seminal and current research findings on the role of the family in the development and maintenace of behavior disorders and the best practices for treating them is provided.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT533 - Violence & Abuse in Int. Rel.

Overview

Course Subject Code
MFT

Course Number
533

Course Title
Violence & Abuse in Int. Rel.

Department
Humanities & Social Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Seminar, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT534 - Psychological Assessment

Overview

Course Subject Code
MFT

Course Number
534

Course Title
Psychological Assessment

Department
Humanities & Social Sciences

Course Description
This course provides students with a broad understanding of the clinical uses of psychological tests, including an introduction to the major types of instruments and understanding test results. An overview of the variety of assessment and diagnostic tools used to assess behavioral, psychological and relationship problems.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Discussion, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT540 - Research Methods

Overview

Course Subject Code
MFT

Course Number
540

Course Title
Research Methods

Department
Humanities & Social Sciences

Course Description
Course provides a survey of key concepts in social science research including sampling, measurement, research ethics, and design. Additional topics include the evidence base for clinical research, the evaluation of interventions, and pseudoscientific concerns in clinical research. Emphasis is placed on the review, evaluation, and application of professional literature to clinical practice in marriage and family therapy.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT550 - Professional Studies: Ethics

Overview

Course Subject Code
MFT

Course Number
550

Course Title
Professional Studies: Ethics

Department
Humanities & Social Sciences

Course Description
Course introduces students to the legal, ethical, and moral issues related to the practice of marriage and family therapy in the states of Oregon and California. Professional ethics codes and moral dilemmas are studied.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT560 - Dev. Cultural Competencies

Overview

Course Subject Code
MFT

Course Number
560

Course Title
Dev. Cultural Competencies

Department
Humanities & Social Sciences

Course Description
Increases students' awareness of multiple cultural values, assumptions, and family dynamics, with particular attention to power and control as experienced by members of majority and minority groups. Multicultural competence as a requirement of ethical practice of MFT is emphasized.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

MFT561 - Sexuality and Therapy

Overview

Course Subject Code
MFT

Course Number
561

Course Title
Sexuality and Therapy

Department
Humanities & Social Sciences

Course Description
Exploration of contemporary professional understandings of sexuality including the overview of models of sex therapy, treatment strategies utilized in treating sexual dysfunctions, and relational and familial dynamics influencing sexual development and sexual experiences.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'B' in Course MFT522
Type
Prerequisite

Earn a minimum grade (GR) of B in the following:
- MFT522 - Couples Therapy

Additional Comments:

A minimum grade of 'B' in Course MFT593
Type
Prerequisite

Earn a minimum grade (GR) of B in the following:
- MFT593 - Theories of Change in MFT

Additional Comments:

MFT562 - Rural Considerations in MH

Overview

Course Subject Code
MFT

Course Number
562

Course Title
Rural Considerations in MH

Department
Humanities & Social Sciences

Course Description
A course designed to understand the unique obstacles to treatment and resources available to individuals and families engaged in the treatment and recovery process in the context of rural communities. Telehealth best practices are highlighted. Special attention is given to treatment and prevention considerations specific to rural Southern Oregon.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT563 - Psychopharmacology

Overview

Course Subject Code
MFT

Course Number
563

Course Title
Psychopharmacology

Department
Humanities & Social Sciences

Course Description
Course introduces the common physical and medical issues that relate to the practice of marriage and family therapy. The biological and neurological bases of human behavior and use of psychtropic medications as an adjunctive therapy to psychotherapy is covered. Current information on the classes of medications and their use.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT564 - Sub. Abuse & Co-Occurring Dis.

Overview

Course Subject Code
MFT

Course Number
564

Course Title
Sub. Abuse & Co-Occurring Dis.

Department
Humanities & Social Sciences

Course Description
Course provides an introduction to substance abuse and co-occurring disorders including a careful examination of the diagnostic criteria in the current edition of the DSM. Assessment procedures and treatment issues are discussed with emphasis given to evidence-based treatment approaches.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Seminar, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT566 - MedFT: Illness, Fam., Prof

Overview

Course Subject Code
MFT

Course Number
566

Course Title
MedFT: Illness, Fam., Prof

Department
Humanities & Social Sciences

Course Description
Focus on knowledge and skills required to work in the rapidly developing multidisciplinary field of medical family therapy. Includes emphasis on addressing rural mental health care needs with integrated healthcare teams that address biomedical and psychosocial needs of the whole person and family systems.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT567 - Intro to SUD's & Addiction

Overview

Course Subject Code
MFT

Course Number
567

Course Title
Intro to SUD's & Addiction

Department
Humanities & Social Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT568 - MedFT in Action: Integ & Colla

Overview

Course Subject Code
MFT

Course Number
568

Course Title
MedFT in Action: Integ & Colla

Department
Humanities & Social Sciences

Course Description
Continuation of MFT 566, emphasizing advanced study of the knowledge and skills required to work in the rapidly developing multidisciplinary field of medical family therapy. Includes emphasis on addressing rural mental health care needs with integrated healthcare teams that address biomedical and psycho-social needs of the whole person and family systems.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT569 - Fam. Substance Abuse & Add.

Overview

Course Subject Code
MFT

Course Number
569

Course Title
Fam. Substance Abuse & Add.

Department
Humanities & Social Sciences

Course Description
A course about the etiology, conceptualization, and treatment of substance use and co-occurring disorders within the context of family systems. Special consideration is given to the impact of substance

Academic Level (Course Level)
Graduate

College/School
College of HAS

Systemic treatment approaches are discussed with an emphasis on the importance of including family systems and positive supports in the recovery healing process.

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

MFT570 - Clinical Practicum I

Overview

Course Subject Code
MFT

Course Number
570

Course Title
Clinical Practicum I

Department
Humanities & Social Sciences

Course Description
The first of three, a one-term, supervised clinical experiences in an approved clinical setting providing direct therapy services. Students also attend a weekly seminar led by a faculty member where they will

Academic Level (Course Level)
Graduate

College/School
College of HAS

present and evaluate videotaped counseling sessions and consult with faculty and clinical peers.

Schedule Type
Lecture, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Pre-Requisites

No Requirements

MFT580 - Independent Study in MFT

Overview

Course Subject Code
MFT

Course Number
580

Course Title
Independent Study in MFT

Department
Humanities & Social Sciences

Course Description
Intensive self-study of a Marriage and Family Therapy related topic, guided by a professor. May be repeated. Requires approval of MFT department director.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

MFT581 - Pharmacology of Substance Use

Overview

Course Subject Code
MFT

Course Number
581

Course Title
Pharmacology of Substance Use

Department
Humanities & Social Sciences

Course Description
An introduction to the psychopharmacology of alcohol and other drugs. An emphasis is given to the behavioral, psychological, physiological, and social effects of alcohol and other drugs on the brain, the body, and relationships. Symptoms of withdrawal from psychoactive substances are highlighted. Collaboration between mental health practitioners, addictions counselors, and medication providers is addressed.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

MFT582 - Contemp. Issues in MFT & Add.

Overview

Course Subject Code
MFT

Course Number
582

Course Title
Contemp. Issues in MFT & Add.

Department
Humanities & Social Sciences

Course Description
A research-focused course examining contemporary treatment and prevention at the intersection of Marriage and Family Therapy and substance abuse and addiction treatment. Topics include contemporary evidenced-based relationally focused substance abuse and therapy approaches, sociopolitical influences on family health and addictions treatment, current drug trends in America, gambling and process addictions, and health policy and prevention strategies. Students will develop a final research project based on a contemporary topic of interest.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

MFT590 - Clinical Capstone I

Overview

Course Subject Code
MFT

Course Number
590

Course Title
Clinical Capstone I

Department
Humanities & Social Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Seminar, Discussion

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
2

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
2

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
2

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Pre-Requisites

No Requirements

MFT592 - Self of the Therapist and MFT

Overview

Course Subject Code
MFT

Course Number
592

Course Title
Self of the Therapist and MFT

Department
Humanities & Social Sciences

Course Description
A course designed to address personal and professional development related to the ability to actively and purposefully choose how to use self therapeutically in a therapist-client relationship. Focus is on identifying one's own background, culture, beliefs and values, strengths and woundedness, and addressing how these factors influence therapeutic relationships. An articulation of therapist world views is highlighted.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

MFT593 - Theories of Change in MFT

Overview

Course Subject Code
MFT

Course Number
593

Course Title
Theories of Change in MFT

Department
Humanities & Social Sciences

Course Description
A course designed to facilitate the development and articulation of an integrated theory of change. Focus is on connecting therapist worldviews and identities to overarching systemic MFT theories and interventions. The culmination of this course is the development of an integrated theory of change grounded in systemic theory and interventions. Students create a written and oral presentation of their integrated theories.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

MFT594 - Capstone

Overview

Course Subject Code
MFT

Course Number
594

Course Title
Capstone

Department
Humanities & Social Sciences

Course Description
A culmination of student learning and development in an integrated portfolio project. Students will compile key assignments from previous courses and articulate their growth and development in each of the identified student learning outcomes for the program. Students will defend their portfolio project to MFT faculty prior to graduation.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

MFT599 - Supervised Clinical Practicum

Overview

Course Subject Code
MFT

Course Number
599

Course Title
Supervised Clinical Practicum

Department
Humanities & Social Sciences

Course Description
Supervised experience in MFT. Designed to meet practicum experience standards and supervisory requirements of the Oregon Board of Licensed Professional Counselors and Therapists (OBLPCT) and the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). Students receive video and case consultation supervision while developing and evolving practical skills in MFT through a weekly seminar course. May be repeated for credit as students continue accruing hours. Students must enroll in this course at least four terms.Prerequsite: Approval of MFT Clinical Director.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Discussion, Seminar, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Max
8

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT107 - Seminar

Overview

Course Subject Code
MGT

Course Number
107

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT207 - Seminar

Overview

Course Subject Code
MGT

Course Number
207

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT307 - Seminar

Overview

Course Subject Code
MGT

Course Number
307

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT321 - Operations Management

Overview

Course Subject Code
MGT

Course Number
321

Course Title
Operations Management

Department
Management

Course Description
Functions of the operations division within the organizational structure. Manufacturing and service organizations reviewed. Capacity planning with forecasting and material requirements planning. Introduction to Just-In-Time concepts.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT322 - Supply Chain Management

Overview

Course Subject Code
MGT

Course Number
322

Course Title
Supply Chain Management

Department
Management

Course Description
Supply chain management for service and manufacturing companies. Covers flow of goods and services through relationships with business customers, suppliers and partners. Students learn how to manage strategic, operational and tactical planning using best known practices and efficient use of information systems. Evaluate and design effective supply chains.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT323 - Logistics Management

Overview

Course Subject Code
MGT

Course Number
323

Course Title
Logistics Management

Department
Management

Course Description
Approaches to warehousing practices and distribution of goods and services across the supply chain. Logistics justification and decisions. Procurement, packaging, handling, transport and ownership arrangements. Relationship management, sustainability and risk assessment

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT335 - Project Management

Overview

Course Subject Code
MGT

Course Number
335

Course Title
Project Management

Department
Management

Course Description
Includes project planning, risk assessment, scheduling, budgeting, and controls using tools such as Microsoft Project & Critical Path Method. This class will prepare students for a capstone experience, with project identification, proposal, charter & project plan.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT345 - Engineering Economy

Overview

Course Subject Code
MGT

Course Number
345

Course Title
Engineering Economy

Department
Management

Course Description
Capital expenditure, economic life and replacement analysis based on net present value, periodic costs, internal and incremental rates of return. Coverage of compound interest, value flows, economic equivalencies, depreciation, taxes and inflation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT407 - Seminar

Overview

Course Subject Code
MGT

Course Number
407

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT421 - Agile Quality Management

Overview

Course Subject Code
MGT

Course Number
421

Course Title
Agile Quality Management

Department
Management

Course Description
Agile principles and practices applied to quality management in both manufacturing and
service industries are introduced. Emphasis is on adaptive planning, early delivery, and continuous improvement. Students will use Agile methodologies to solve quality problems and will apply basic statistical techniques to ensure quality performance.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course MATH361
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:

- MATH361 - Statistical Methods I

Additional Comments:

MGT422 - Materials Management

Overview

Course Subject Code
MGT

Course Number
422

Course Title
Materials Management

Department
Management

Course Description
Approaches to materials management common to production and service industries. Demand forecasting, inventory management, scheduling, requirements planning and capacity planning using qualitative and quantitative methods. Application of computing systems in materials management processes.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT423 - Enterprise Resource Planning

Overview

Course Subject Code
MGT

Course Number
423

Course Title
Enterprise Resource Planning

Department
Management

Course Description
Fundamentals of enterprise resource planning (ERP) systems concepts, and the importance of integrated information systems in an organization. The focus of this course is on managing procurement, production, customer relationships, supply chain, and sales business processes using ERP software.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT461 - Lean/Six Sigma Management I

Overview

Course Subject Code
MGT

Course Number
461

Course Title
Lean/Six Sigma Management I

Department
Management

Course Description
Lean thinking as applied to production and service operations. Kaizen, kaikaku, pull production and systems, value stream mapping and analysis. Standardized work charts and combination tables to streamline work content and achieve flow. Identifying sources of muda and its elimination.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT462 - Lean/Six Sigma Management II

Overview

Course Subject Code
MGT

Course Number
462

Course Title
Lean/Six Sigma Management II

Department
Management

Course Description
Overview course of Six Sigma management roles, responsibilities and terminology. Students will understand the tools and the phases of the DMAIC model and explore business cases to understand how Six Sigma techniques are applied to business.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT463 - Lean/Six Sigma Management III

Overview

Course Subject Code
MGT

Course Number
463

Course Title
Lean/Six Sigma Management III

Department
Management

Course Description
Deployment and management of Lean Six Sigma within the enterprise. Planning and assessment of deployment sustainability, infrastructure, success factors and metrics that describe the value proposition associated with institutionalizing large strategic initiatives such as Lean Six Sigma.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MGT507 - Seminar

Overview

Course Subject Code
MGT

Course Number
507

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, *Computer-Accessed Course, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MGT561 - Lean Six Sigma Management I

Overview

Course Subject Code
MGT

Course Number
561

Course Title
Lean Six Sigma Management I

Department
Management

Course Description
In this course students deep dive into Lean thinking, covering concepts like Kaizen, Kanban, 5S, and value stream mapping to streamline operations and eliminate waste.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course MATH361
Type
Prerequisite

Complete ALL of the following Courses:

- MATH361 - Statistical Methods I

Additional Comments:

MGT562 - Lean Six Sigma Management II

Overview

Course Subject Code
MGT

Course Number
562

Course Title
Lean Six Sigma Management II

Department
Management

Course Description
In this course students learn about the application of Lean and Six Sigma statistical methodologies to real-world business problems, emphasizing continuous improvement and operational excellence.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- MGT561 - Lean Six Sigma Management I

OR

Complete ALL of the following Courses:
- MGT461 - Lean/Six Sigma Management I

Additional Comments:

MGT563 - Lean Six Sigma Management III

Overview

Course Subject Code
MGT

Course Number
563

Course Title
Lean Six Sigma Management III

Department
Management

Course Description
In this course students learn about the advanced Lean and Six Sigma methodologies, systems thinking, and practical application through simulated projects. Emphasis on creating and maintaining a Lean Six Sigma culture.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- MGT462 - Lean/Six Sigma Management II

OR

Complete ALL of the following Courses:
- MGT562 - Lean Six Sigma Management II

Additional Comments:

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- MGT461 - Lean/Six Sigma Management I

OR

Complete ALL of the following Courses:
- MGT561 - Lean Six Sigma Management I

Additional Comments:

MIS102 - Spreadsheet Software Lab

Overview

Course Subject Code
MIS

Course Number
102

Course Title
Spreadsheet Software Lab

Department
Management

Course Description
Spreadsheet lab using Microsoft Excel software. Includes creating worksheets, charts, formulas, functions, what-if analysis, sorting, multiple worksheets, workbooks, templates, pivot tables and importing of data.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS107 - Seminar

Overview

Course Subject Code
MIS

Course Number
107

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Independent Study, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
2

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
1

Lab Hours Max
12

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MIS113 - Intro to Database Systems

Overview

Course Subject Code
MIS

Course Number
113

Course Title
Intro to Database Systems

Department
Management

Course Description
Introduces concepts of desktop computer-based database systems. Topics include database management issues, database design, creating and maintaining a database, normalization, table structures, and creating user queries, reports, and forms. Basic database security is discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS118 - Intro to Programming in C#

Overview

Course Subject Code
MIS

Course Number
118

Course Title
Intro to Programming in C#

Department
Management

Course Description
An introduction to basic computer programming concepts in the C# programming language. Topics include algorithms, simple data types, conditional and iterative structures, functions and procedures, and code documentation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS145 - Intro to PC Hardware/Software

Overview

Course Subject Code
MIS

Course Number
145

Course Title
Intro to PC Hardware/Software

Department
Management

Course Description
An introduction to PC hardware and software that prepares students as an entry-level PC technician. The course covers topics including: PC system components, peripheral devices, data storage, networking, printing, mobile devices, operating system installation and management, file management, basic data security, and troubleshooting process.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS206 - Intro to Mgmt Info Sys

Overview

Course Subject Code
MIS

Course Number
206

Course Title
Intro to Mgmt Info Sys

Department
Management

Course Description
Introduction to key components in information systems. Identification of major hardware components and primary categories of software applications. Data resource management concepts; elements of how information systems work to support problem solving and business opportunities. Ethics of information systems usage.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS207 - Seminar

Overview

Course Subject Code
MIS

Course Number
207

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS218 - Intermediate Programming in C#

Overview

Course Subject Code
MIS

Course Number
218

Course Title
Intermediate Programming in C#

Department
Management

Course Description
Intermediate level object-oriented programming in the C# language with an emphasis on structured design, user interface design and error processing. Introduction to advanced language elements and program structures to integrate data stored in database systems into simple business applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS225 - Digital Marketing

Overview

Course Subject Code
MIS

Course Number
225

Course Title
Digital Marketing

Department
Management

Course Description
The role of the Internet and related technologies in modern business and e-commerce. Hands on course for creating dynamic web pages using cloud-based development platforms. Emphasizes both paid and owned digital marketing, search engine optimization, website analytics, and design principles to create effective marketing strategies.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS240 - Linux Fundamentals

Overview

Course Subject Code
MIS

Course Number
240

Course Title
Linux Fundamentals

Department
Management

Course Description
Introduces the fundamental concepts of Linux operating systems. Topics include components and functions of an operating system, installing and configuring Linux operating systems, file systems, permissions, process and thread management, commands, utilities, text editing, shell programming and text processing utilities.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS251 - Networking Fundamentals

Overview

Course Subject Code
MIS

Course Number
251

Course Title
Networking Fundamentals

Department
Management

Course Description
Introduction to voice and data networking concepts and technologies, including network types, common network standards, network interface cards, wired and wireless network components, IP addressing and sunbathing, network protocols, basic network security, and troubleshooting basic network issues.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS255 - Health Informatics Cpts & Prct

Overview

Course Subject Code
MIS

Course Number
255

Course Title
Health Informatics Cpts & Prct

Department
Management

Course Description
The discipline of health informatics is introduced, including history, knowledge of health informatics, data management, vocabularies, standards and tools as applied in the support of health care delivery. The course provides foundation knowledge and understanding of the impact of information technology in the health care industry and vice versa. Particular attention is paid to the design, usage and acceptance of information technology applications. This course introduces students to the concepts and practices of health informatics.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS273 - Systems Administration I

Overview

Course Subject Code
MIS

Course Number
273

Course Title
Systems Administration I

Department
Management

Course Description
Introduces the fundamental skills required to install and manage a Windows Server. Topics covered include installing and configuring Active Directory, domain controllers, DNS, users and group definition, print queues, network roles and services and application servers.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of C in the following:

- MIS145 - Intro to PC Hardware/Software

OR

Earn a minimum grade (UG) of C in the following:
- ITM325 - Bus Telecommunications (Inactive)

OR

Earn a minimum grade (UG) of C in the following:
- MIS256 - Hdwr/Sftwr Integration (Inactive)

Additional Comments:

MIS275 - Intro to Relational Databases

Overview

Course Subject Code
MIS

Course Number
275

Course Title
Intro to Relational Databases

Department
Management

Course Description
The relational model, DBMS functions, administration, design methodology, modeling and normalization. Hands-on design, development and use of an enterprise database system using SQL Server. SQL fundamentals will be introduced, covering select statements, data manipulation, sub-queries, multi-table queries, functions and data types.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS285 - Python Programming

Overview

Course Subject Code
MIS

Course Number
285

Course Title
Python Programming

Department
Management

Course Description
Introduction to the fundamentals of programming with the Python programming language. Topics covered include basic data types, control structures, regular expressions, input/output, and textual analysis. Focus on creating simple programs and scripts.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
6

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
3

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS307 - Seminar

Overview

Course Subject Code
MIS

Course Number
307

Course Title
Seminar

Department
Management

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS311 - Intro to Systems Analysis

Overview

Course Subject Code
MIS

Course Number
311

Course Title
Intro to Systems Analysis

Department
Management

Course Description
Introduction to state-of-the-art business information systems. Acquiring, processing and distributing information in a technological environment. The MIS organization, its place in business, key trends and implications. Introduction to computer hardware. Introduction to System Development Life Cycle.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS312 - Systems Analysis I

Overview

Course Subject Code
MIS

Course Number
312

Course Title
Systems Analysis I

Department
Management

Course Description
Planning and Analysis phases of Systems Development Life Cycle. Focuses on software development life cycles; entity relationships, data flow diagrams; prototyping and other forms of data or system modeling. Designing, selecting and installing new systems for end users. Includes cost/benefit and value added evaluations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

MIS322 - Systems Analysis & Design II

Overview

Course Subject Code
MIS

Course Number
322

Course Title
Systems Analysis & Design II

Department
Management

Course Description
Design, implementation and maintenance phases of Systems Development Life Cycle. Designing, selecting and installing new systems for end users. Includes cost/benefit and value-added evaluations. Define and perform data modeling, process modeling, network modeling and their importance.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS334 - Business Analytics

Overview

Course Subject Code
MIS

Course Number
334

Course Title
Business Analytics

Department
Management

Course Description
Overview of business analytics, the value of data in decision making through analysis. Students will evaluate data quality, cleansing, statistical interpretation and data visualization. Develop measurement tools and metrics to address key business questions and evaluate implementation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

MIS341 - Relational Database Design I

Overview

Course Subject Code
MIS

Course Number
341

Course Title
Relational Database Design I

Department
Management

Course Description
A comprehensive study of SQL and TSQL using the SQL Server relational database management system. Hands-on training will include the use of TSQL, SQL Server Management Studio, database creation, CLR, data queries, view definitions and use operators and functions, triggers, calculations, indexing, cursors and data manipulation.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS344 - Business Intelligence

Overview

Course Subject Code
MIS

Course Number
344

Course Title
Business Intelligence

Department
Management

Course Description
Develop analytic solutions to gain functional understanding of Business Intelligence to solve business problems. Covers the development of Crystal Reports and Dash-boarding tools to develop Reporting and interface solutions for business.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS345 - Health Care Info Systms Mgment

Overview

Course Subject Code
MIS

Course Number
345

Course Title
Health Care Info Systms Mgment

Department
Management

Course Description
Information Systems within healthcare organizations are examined. Business, clinical, and healthcare delivery processes are identified as they relate to data acquisition and information systems. Key issues confronting design, organization and management of healthcare systems are identified, examined, and solutions are explored and developed.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS351 - Networking II

Overview

Course Subject Code
MIS

Course Number
351

Course Title
Networking II

Department
Management

Course Description
Covers intermediate-level network design and implementation topics utilizing Cisco networking technologies. Students will learn the fundamentals of 1Pv4 and 1Pv6 routing and Ethernet switching. Students will also learn to configure essential network services such as NAT, and DHCP, as well as basic network security services.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS352 - Routing and Switching II

Overview

Course Subject Code
MIS

Course Number
352

Course Title
Routing and Switching II

Department
Management

Course Description
Covers intermediate-level network design and implementation topics utilizing Cisco networking technologies. Students will learn about dynamic IPv4 and IPv6 routing protocols, including: OSPF, EIGRP and BGP. More advanced network design topics are also covered including redundancy, scalability, performance and manageability.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS357 - Info & Comm Systs in Hlth Care

Overview

Course Subject Code
MIS

Course Number
357

Course Title
Info & Comm Systs in Hlth Care

Department
Management

Course Description
Addresses the role of computer-based information and communications systems in patient care and health care administration, including hands-on experience with the acquisition, storage and use of information in the electronic medical record systems such as PACS, lab and pharmacy systems and computerized provider order entry (CPOE).

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS365 - Cloud Computing

Overview

Course Subject Code
MIS

Course Number
365

Course Title
Cloud Computing

Department
Management

Course Description
Introduces the technologies and services that enable cloud computing, different types of cloud computing services (SaaS, PaaS, DaaS, and IaaS), deployment models (Public, Private, and Hybrid) and the security and legal issues associated with cloud computing.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS375 - Decision Support Systems

Overview

Course Subject Code
MIS

Course Number
375

Course Title
Decision Support Systems

Department
Management

Course Description
Use of personal computer application programs for analysis and reporting, problem solving, and decision assistance. Junior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS390 - Co-op Field Experience

Overview

Course Subject Code
MIS

Course Number
390

Course Title
Co-op Field Experience

Department
Management

Course Description
An approved work program related to the student's field of specialization for a continuous three-month or six-month period. The employer type, level, and difficulty of the particular job must be approved by the student's advisor prior to the employment period. A written comprehensive report of activities must be submitted during the following term of residence. Prerequisites: All MIS 100 and 200 level courses.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Experiential, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
21

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
60

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
21

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
60

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS407 - Seminar

Overview

Course Subject Code
MIS

Course Number
407

Course Title
Seminar

Department
Management

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, No Grade Transfer Courses, Pass/No pass, Satisfactory/Unsatisfactory

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
13

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
13

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
13

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
13

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS441 - Big Data

Overview

Course Subject Code
MIS

Course Number
441

Course Title
Big Data

Department
Management

Course Description
Advanced application of data best practices. Evaluating the big data ecosystem and when big data systems are best utilized in comparison to relational data models. Develop an understanding of big data concepts, model design and implementation and sustainability through a big data platform. Emphasis will be on utilizing the big data platform to provide information to solve business problems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MIS442 - Adv Web App Programming

Overview

Course Subject Code
MIS

Course Number
442

Course Title
Adv Web App Programming

Department
Management

Course Description
Construct graphical end-user interfaces for scalable, high performance Internet applications. Building, testing, debugging and deploying interactive Internet applications that use an enterprise level Database Management System. Develops experience with the Systems Development Life Cycle (SDLC) for web/database integration for application development. Develop understand and application of Software as a Service (SaaS). For graduate credit, students will participate in a field placement project working with companies such as the BLM to create a working application demonstrating mastery of the subject material.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS446 - Data Mining

Overview

Course Subject Code
MIS

Course Number
446

Course Title
Data Mining

Department
Management

Course Description
Defining the project cycle of data mining through data collection, analysis and assessment. Classification, Clustering, Association, Regression, Forecasting, Sequence Analysis and Deviation Analysis are applied to the project life cycle of data mining applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS480 - Capstone Experience

Overview

Course Subject Code
MIS

Course Number
480

Course Title
Capstone Experience

Department
Management

Course Description
Synthesize program concepts in applied, research, internship or other project capstone experience. Demonstrate core business concepts, stakeholder collaboration, decision-support tools, research skills, delivering professional written report and presentation. Repeatable but cannot be taken simultaneously. One term only per intership site.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS490 - Co-op Field Experience

Overview

Course Subject Code
MIS

Course Number
490

Course Title
Co-op Field Experience

Department
Management

Course Description
An approved work program related to the student's field of specialization for a continuous three-month or six-month period. the employer type, level, and difficulty of the particular job must be approved by the student's advisor prior to the employment period. a written comprehensive report of activities must be submitted during the following term of residence.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Experiential, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
21

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
60

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
21

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
60

Other Hours Operator
TO

Number Of Repeats
99

MIS495 - Senior Project Selection

Overview

Course Subject Code
MIS

Course Number
495

Course Title
Senior Project Selection

Department
Management

Course Description
Selection of the senior project capstone project concept that meets industry demands and stakeholders requirement.
Prerequisites: MIS 312 and MGT 335 with a C or better or Instuctors Consent.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR
Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

MIS496 - Senior Project Management

Overview

Course Subject Code
MIS

Course Number
496

Course Title
Senior Project Management

Department
Management

Course Description
Focuses on project management. Includes best known industry practices, as well as planning, organizing and managing resources to bring about successful completion of specific project goals and objectives. Produces formal proposal for Senior Project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR
Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS497 - Senior Project II

Overview

Course Subject Code
MIS

Course Number
497

Course Title
Senior Project II

Department
Management

Course Description
Senior project students will plan, develop, and carry through to completion a management information systems project for a client they select. Formal proposal, progress reports and project demonstration/presentation. The instructor serves as the student's consultant.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP, SR GR Cap Project COOP Lab, *Computer-Accessed Course, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIS498 - Senior Project III

Overview

Course Subject Code
MIS

Course Number
498

Course Title
Senior Project III

Department
Management

Course Description
Senior project students plan, develop, and complete a project for a client or an independent research project. Periodic progress reports and presentations required. Instructor functions as a consultant. Deliver final project.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, SR GR Capstone Project COOP, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIT103 - Intro to Medical Imaging

Overview

Course Subject Code
MIT

Course Number
103

Course Title
Intro to Medical Imaging

Department
Medical Imaging Technology

Course Description
Orientation to the art and science of medical imaging. History and development of radiologic science, diagnostic medical sonography, vascular technology, nuclear medicine technology, medical ethics, health care industry, related professional organizations and regulatory agencies.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT107 - Seminar

Overview

Course Subject Code
MIT

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIT207 - Seminar

Overview

Course Subject Code
MIT

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIT209 - PACS I: Intro to PACS

Overview

Course Subject Code
MIT

Course Number
209

Course Title
PACS I: Intro to PACS

Department
Medical Imaging Technology

Course Description
An introduction to Picture Archiving Communications System (PACS). PACS Workflow within the department and interdepartmentally, PARCA and CIIP certification, procurement, and PACS system administration. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT219 - PACS II: Comm and Admin

Overview

Course Subject Code
MIT

Course Number
219

Course Title
PACS II: Comm and Admin

Department
Medical Imaging Technology

Course Description
Study of policies and procedures for PACS. Observation of the healthcare organization and PACS role within the organization. Overview of PACS components, image acquisition viewing of images, and image archiving. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT225 - Patient Care in Sonography

Overview

Course Subject Code
MIT

Course Number
225

Course Title
Patient Care in Sonography

Department
Medical Imaging Technology

Course Description
Basic concepts of patient care, infection control procedures, transport of critically ill patients, and recognition of emergency situations. Sonographer's responsibility to the patient, the patient's family,and the sonography profession.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
2

Lab Hours

Lab Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT229 - PACS III: Tech Req & Imag Qual

Overview

Course Subject Code
MIT

Course Number
229

Course Title
PACS III: Tech Req & Imag Qual

Department
Medical Imaging Technology

Course Description
Overview of computer basics, technical requirements, and Operating System basics. An introduction to HIPAA and PACS image quality. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT231 - Sonographic Princ & Instru I

Overview

Course Subject Code
MIT

Course Number
231

Course Title
Sonographic Princ & Instru I

Department
Medical Imaging Technology

Course Description
Properties of sound waves, propagation and interaction of ultrasound in tissue, basic ultrasound instrumentation, static, and real-time ultrasound imaging principles and artifacts are covered. Laboratory includes demonstration of wave characteristics and introduction to basic instrumentation of real-time ultrasound imaging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT232 - Sonographic Princ & Instru II

Overview

Course Subject Code
MIT

Course Number
232

Course Title
Sonographic Princ & Instru II

Department
Medical Imaging Technology

Course Description
Advanced physical principles. Hemodynamics, Doppler physics, color imaging, and artifacts associated with them are covered. Digital signal and image processing and bio effects are also discussed. Laboratory develops instrumentation skills.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT234 - Trauma/Sur Radiography

Overview

Course Subject Code
MIT

Course Number
234

Course Title
Trauma/Sur Radiography

Department
Medical Imaging Technology

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MIT239 - PACS IV: Implem & Sys Mgmt

Overview

Course Subject Code
MIT

Course Number
239

Course Title
PACS IV: Implem & Sys Mgmt

Department
Medical Imaging Technology

Course Description
Overview of implementing PACS. Starting from procurement to the Return of Investment (ROI). This will include the proposal, approval process, integration, a post install. Class will include the study of DICOM and HL7. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT249 - PACS V: DICOM

Overview

Course Subject Code
MIT

Course Number
249

Course Title
PACS V: DICOM

Department
Medical Imaging Technology

Course Description
Study of the DICOM standard and how it allows for modalities to communicate inside and outside of a facility.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

MIT259 - PACS VI: PACS Security

Overview

Course Subject Code
MIT

Course Number
259

Course Title
PACS VI: PACS Security

Department
Medical Imaging Technology

Course Description
Overview of Information Technology, IHE, security, structured reporting and networking fundamentals. Prerequisites: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT307 - Seminar

Overview

Course Subject Code
MIT

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
Terms and hours to be arranged.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
24

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
12

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIT308 - Cadaver Imaging Problems

Overview

Course Subject Code
MIT

Course Number
308

Course Title
Cadaver Imaging Problems

Department
Medical Imaging Technology

Course Description
Cadaver imaging is a group centered project that allows imaging students to advance their technical, professional, and leadership skills. The process of imaging a human cadaver presents unique opportunities to identify and solve an infinite variety of complex problems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

MIT310 - Cadaver Imaging Problems

Overview

Course Subject Code
MIT

Course Number
310

Course Title
Cadaver Imaging Problems

Department
Medical Imaging Technology

Course Description
Cadaver imaging is a group centered project that allows imaging students to advance their technical, professional, and leadership skills. The process of imaging a human cadaver presents unique opportunities to identify and solve an infinite variety of complex problems. Offered to all junior level medical imaging students.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
50

Pre-Requisites

No Requirements

MIT341 - Magnetic Resonance Imaging

Overview

Course Subject Code
MIT

Course Number
341

Course Title
Magnetic Resonance Imaging

Department
Medical Imaging Technology

Course Description
Physics and principles used in the production used in the production of magnetic resonance images and spectroscopy, including: safety issues, static and gradient magnetic fields, coils, resonance, frequencies, relaxation, and computer applications. Basic pulse sequences are examined in detail.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Lecture/Lab, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT342 - Mag. Resonance Imaging II

Overview

Course Subject Code
MIT

Course Number
342

Course Title
Mag. Resonance Imaging II

Department
Medical Imaging Technology

Course Description
Advanced principles used in the production of magnetic resonance images. MRI safety, coil function and selection, advanced pulse sequences, magnetic resonance angiography (MRA), motion control techniques, pathology, artifacts, functional magnetic resonance imaging (fMRI).

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT356 - Computed Tomography II

Overview

Course Subject Code
MIT

Course Number
356

Course Title
Computed Tomography II

Department
Medical Imaging Technology

Course Description
CT patient care, radiation dose reduction, and adverse effects of contrast media. Sectional anatomy and pathology of the abdomen, pelvis, chest, head, and spine. Laboratory simulation of imaging protocols and scan post processing. Preparation for ARRT CT registry examination.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT365 - Mag. Resonance Imaging Review

Overview

Course Subject Code
MIT

Course Number
365

Course Title
Mag. Resonance Imaging Review

Department
Medical Imaging Technology

Course Description
Review of MR principles of image production for practicing and training MR technologists who intend to sit for the American Registry of Radiologic Technologists MRI examination.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

MIT407 - Seminar

Overview

Course Subject Code
MIT

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
24

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MIT411 - Magnetic Resonance Externship

Overview

Course Subject Code
MIT

Course Number
411

Course Title
Magnetic Resonance Externship

Department
Medical Imaging Technology

Course Description
This one-term (3-month) practicum is designed to develop the skills of the student in the special imaging modalities, i.e., computed tomography, magnetic resonance imaging, ultrasound, nuclear medicine and special radiographic procedures. The student is sent to an affiliated hospital that has the required special imaging equipment to give the hands-on experience to develop competency in each of three areas chosen by the student. The student will spend one month in each selected area.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
13

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
13

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS100 - Introduction to MLS

Overview

Course Subject Code
MLS

Course Number
100

Course Title
Introduction to MLS

Department
Medical Lab Science

Course Description
Orientation to the theory and practice of all aspects of the Medical Laboratory Science profession. The history of Medical Laboratory Science, professional organizations and career opportunities are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

MLS107 - Seminar

Overview

Course Subject Code
MLS

Course Number
107

Course Title
Seminar

Department
Medical Lab Science

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
45

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS207 - Seminar

Overview

Course Subject Code
MLS

Course Number
207

Course Title
Seminar

Department
Medical Lab Science

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS307 - Seminar

Overview

Course Subject Code
MLS

Course Number
307

Course Title
Seminar

Department
Medical Lab Science

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS407 - Seminar

Overview

Course Subject Code
MLS

Course Number
407

Course Title
Seminar

Department
Medical Lab Science

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum, Seminar, SR GR Capstone Project COOP, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
10

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
10

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS415 - Clinical Chemistry I

Overview

Course Subject Code
MLS

Course Number
415

Course Title
Clinical Chemistry I

Department
Medical Lab Science

Course Description
Fundamentals of chemical analysis of body fluids. Laboratory practice in chemical formats, data evaluation, laboratory utilization, and quality control theory. Laboratory exercises linked to lectures: amino acids, proteins, carbohydrates, lipids, blood gases, enzymes, trace elements, electrochemistry, osmometry, electrophoresis, and spectroscopy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
5

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS416 - Clinical Chemistry II

Overview

Course Subject Code
MLS

Course Number
416

Course Title
Clinical Chemistry II

Department
Medical Lab Science

Course Description
Fundamentals of chemical analysis of body fluids. Laboratory practice in chemical formats, data evaluation, laboratory utilization, and quality control theory. Laboratory exercises linked to lectures: renal and liver function, porphyrins, hormones, pregnancy, fetal development, bone metabolism, nutrition, and geriatrics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
5

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS417 - Clinical Chemistry III

Overview

Course Subject Code
MLS

Course Number
417

Course Title
Clinical Chemistry III

Department
Medical Lab Science

Course Description
The theory, practical application and technical performance of chemical analysis. Emphasis on theory of therapeutic drug monitoring, toxicology, proteomics, individualized screening, and method validation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
2

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS420 - Clinic Immun & Infect Serology

Overview

Course Subject Code
MLS

Course Number
420

Course Title
Clinic Immun & Infect Serology

Department
Medical Lab Science

Course Description
Lecture/laboratory coverage of human immunity, including innate and adaptive immunity, immune system organs, tissues, and activation. Immunological methods used in the clinical lab to assess human immune response in health and in various disease states are studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS422 - Molecular Diagnostics

Overview

Course Subject Code
MLS

Course Number
422

Course Title
Molecular Diagnostics

Department
Medical Lab Science

Course Description
Coverage of molecular techniques used in the clinical laboratory to diagnose disease associated with bacteria, viruses and geneticdeficiencies. Topics covered include principles of molecular biology, nucleic acid isolation, purification, amplification, quantitation, anddiscrimination. Specimen collection/handling, viral culturing and molecular lab operations are also covered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS424 - Hemostasis

Overview

Course Subject Code
MLS

Course Number
424

Course Title
Hemostasis

Department
Medical Lab Science

Course Description
Lecture and laboratory coverage of the mechanisms of hemostasis and basic pathophysiology of hemostatic disorders. Student perform laboratory procedures pertaining to hemostasis, interpret results and correlate with other laboratory data to identify disease states.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS432 - Foundations of MLS I

Overview

Course Subject Code
MLS

Course Number
432

Course Title
Foundations of MLS I

Department
Medical Lab Science

Course Description
The first of three courses covering essential professional practice issues related to the pre-analytical, analyticial, and post-analytical components of laboratory services. Lecture and lab emphasis on application of theories and concepts underlying professional practice in the contemporary clinical laboratory.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS442 - Hematology I

Overview

Course Subject Code
MLS

Course Number
442

Course Title
Hematology I

Department
Medical Lab Science

Course Description
Lecture and lab coverage of normal development and function of blood cells. Students learn to evaluate normal and abnormal blood cell morphology through microscopic examination of blood smears. Students perform laboratory procedures pertaining to hematology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
10

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS443 - Immunohematology I

Overview

Course Subject Code
MLS

Course Number
443

Course Title
Immunohematology I

Department
Medical Lab Science

Course Description
Lecture and lab coverage of immunohematology with practical application in the contemporary blood bank laboratory. Topics covered include blood groups biochemistry, genetics, and immunology, test methods and transfusion practices including donor selection, component preparation, quality management and compliance issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS444 - Microbiology I

Overview

Course Subject Code
MLS

Course Number
444

Course Title
Microbiology I

Department
Medical Lab Science

Course Description
Lecture/lab coverage of human bacterial pathogens seen in the clinical laboratory including gram positive and gram negative bacilli. Principles and methods of clinical microbiology laboratory diagnosis of bacterial diseases are studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
10

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

MLS445 - Microbiology II

Overview

Course Subject Code
MLS

Course Number
445

Course Title
Microbiology II

Department
Medical Lab Science

Course Description
Lecture/lab coverage of diseases caused by, and clinical laboratory identification of, human microbial organisms including anaerobes, spirochetes, mycobacteria, chlamydia, and rickettsia. Interpretation of clinical specimens, identification of pathogens, and the recognition of normal flora is also studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
8

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS449 - Principles of Urinalysis

Overview

Course Subject Code
MLS

Course Number
449

Course Title
Principles of Urinalysis

Department
Medical Lab Science

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS452 - Hematology II

Overview

Course Subject Code
MLS

Course Number
452

Course Title
Hematology II

Department
Medical Lab Science

Course Description
Comprehensive study of the pathophysiology of hematological disorders. Students perform microscopic examination of blood films, interpret results and correlate with other laboratory data to identify disease states.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
5

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
5

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS453 - Immunohematology II

Overview

Course Subject Code
MLS

Course Number
453

Course Title
Immunohematology II

Department
Medical Lab Science

Course Description
Continued study of immunohematology emphasizing clinical decision-making and problem-solving related to blood banking and transfusion therapy practices.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS457 - Research Seminar

Overview

Course Subject Code
MLS

Course Number
457

Course Title
Research Seminar

Department
Medical Lab Science

Course Description
Directed study, review, and class discussion of clinical laboratory assay methodology and data interpretation, and medical research methods including data analysis, regulatory requirements, and ethical issues. Relevant medical case studies and contemporary scientific research papers are presented and critiqued by students.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Externship/Practicum, Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS462 - Foundations of MLS II

Overview

Course Subject Code
MLS

Course Number
462

Course Title
Foundations of MLS II

Department
Medical Lab Science

Course Description
The second of three courses covering essential professional practice issues. Subjects covered include: educationalmethods, clinical laboratory management, and research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS463 - Foundations of MLS III

Overview

Course Subject Code
MLS

Course Number
463

Course Title
Foundations of MLS III

Department
Medical Lab Science

Course Description
Third of three courses covering essential professional practice issues related to the pre-analytical, analytical, and post-analytical components of laboratory services. Emphasis on practical experience through the application of theories and concepts of professional development, administration and supervision at an approved off-campus clinical site.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS464 - Med Mycology & Parasitology

Overview

Course Subject Code
MLS

Course Number
464

Course Title
Med Mycology & Parasitology

Department
Medical Lab Science

Course Description
Lecture and laboratory coverage of medically important fungi and parasites with emphasis on those seen in the clinical laboratory.Principles and methods of clinical laboratory diagnosis of infections and diseases caused by these organisms are studied.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MLS470 - Chemistry & Immunology Extern

Overview

Course Subject Code
MLS

Course Number
470

Course Title
Chemistry & Immunology Extern

Department
Medical Lab Science

Course Description
Three weeks full-time practical experience at an approved off-campus clinical site emphasizing application of knowledge and skills to perform a wide variety of testing in a contemporary clinical chemistry/ immunology laboratory and further develop discipline-specific competency.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
9

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
9

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS471 - Hematology Externship

Overview

Course Subject Code
MLS

Course Number
471

Course Title
Hematology Externship

Department
Medical Lab Science

Course Description
Three weeks full-time practical experience at an approved off campus clinical site emphasizing application of knowledge and skills to perform a wide variety of testing in a contemporary clinical hematology laboratory and further develop discipline-specific competency.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
9

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
9

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS472 - Microbiology Externship

Overview

Course Subject Code
MLS

Course Number
472

Course Title
Microbiology Externship

Department
Medical Lab Science

Course Description
Three weeks full-time practical experience at an approved off-campus clinical site emphasizing application of knowledge and skills to perform a wide variety of testing in a contemporary clinical Microbiology laboratory and further develop discipline-specific competency.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
9

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
9

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS473 - Immunohematology Extern

Overview

Course Subject Code
MLS

Course Number
473

Course Title
Immunohematology Extern

Department
Medical Lab Science

Course Description
Practical experience at an approved off-campus clinical site emphasizing application of knowledge and skills to perform a wide variety of testing in a contemporary blood bank laboratory and further develop discipline-specific bank laboratory and further develop discipline-specific competency. Prerequisite: successful completion of all didactic, pre-clinical coursework in the MLS program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
9

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

MLS475 - MLS Capstone

Overview

Course Subject Code
MLS

Course Number
475

Course Title
MLS Capstone

Department
Medical Lab Science

Course Description
Capstone experience to include student projects covering method validation, development and writing of standard operating procedures, implementation of laboratory training programs and other advanced topics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

MUS207 - Seminar

Overview

Course Subject Code
MUS

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities Perform General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

NMT107 - Seminar

Overview

Course Subject Code
NMT

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

NMT205 - Nuclear Med Admin

Overview

Course Subject Code
NMT

Course Number
205

Course Title
Nuclear Med Admin

Department
Medical Imaging Technology

Course Description
Orientation to the principles of management, marketing nuclear medicine services, and administrative procedures. Prerequisite: MIT 103 with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT207 - Seminar

Overview

Course Subject Code
NMT

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

NMT212 - Nuc Med Phy/Radiation Biophy

Overview

Course Subject Code
NMT

Course Number
212

Course Title
Nuc Med Phy/Radiation Biophy

Department
Medical Imaging Technology

Course Description
Interactions of radiation with matter. Introduction to the cellular and systemic responses to radiation. Early and late somatic and genetic effects described. Critical organ dose calculations risks versus benefits. Overview of film processors, associated chemistry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT215 - Radiochem/Radiopharmacy

Overview

Course Subject Code
NMT

Course Number
215

Course Title
Radiochem/Radiopharmacy

Department
Medical Imaging Technology

Course Description
The design and function of radionuclide generators, labeling procedures, sterility and pyrogenicity considerations, radionuclide and radiochemical quality control procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT217 - Patient Care

Overview

Course Subject Code
NMT

Course Number
217

Course Title
Patient Care

Department
Medical Imaging Technology

Course Description
Basic concepts of patient care, including consideration of physical and psychological needs of the patient and family. Routine and emergency patient care procedures. Infection control procedures utilizing Universal Precautions. Role of the nuclear medicine technologist in patient education.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT225 - Nuclear Phy/Instrumtn

Overview

Course Subject Code
NMT

Course Number
225

Course Title
Nuclear Phy/Instrumtn

Department
Medical Imaging Technology

Course Description
An in-depth examination of the physics in nuclear medicine, principles of detection, considerations of counting and imaging, collimators, planar imaging and associated quality assurance and control. Use of all major instrumentation in nuclear medicine departments.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT256 - Cardiovascular Imaging

Overview

Course Subject Code
NMT

Course Number
256

Course Title
Cardiovascular Imaging

Department
Medical Imaging Technology

Course Description
Introduction to Cardiovascular Imaging techniques in Nuclear Medicine including planar, SPECT, and PET imaging acquisition and processing protocols, radiopharmaceuticals, cardiac anatomy and physiology, exercise and pharmacological stress testing, and EKG principles.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course NMT205
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- NMT205 - Nuclear Med Admin

Additional Comments:

A minimum grade of 'D' in Course NMT215
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- NMT215 - Radiochem/Radiopharmacy

Additional Comments:

A minimum grade of 'D' in Course NMT217
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- NMT217 - Patient Care

Additional Comments:

NMT307 - Seminar

Overview

Course Subject Code
NMT

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

NMT311 - Imaging Procedures I

Overview

Course Subject Code
NMT

Course Number
311

Course Title
Imaging Procedures I

Department
Medical Imaging Technology

Course Description
Proper patient care before, during, and after the procedure, identification and administration of prescribed radio pharmaceuticals. The use of imaging devices and external detectors for body organ imaging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT312 - Imaging Procedures II

Overview

Course Subject Code
NMT

Course Number
312

Course Title
Imaging Procedures II

Department
Medical Imaging Technology

Course Description
Proper patient care before, during and after the procedure, identification and administration of prescribed radio pharmaceuticals. The use of imaging devices and external detectors for body organ imaging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT313 - Therapeutic Procedures

Overview

Course Subject Code
NMT

Course Number
313

Course Title
Therapeutic Procedures

Department
Medical Imaging Technology

Course Description
Common Therapeutic applications of radionuclides, dose ranges for each application, and proper techniques for calculating quantities of administered radiopharmaceuticals. Includes patient care, follow-up procedures and disposal of excreta.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT315 - Breast Imaging

Overview

Course Subject Code
NMT

Course Number
315

Course Title
Breast Imaging

Department
Medical Imaging Technology

Course Description
An in-depth analysis of breast anatomy and physiology, positioning, and interventional methods. Patient education and breast cancer statics will also be discussed at great lengths. Junior standing in Nuclear Medicine required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Contact Hours

Contact Hours Min
1

Billing Hours

Billing Hours Min
1

Lecture Hours

Lecture Hours Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT325 - SPECT Imaging/Comp Appl

Overview

Course Subject Code
NMT

Course Number
325

Course Title
SPECT Imaging/Comp Appl

Department
Medical Imaging Technology

Course Description
Single photon emission computed tomography (SPECT) imaging and computer applications as applied to nuclear medicine imaging. Demonstration of computer techniques and ECG monitoring and interpretation. Theoretic basis of computer operations and medical applications in nuclear medicine. Lab experience with computerized systems, including hospital sites.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT346 - Magnetic Resonance

Overview

Course Subject Code
NMT

Course Number
346

Course Title
Magnetic Resonance

Department
Medical Imaging Technology

Course Description
Physics and principles used in the production of magnetic resonance images and spectroscopy. Static magnetic fields, gradient magnetic fields, secondary coil fields, nuclear magnetic resonance (NMR), spatial domain, frequency domain, computer data acquisition, relaxation times, pulse sequence diagrams. Laboratory simulation is included.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
4

Pre-Requisites

No Requirements

NMT355 - Computed Tomography

Overview

Course Subject Code
NMT

Course Number
355

Course Title
Computed Tomography

Department
Medical Imaging Technology

Course Description
X-ray physics, scanner components, and data acquisition of computed tomography. Image reconstruction, manipulation, and artifacts. CT patient care and imaging procedures of the head, neck, spine, chest, abdomen, pelvis and musculoskeletal system. Laboratory simulator practice on image manipulation, scan post processing and reconstruction.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT367 - PET Imaging

Overview

Course Subject Code
NMT

Course Number
367

Course Title
PET Imaging

Department
Medical Imaging Technology

Course Description
Introduction to Position Emission Tomography (PET) imaging techniques including acquisition protocols, processing protocols, quality control procedures, radiation protection, patient screening, radiopharmaceuticals, image fusion, and imaging procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT388 - Externship Preparation

Overview

Course Subject Code
NMT

Course Number
388

Course Title
Externship Preparation

Department
Medical Imaging Technology

Course Description
Review and summarize key concepts in Nuclear Medicine. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the hospital environment. Review and discussion of the NMT Externship Handbook and Procedures Log. Prerequisites: Third quarter junior-level status is required for this course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

NMT407 - Seminar

Overview

Course Subject Code
NMT

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
2

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

NMT410 - Nuclear Med Tech Extern

Overview

Course Subject Code
NMT

Course Number
410

Course Title
Nuclear Med Tech Extern

Department
Medical Imaging Technology

Course Description
All students must complete four consecutive terms (12 months) of clinical experience in nuclear medicine technology at an OIT approved site. Students will work under the direct supervision of a registered Nuclear Medicine Technologist. Prerequisite: All NMT courses with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

NRS207 - Seminar

Overview

Course Subject Code
NRS

Course Number
207

Course Title
Seminar

Department
OHSU Nursing

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Seminar, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
20

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
20

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
20

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
20

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

NRS307 - Seminar

Overview

Course Subject Code
NRS

Course Number
307

Course Title
Seminar

Department
OHSU Nursing

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
20

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
20

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
20

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
20

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

NRS407 - Seminar

Overview

Course Subject Code
NRS

Course Number
407

Course Title
Seminar

Department
OHSU Nursing

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
20

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
20

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
20

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
20

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OENG107 - Seminar

Overview

Course Subject Code
OENG

Course Number
107

Course Title
Seminar

Department
Department Not Declared

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OENG207 - Seminar

Overview

Course Subject Code
OENG

Course Number
207

Course Title
Seminar

Department
Department Not Declared

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OENG307 - Seminar

Overview

Course Subject Code
OENG

Course Number
307

Course Title
Seminar

Department
Department Not Declared

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OENG407 - Seminar

Overview

Course Subject Code
OENG

Course Number
407

Course Title
Seminar

Department
Department Not Declared

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OS107 - Seminar

Overview

Course Subject Code
OS

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Pre-Requisites

No Requirements

OS207 - Seminar

Overview

Course Subject Code
OS

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Pre-Requisites

No Requirements

OS307 - Seminar

Overview

Course Subject Code
OS

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OS407 - Seminar

Overview

Course Subject Code
OS

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSH107 - Overseas Humanities

Overview

Course Subject Code
OSH

Course Number
107

Course Title
Overseas Humanities

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSH207 - Overseas Humanities

Overview

Course Subject Code
OSH

Course Number
207

Course Title
Overseas Humanities

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSH307 - Overseas Humanities

Overview

Course Subject Code
OSH

Course Number
307

Course Title
Overseas Humanities

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

Pre-Requisites

No Requirements

OSH407 - Overseas Humanities

Overview

Course Subject Code
OSH

Course Number
407

Course Title
Overseas Humanities

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar, Lecture

Grade Modes
Graded, Pass/No pass

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

OSLS207 - Overseas Lab Science

Overview

Course Subject Code
OSLS

Course Number
207

Course Title
Overseas Lab Science

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSMS107 - Seminar

Overview

Course Subject Code
OSMS

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSMS207 - Seminar

Overview

Course Subject Code
OSMS

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSMS307 - Seminar

Overview

Course Subject Code
OSMS

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSMS407 - Seminar

Overview

Course Subject Code
OSMS

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSSS107 - Seminar

Overview

Course Subject Code
OSSS

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSSS207 - Seminar

Overview

Course Subject Code
OSSS

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSSS307 - Seminar

Overview

Course Subject Code
OSSS

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

OSSS407 - Seminar

Overview

Course Subject Code
OSSS

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Department
Health Sciences

Schedule Type
Seminar

Grade Modes
Graded, Pass/No pass

Course Description
(Hours to be arranged each term.)

Course Attributes
Social Science General Ed

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

PHED107 - Seminar

Overview

Course Subject Code
PHED

Course Number
107

Course Title
Seminar

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED111 - Core Strength and Balance

Overview

Course Subject Code
PHED

Course Number
111

Course Title
Core Strength and Balance

Department
Health Sciences

Course Description
BOSU ball training to improve balance and core strength and alleviate back pain and instability. This class includes full body training, using floor work, cardio circuits, and isometric exercises.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED113 - Super Circuit/Cardio Training

Overview

Course Subject Code
PHED

Course Number
113

Course Title
Super Circuit/Cardio Training

Department
Health Sciences

Course Description
This course is designed to use a combination of free weights and/or the universal machines, along with cardiovascular fitness to provide a comprehensive program to increase muscle strength and endurance.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED121 - Total Fitness Conditioning I

Overview

Course Subject Code
PHED

Course Number
121

Course Title
Total Fitness Conditioning I

Department
Health Sciences

Course Description
Opportunity to do an independent study of a selected aspect of physical education. Class designed to develop and encourage healthy attitudes and habits with regard to cardiovascular efficiency, body composition, muscular strength and endurance, and flexibility.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED122 - Total Fitness Conditioning II

Overview

Course Subject Code
PHED

Course Number
122

Course Title
Total Fitness Conditioning II

Department
Health Sciences

Course Description
Opportunity to do an independent study of a selected aspect of physical education. Class designed to develop and encourage healthy attitudes and habits with regard to body composition, muscular strength and endurance. Geared toward weight training workouts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED145 - Relaxation and Flexibility

Overview

Course Subject Code
PHED

Course Number
145

Course Title
Relaxation and Flexibility

Department
Health Sciences

Course Description
Explore Tai Chi and Qigong methods for stress reduction and facilitation of balance and flexibility. Other stress reduction methods include autogenic training, progressive muscle relaxation, and self-hypnosis. Explore the impact of cardiorespiratory exercise and diet on stress management.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED146 - Yoga

Overview

Course Subject Code
PHED

Course Number
146

Course Title
Yoga

Department
Health Sciences

Course Description
Class is generally Hatha Yoga, along with basic Ashitanga, and Kundalini Yoga techniques. In yoga a participant can hope to improve their flexibility, strength and balance.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED151 - Karate

Overview

Course Subject Code
PHED

Course Number
151

Course Title
Karate

Department
Health Sciences

Course Description
Dive into the very heart and soul of Karate! Teachings in traditional forms, self-defense, and competitive style point sparring. Great for new and experienced students. Promotes physical activity, increased mobility, and awareness while learning a valuable life skill.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED163 - Wilderness Navigation

Overview

Course Subject Code
PHED

Course Number
163

Course Title
Wilderness Navigation

Department
Health Sciences

Course Description
Learn to read a map and utilize a compass. Gain skill to find precise wilderness locations. Learn the dangers of wilderness travel, and deal with those situations. Two field trips polish skills using map and compass to navigate.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED174 - Recreational Basketball

Overview

Course Subject Code
PHED

Course Number
174

Course Title
Recreational Basketball

Department
Health Sciences

Course Description
Basketball game played in a recreational environment. Emphasis on free play and team skill development. Most suitable for players with basic basketball skills.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED175 - Rugby

Overview

Course Subject Code
PHED

Course Number
175

Course Title
Rugby

Department
Health Sciences

Course Description
Basic rugby skill, practice, and game play. Players of any skill level welcome. Participants should be able to engage in physical contact, strength development, endurance training, team practice, and game play.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED180 - Varsity Cross Country

Overview

Course Subject Code
PHED

Course Number
180

Course Title
Varsity Cross Country

Department
Health Sciences

Course Description
Competitive Cross Country for multi-level distance runners. Trail running, conditioning, strength training, psychological peak performance, nutrition, race tactics, running physiology and injury prevention is included. Participation in intercollegiate competition is included. Varsity athletes only or coach's approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED181 - Varsity Soccer

Overview

Course Subject Code
PHED

Course Number
181

Course Title
Varsity Soccer

Department
Health Sciences

Course Description
Competitive Soccer at the intercollegiate level, including coaching strategies, offensive and defensive strategies, training, conditioning and team organization. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED182 - Varsity Track/Field

Overview

Course Subject Code
PHED

Course Number
182

Course Title
Varsity Track/Field

Department
Health Sciences

Course Description
Competitive Track and Field techniques are covered including training, conditioning and team organization. Competition at the intercollegiate level. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED183 - Varsity Men's Baseball

Overview

Course Subject Code
PHED

Course Number
183

Course Title
Varsity Men's Baseball

Department
Health Sciences

Course Description
Competitive Baseball on the intercollegiate level. Including coaching strategies, offensive and defensive strategies, training, conditioning and team organization. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED184 - Varsity Men's Basketball

Overview

Course Subject Code
PHED

Course Number
184

Course Title
Varsity Men's Basketball

Department
Health Sciences

Course Description
Competitive Basketball, including coaching strategies, offensive and defensive strategies, training, conditioning and team organization, including intercollegiate competition. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED185 - Varsity Women's Basketball

Overview

Course Subject Code
PHED

Course Number
185

Course Title
Varsity Women's Basketball

Department
Health Sciences

Course Description
Competitive Basketball, including coaching strategies, offensive and defensive strategies, training, conditioning and team organization, including intercollegiate competition. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED186 - Varsity Women's Softball

Overview

Course Subject Code
PHED

Course Number
186

Course Title
Varsity Women's Softball

Department
Health Sciences

Course Description
Competitive Softball including coaching strategies, offensive and defensive strategies, training, conditioning and team organization, including intercollegiate competition. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED187 - Varsity Women's Volleyball

Overview

Course Subject Code
PHED

Course Number
187

Course Title
Varsity Women's Volleyball

Department
Health Sciences

Course Description
Competitive Volleyball at the intercollegiate level including advanced technique analysis, offensive and defensive strategies, training, conditioning, and team organization. Varsity athletes only or coaches approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED189 - Varsity Golf

Overview

Course Subject Code
PHED

Course Number
189

Course Title
Varsity Golf

Department
Health Sciences

Course Description
Competitive golf techniques are covered including training, conditioning, team organization advanced technique analysis. Competition at the intercollegiate level. Varsity athletes only or coach's approval.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Activity, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED207 - Major Sports Seminar

Overview

Course Subject Code
PHED

Course Number
207

Course Title
Major Sports Seminar

Department
Health Sciences

Course Description
Development of professional competencies in fundamentals of training methods and objectives of major sports. Development of professional competencies in fundamentals of training methods and objectives of major sports.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Activity

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
2

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED255 - Intro to Coaching Theory

Overview

Course Subject Code
PHED

Course Number
255

Course Title
Intro to Coaching Theory

Department
Health Sciences

Course Description
An introduction to the central principles of coaching. Exploration of coaching as a practice including theories of coaching, motivation, and organization.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHED307 - Seminar

Overview

Course Subject Code
PHED

Course Number
307

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED355 - Coaching in Application

Overview

Course Subject Code
PHED

Course Number
355

Course Title
Coaching in Application

Department
Health Sciences

Course Description
Application of the principles of coaching. Application of the theories of coaching across contexts and in various different sports.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHED407 - Seminar

Overview

Course Subject Code
PHED

Course Number
407

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHED455 - Coaching Practicum

Overview

Course Subject Code
PHED

Course Number
455

Course Title
Coaching Practicum

Department
Health Sciences

Course Description
Practical application of coaching theories and methods in context. 60 hours of directed coaching experience.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHIL107 - Seminar

Overview

Course Subject Code
PHIL

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHIL205 - Introduction to Logic

Overview

Course Subject Code
PHIL

Course Number
205

Course Title
Introduction to Logic

Department
Humanities & Social Sciences

Course Description
This course prepares students to critique and assess arguments according to the rules of logic. Students will learn formal and informal methods for assessing deductive, inductive, abductive arguments. Logic is useful for all majors because everything you learn at OIT is based on arguments.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL207 - Seminar

Overview

Course Subject Code
PHIL

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHIL215 - Ethical Theory

Overview

Course Subject Code
PHIL

Course Number
215

Course Title
Ethical Theory

Department
Humanities & Social Sciences

Course Description
Students will become familiar with some plausible moral theories: Kant's moral theory, Aristotle's moral theory, Utilitarianism, The Social Contract, Feminist Ethics and with some more controversial moral theories: Cultural Relativism, Divine Command Theory, Natural Law Theory, Emotivism.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL225 - Bioethics

Overview

Course Subject Code
PHIL

Course Number
225

Course Title
Bioethics

Department
Humanities & Social Sciences

Course Description
This course examines questions concerning the value of life and when it is or is not justified to kill or allow life to end. Accordingly, the course addresses a variety of relevant issues like euthanasia, the death penalty, military violence and what forms of life should be protected.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL255 - Ethics and Philosophy of AI

Overview

Course Subject Code
PHIL

Course Number
255

Course Title
Ethics and Philosophy of AI

Department
Humanities & Social Sciences

Course Description
This course examines issues concerning artificial intelligence (AI), such as the dangers and benefits of AI development. AI's impact on culture and society, whether an AI could qualify as a person, and what AI development implies about human nature.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL305 - Medical Ethics

Overview

Course Subject Code
PHIL

Course Number
305

Course Title
Medical Ethics

Department
Humanities & Social Sciences

Course Description
Students will become familiar with Kant's moral theory and Utilitarianism and use them to examine the morality of abortion, paternalism, allocation of medical resources, and the right to die, among others. Students will learn how to make rational moral judgments. Junior standing required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI227Z - Technical Writing

OR

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

Additional Comments:

PHIL307 - Seminar

Overview

Course Subject Code
PHIL

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHIL331 - Ethics in the Professions

Overview

Course Subject Code
PHIL

Course Number
331

Course Title
Ethics in the Professions

Department
Humanities & Social Sciences

Course Description
Applied ethics course that focuses on examining ethical issues common to the professions, such as privacy, confidentiality, social responsibility, and whistleblowing. Emphasizes critical thinking and ethical decision-making skills.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL336 - Moral Standing &Moral Beings

Overview

Course Subject Code
PHIL

Course Number
336

Course Title
Moral Standing &Moral Beings

Department
Humanities & Social Sciences

Course Description
This course examines questions surrounding the idea that some beings morally matter for their own sake, and thus have “moral standing”. Such questions include: What is it that gives a being moral standing? And how do advances in technology, and science, and medicine shed light on the topic?

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL342 - Business Ethics

Overview

Course Subject Code
PHIL

Course Number
342

Course Title
Business Ethics

Department
Humanities & Social Sciences

Course Description
Business ethics course that focuses on ethical issues commonly found in business, such as whistle-blowing, discrimination, finance, and international manufacturing. Emphasizes critical thinking, critical reading, and the importance of personal ethics. Prerequisites: One previous Humanities course.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHIL355 - Ethics and Philosophy of AI

Overview

Course Subject Code
PHIL

Course Number
355

Course Title
Ethics and Philosophy of AI

Department
Humanities & Social Sciences

Course Description
This course examines issues concerning artificial intelligence (AI), such as the dangers and benefits of AI development, AI's impact on culture and society, whether an AI could qualify as a person, and what AI development implies about human nature.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI227Z - Technical Writing

OR

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

Additional Comments:

PHIL407 - Seminar

Overview

Course Subject Code
PHIL

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHIL425 - Environmental Ethics

Overview

Course Subject Code
PHIL

Course Number
425

Course Title
Environmental Ethics

Department
Humanities & Social Sciences

Course Description
Students will become familiar with Kant's moral theory, Utilitarianism, and Leopold's Land Ethic. Possible topics include: What is nature? Do we have a moral obligation to restore ecosystems? If we have moral obligations to nature, on what grounds?

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Earn a minimum grade (UG) of D in the following:
- WRI122 - Argumentative Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:
- WRI122Z - Composition II

OR

Earn a minimum grade (UG) of D in the following:
- WRI227 - Technical Report Writing (Inactive)

OR

Earn a minimum grade (UG) of D in the following:

- WRI227Z - Technical Writing

Additional Comments:

PHM105 - Intro to Population Health Mgm

Overview

Course Subject Code
PHM

Course Number
105

Course Title
Intro to Population Health Mgm

Department
Humanities & Social Sciences

Course Description
This course introduces students to the field of population health management, including the various careers, initiatives, and skills related to population health practice.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHM321 - Program Planning & Evaluation

Overview

Course Subject Code
PHM

Course Number
321

Course Title
Program Planning & Evaluation

Department
Humanities & Social Sciences

Course Description
This course prepares students to identify, develop, and coordinate interventions in a community health setting to target chronic disease risk reduction. Students will gain an understanding of chronic disease epidemiology and best practices in public health programming and gain skills in program planning methods.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHM420 - Population Health Mgmt Extern

Overview

Course Subject Code
PHM

Course Number
420

Course Title
Population Health Mgmt Extern

Department
Humanities & Social Sciences

Course Description
This course prepares students for work in the field of Population Health Management. Students will gain professional experience and apply the knowledge and skills learned in Population Health Management courses to real-world population health issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Lecture, Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
16

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
16

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
16

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
16

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHM435 - PHM Research Center

Overview

Course Subject Code
PHM

Course Number
435

Course Title
PHM Research Center

Department
Humanities & Social Sciences

Course Description
The research center course places students as professionals in training at the Population Health Management Research Center. The mission of the Oregon Tech Population Health Management Research Center is to provide students rigorous training in applied social science and community-based research through professional work experience in population health, supporting organizations that promote the education and overall wellbeing of the region. (Can take more than once for credit, up to 24 credits)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

PHY107 - Seminar

Overview

Course Subject Code
PHY

Course Number
107

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHY201 - General Physics

Overview

Course Subject Code
PHY

Course Number
201

Course Title
General Physics

Department
Natural Sciences

Course Description
An introduction to physics with study of Newtonian mechanics, including kinematics, dynamics, work, energy, power and hydraulics. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY202 - General Physics

Overview

Course Subject Code
PHY

Course Number
202

Course Title
General Physics

Department
Natural Sciences

Course Description
Temperature systems, heat, kinetic theory of gasses, introductory thermodynamics, and the fundamentals of electricity and magnetism. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY203 - General Physics

Overview

Course Subject Code
PHY

Course Number
203

Course Title
General Physics

Department
Natural Sciences

Course Description
Wave motion, sound, introduction to geometrical and physical optics, and topics from modern physics. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY207 - Seminar

Overview

Course Subject Code
PHY

Course Number
207

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Laboratory, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHY215 - Topics in Astronomy

Overview

Course Subject Code
PHY

Course Number
215

Course Title
Topics in Astronomy

Department
Natural Sciences

Course Description
Astronomy including a survey of the solar system, constellations, star characteristics, star groupings, galactic and extragalactic objects, stellar evolution, and instrumentation with emphasis on topics of maximum interest to the students.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY217 - Physics of Med Imaging

Overview

Course Subject Code
PHY

Course Number
217

Course Title
Physics of Med Imaging

Department
Natural Sciences

Course Description
An introduction to physics for MIT majors. Topics include: basic mechanics, basic electrostatics, fundamentals of electronics, magnetism, sources and types of radiation, and image formation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY221 - General Physics w/Calculus

Overview

Course Subject Code
PHY

Course Number
221

Course Title
General Physics w/Calculus

Department
Natural Sciences

Course Description
Basic principles of physics with emphasis on applications of calculus. Newtonian mechanics, including kinematics, dynamics, work, energy, power, and hydraulics. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

PHY222 - General Physics w/Calculus

Overview

Course Subject Code
PHY

Course Number
222

Course Title
General Physics w/Calculus

Department
Natural Sciences

Course Description
Temperature systems, heat, kinetic theory of gasses, thermodynamics and the fundamentals of electricity and magnetism. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY223 - General Physics w/Calculus

Overview

Course Subject Code
PHY

Course Number
223

Course Title
General Physics w/Calculus

Department
Natural Sciences

Course Description
Wave motion, sound, introduction to geometrical and physical optics, and selected topics from modern physics. All general physics students must register for a laboratory section.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY255 - Sophomore Research

Overview

Course Subject Code
PHY

Course Number
255

Course Title
Sophomore Research

Department
Natural Sciences

Course Description
This research course is the first in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
3

PHY305 - Nanoscience & Nanotech

Overview

Course Subject Code
PHY

Course Number
305

Course Title
Nanoscience & Nanotech

Department
Natural Sciences

Course Description
Survey of chemical and physical phenomena as applied to nanoscale materials, including metal and semiconductor nanoparticles and carbon nanostructures. Discussion of major synthesis and characterization techniques. Biological and engineering applications of nanoscale materials.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
4

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY307 - Seminar

Overview

Course Subject Code
PHY

Course Number
307

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHY311 - Intro to Modern Physics

Overview

Course Subject Code
PHY

Course Number
311

Course Title
Intro to Modern Physics

Department
Natural Sciences

Course Description
An introduction to physics of the 20th century, including selected topics from atomic and nuclear physics and quantum theory with applications in science and industry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY312 - Intro to Modern Physics

Overview

Course Subject Code
PHY

Course Number
312

Course Title
Intro to Modern Physics

Department
Natural Sciences

Course Description
An introduction to physics of the 20th century, including selected topics from atomic and nuclear physics and quantum theory with applications in science and industry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY313 - Intro to Modern Physics

Overview

Course Subject Code
PHY

Course Number
313

Course Title
Intro to Modern Physics

Department
Natural Sciences

Course Description
An introduction to physics of the 20th century, including selected topics from atomic and nuclear physics and quantum theory with applications in science and industry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY330 - Electricity & Magnetism

Overview

Course Subject Code
PHY

Course Number
330

Course Title
Electricity & Magnetism

Department
Natural Sciences

Course Description
A study of electromagnetic phenomena leading to and using Maxwell's equations. Topics will include static fields in vacuum and in dielectric media, electric and magnetic potentials, and the energy density of electromagnetic fields.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY355 - Junior Research

Overview

Course Subject Code
PHY

Course Number
355

Course Title
Junior Research

Department
Natural Sciences

Course Description
This research course is the second in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

PHY407 - Seminar

Overview

Course Subject Code
PHY

Course Number
407

Course Title
Seminar

Department
Natural Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PHY410 - Math Meth:Fourier Optics

Overview

Course Subject Code
PHY

Course Number
410

Course Title
Math Meth:Fourier Optics

Department
Natural Sciences

Course Description
Linear systems, Fourier transforms, and their use in optics. Topics will include special functions, orthogonal expansions, Fourier series and transforms and spectra of functions, mathematical operators, convolution, autocorrelation, cross correlation, linear systems as filters, and signal processing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY448 - Geometric Optics

Overview

Course Subject Code
PHY

Course Number
448

Course Title
Geometric Optics

Department
Natural Sciences

Course Description
Reflection and refraction at plane and curved surfaces; imaging properties of lenses; first-order Gaussian optics and thin-lens system layout; matrix optics; ray-tracing software; spherical and chromatic aberrations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY449 - Radiometry & Optical Detect

Overview

Course Subject Code
PHY

Course Number
449

Course Title
Radiometry & Optical Detect

Department
Electrical & Renewable Energy

Course Description
Fundamentals of radiometry and photometry; detection of light using thermal and photon (photoemissive, photoconductive, and photovoltaic) methods; noise processes; blackbodies; charge transfer devices; spectroradiometry.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY450 - Physical Optics

Overview

Course Subject Code
PHY

Course Number
450

Course Title
Physical Optics

Department
Natural Sciences

Course Description
Spherical and planar waves; scalar diffraction theory; Fresnel and Fraunhofer diffraction and application to measurement; interference and interferometers; optical transfer functions; coherent optical systems and holography.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY451 - Lasers

Overview

Course Subject Code
PHY

Course Number
451

Course Title
Lasers

Department
Natural Sciences

Course Description
Laser radiation properties, laser cavities, coherence, atomic spectra, pumping rate, power gain, threshold conditions, beam shape, mode structure; ion, molecular, solid-state, dye, semiconductor, and fiber lasers.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY452 - Waveguides and Fiber Optics

Overview

Course Subject Code
PHY

Course Number
452

Course Title
Waveguides and Fiber Optics

Department
Natural Sciences

Course Description
Light propagation in fibers and waveguides; termination, coupling, and splicing of fibers; fiber optic communication; optical time domain reflectometry, fiber amplifiers, and fiber sensors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY453 - Optical Metrology

Overview

Course Subject Code
PHY

Course Number
453

Course Title
Optical Metrology

Department
Natural Sciences

Course Description
Modern optical metrology with emphasis on non-destructive testing; Fourier optics; Moiré and polarization methods; classic and holographic interferometry; speckle techniques; fringe analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Lab Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY455 - Senior Research

Overview

Course Subject Code
PHY

Course Number
455

Course Title
Senior Research

Department
Natural Sciences

Course Description
This research course is the third in a series of three. Students will learn skills needed to succeed in science through exploration of research opportunities, developing a research project, and ultimately publishing their research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
3

PHY548 - Geometric Optics

Overview

Course Subject Code
PHY

Course Number
548

Course Title
Geometric Optics

Department
Natural Sciences

Course Description
Reflection and refraction at plane and curved surfaces; imaging properties of lenses; first-order Gaussian optics and thin-lens system layout; matrix optics; ray-tracing software; spherical and chromatic aberrations.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY549 - Radiometry & Optical Detection

Overview

Course Subject Code
PHY

Course Number
549

Course Title
Radiometry & Optical Detection

Department
Electrical & Renewable Energy

Course Description
Fundamentals of radiometry and photometry; detection of light using thermal and photon (photoemissive, photoconductive, and photovoltaic) methods; noise processes; blackbodies; charge transfer devices; spectroradiometry.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY550 - Physical Optics

Overview

Course Subject Code
PHY

Course Number
550

Course Title
Physical Optics

Department
Natural Sciences

Course Description
Spherical and planar waves; scalar diffraction theory; Fresnel and Fraunhofer diffraction and application to measurement; interference and interferometers; optical transfer functions; coherent optical systems and holography.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY551 - Lasers

Overview

Course Subject Code
PHY

Course Number
551

Course Title
Lasers

Department
Natural Sciences

Course Description
Laser radiation properties, laser cavities, coherence, atomic spectra, pumping rate, power gain, threshold conditions, beam shape, mode structure; ion, molecular, solid-state, dye, semiconductor, and fiber lasers.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY552 - Waveguides & Fiber Optics

Overview

Course Subject Code
PHY

Course Number
552

Course Title
Waveguides & Fiber Optics

Department
Natural Sciences

Course Description
Light propagation in fibers and waveguides; termination, coupling, and splicing of fibers; fiber optic communication; optical time domain reflectometry, fiber amplifiers, and fiber sensors.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PHY553 - Optical Metrology

Overview

Course Subject Code
PHY

Course Number
553

Course Title
Optical Metrology

Department
Natural Sciences

Course Description
Modern optical metrology with emphasis on non-destructive testing; Fourier optics; Moiré and polarization methods; classic and holographic interferometry; speckle techniques; fringe analysis.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG107 - Seminar

Overview

Course Subject Code
PSG

Course Number
107

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSG207 - Seminar

Overview

Course Subject Code
PSG

Course Number
207

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSG211 - Fund of PSG & Patient Care

Overview

Course Subject Code
PSG

Course Number
211

Course Title
Fund of PSG & Patient Care

Department
Health Sciences

Course Description
Basic concepts of patient care, including consideration of physical and psychological needs of the patient and family. Routine and emergency patient care procedures. Infection control procedures utilizing universal precautions. Role of the polysomnographic technologist in patient education. Ethical and legal issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
SR GR Cap Project COOP Lab, Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG221 - Physiology of Sleep

Overview

Course Subject Code
PSG

Course Number
221

Course Title
Physiology of Sleep

Department
Health Sciences

Course Description
Introduction to sleep architecture and the function of changes in electroencephalograms, electrocardiograms, and electromyograms. Physiology of sleep-induced alterations in pharyngeal muscle tone, autonomic control and polysomnographic staging.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
SR GR Cap Project COOP Lab, Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG231 - Sleep Disorders Pathology

Overview

Course Subject Code
PSG

Course Number
231

Course Title
Sleep Disorders Pathology

Department
Health Sciences

Course Description
Normal and abnormal sleep disorders integrating the physiological functions of the nervous, respiratory, and cardiovascular systems. Emphasis on basic sleep sciences, physiology, diagnosis and treatment of sleep disorders. Prerequisite: PSG 221.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
SR GR Cap Project COOP Lab, Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG246 - Sleep Disorders in Women

Overview

Course Subject Code
PSG

Course Number
246

Course Title
Sleep Disorders in Women

Department
Health Sciences

Course Description
In-depth study of sleep disorders in women exploring: the menstrual cycle; rhythms and shift working women; polycystic ovary syndrome; endometriosis, fibromyalgia; breast cancer and fatigue; pregnancy and sleep-disordered breathing; insomnia and other medically related sleep disturbances.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG264 - Pediatric/Neonatal Psg

Overview

Course Subject Code
PSG

Course Number
264

Course Title
Pediatric/Neonatal Psg

Department
Health Sciences

Course Description
Presentation of theory and its practical applications in pediatric and neonatal respiratory diseases and other sleep disorders. Includes pathophysiology, etiology, patient testing, scoring and treatment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, SR GR Cap Project COOP Lab, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG271A - Clinical Polysom Tech A

Overview

Course Subject Code
PSG

Course Number
271A

Course Title
Clinical Polysom Tech A

Department
Health Sciences

Course Description
Medical terminology, instrumentation setup and calibration, 10/20 system, patient hook-ups, recording and monitoring techniques, documentation, event recognition, monitoring, therapeutic intervention, professional issues, and patient-technologist interactions related to polysomnographic technology. Part-time students only, requires 18 night-time clinical hours weekly.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Externship/Practicum, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
14

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG271B - Clinical Polysom Tech B

Overview

Course Subject Code
PSG

Course Number
271B

Course Title
Clinical Polysom Tech B

Department
Health Sciences

Course Description
Medical terminology, instrumentation setup and calibration, 10/20 system, patient hook-ups, recording and monitoring techniques, documentation, event recognition, monitoring, therapeutic intervention; professional issues, and patient-technologist interactions related to polysomnographic technology. Part-time students only, requires 18 night-time clinical hours weekly.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Externship/Practicum, Lecture/Lab, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
14

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course PSG271A
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- PSG271A - Clinical Polysom Tech A

Additional Comments:

PSG271C - Clinical Polysom Tech C

Overview

Course Subject Code
PSG

Course Number
271C

Course Title
Clinical Polysom Tech C

Department
Health Sciences

Course Description
Advanced aspects of polysomnographic technology including recognition of sleep disorders, recording and monitoring, therapeutic interventions, scoring, MSLT, RTWS, and neurophysiology interpretation of sleep. Part-time students only, requires 18 daytime clinical hours weekly.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Lecture/Lab, Externship/ Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
14

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG291 - Clinical Sleep Educator

Overview

Course Subject Code
PSG

Course Number
291

Course Title
Clinical Sleep Educator

Department
Health Sciences

Course Description
Examination of the sleep technologist's increasing involvement in the identification, treatment and long-term monitoring of patients presenting with insomnia, sleep apnea, and poor sleep hygiene. Review of the Clinical Sleep Educator certificate offered by the BRPT.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSG307 - Seminar

Overview

Course Subject Code
PSG

Course Number
307

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSG407 - Seminar

Overview

Course Subject Code
PSG

Course Number
407

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY000 - Psychology Elective

Overview

Course Subject Code
PSY

Course Number
000

Course Title
Psychology Elective

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

PSY00U - Psychology Elective Upper

Overview

Course Subject Code
PSY

Course Number
00U

Course Title
Psychology Elective Upper

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

PSY107 - Seminar

Overview

Course Subject Code
PSY

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY201Z - Intro to Psychology I

Overview

Course Subject Code
PSY

Course Number
201Z

Course Title
Intro to Psychology I

Department
Humanities & Social Sciences

Course Description
Introduction to the science and application of psychology. Emphasis will be placed on psychological concepts, theories and principles related to: Research Methods, Behavioral Neuroscience, Consciousness, Sensation/Perception, Learning, Memory, Thinking and Intelligence, and related topics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY202 - Psychology

Overview

Course Subject Code
PSY

Course Number
202

Course Title
Psychology

Department
Humanities & Social Sciences

Course Description
Introduction to the principles and applications of psychology. Topics include the brain and behavior, consciousness, sensation and perception, health psychology, motivation, and emotion.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY202Z - Intro to Psychology II

Overview

Course Subject Code
PSY

Course Number
202Z

Course Title
Intro to Psychology II

Department
Humanities & Social Sciences

Course Description
Introduction to the science and application of psychology. Emphasis will be placed on psychological concepts, theories, and principles related to: Personality, Social Psychology, Health and Well-Being, Motivation and Emotion, Disorders, Therapies, Lifespan Development, and related topics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY203 - Psychology

Overview

Course Subject Code
PSY

Course Number
203

Course Title
Psychology

Department
Humanities & Social Sciences

Course Description
Introduction to the principles and applications of psychology. Topics include social psychology, personality, abnormal psychology, psychotherapy, and development.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY207 - Seminar

Overview

Course Subject Code
PSY

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY215 - Abnormal Psychology I

Overview

Course Subject Code
PSY

Course Number
215

Course Title
Abnormal Psychology I

Department
Humanities & Social Sciences

Course Description
Overview of biological, psychological and social causes of abnormal behavior. Specific topics include models, classification and assessment of abnormal behavior, as well as anxiety, somatoform, dissociative, personality, impulse, alcohol and substance abuse disorders.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY216 - Abnormal Psychology II

Overview

Course Subject Code
PSY

Course Number
216

Course Title
Abnormal Psychology II

Department
Humanities & Social Sciences

Course Description
Overview of legal and ethical issues related to abnormal psychology. Techniques of group and individual therapy. Specific disorders include: sexual and gender identity, mood, schizophrenia, cognitive, and childhood and adolescence.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY225 - Applied Stats for Social Sci

Overview

Course Subject Code
PSY

Course Number
225

Course Title
Applied Stats for Social Sci

Department
Humanities & Social Sciences

Course Description
Provides an overview of basic statistical techniques in social sciences, including t-test, chi-square, ANOVA, correlation, and regression. Students will engage in hands-on experience analyzing, interpreting, and reporting data. Students will develop skills applying basic statistical tests to answer research questions.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY301 - Basic Counseling Techniques

Overview

Course Subject Code
PSY

Course Number
301

Course Title
Basic Counseling Techniques

Department
Humanities & Social Sciences

Course Description
Basic counseling and interpersonal skills, including reflective listening, expressing empathy, questioning, and confrontation are taught. Complex skills such as goal setting, documentation, suicide/homicide crisis intervention, and handling client noncompliance. Laboratory employs CD-ROM and role playing formats.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY307 - Seminar

Overview

Course Subject Code
PSY

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY308 - Psychology of Eating

Overview

Course Subject Code
PSY

Course Number
308

Course Title
Psychology of Eating

Department
Humanities & Social Sciences

Course Description
Exploration of eating behavior. Psychological, social, and physiological factors will be examined. Application of empirical data to real world experiences. Typical, healthy, and disordered eating behaviors will be considered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY311 - Human Growth & Dev I

Overview

Course Subject Code
PSY

Course Number
311

Course Title
Human Growth & Dev I

Department
Humanities & Social Sciences

Course Description
A biopsychosocial study of human development from pre-conception through middle childhood. Discusses the biological, psychological, and social processes affecting the developing child. Applications to health care, family, community, and education are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY312 - Human Growth & Dev II

Overview

Course Subject Code
PSY

Course Number
312

Course Title
Human Growth & Dev II

Department
Humanities & Social Sciences

Course Description
A biopsychosocial study of the continuing development of the human being from adolescence through old age and death. Discusses the biological, psychological, and social processes relevant to this developmental time span. Applications to health care, family, community, and education are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY313 - Psych Research Methods I

Overview

Course Subject Code
PSY

Course Number
313

Course Title
Psych Research Methods I

Department
Humanities & Social Sciences

Course Description
Overview of the techniques of research in psychology. Emphasis is placed on techniques of quantitative research, including experimental, quasi-experimental, field, and survey research methods. Students are engaged in developing an APA research proposal based on current psychological literature.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY314 - Psych Research Methods II

Overview

Course Subject Code
PSY

Course Number
314

Course Title
Psych Research Methods II

Department
Humanities & Social Sciences

Course Description
An in-depth look at advanced research methodology, including complex research design. Students gain experience with research projects by collecting data, analyzing, writing an APA style manuscript, and presenting a conference-style poster.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY317 - Field & Career Preparation

Overview

Course Subject Code
PSY

Course Number
317

Course Title
Field & Career Preparation

Department
Humanities & Social Sciences

Course Description
Exploration of careers related to the field of psychology. Processes and skills needed for career search and placement. Externship process and opportunities will be discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY330 - Social Psychology I

Overview

Course Subject Code
PSY

Course Number
330

Course Title
Social Psychology I

Department
Humanities & Social Sciences

Course Description
Surveys behavior and experience in a social context. Topics include the self in the social world, attribution, social cognition, affiliation, and romantic relationships. Theory, research, and application discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

PSY331 - Social Psychology II

Overview

Course Subject Code
PSY

Course Number
331

Course Title
Social Psychology II

Department
Humanities & Social Sciences

Course Description
Surveys behavior and experience in a social context. Topics include social influence, attitudes and persuasion, aggression, group dynamics, altruism, and stereotyping/prejudice/discrimination. Theory, research, and application discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY334 - Behavior Modification I

Overview

Course Subject Code
PSY

Course Number
334

Course Title
Behavior Modification I

Department
Humanities & Social Sciences

Course Description
Measurement of behavior and key concepts of operant learning are covered, e.g., reinforcement, extinction,
punishment, stimulus control and shaping, among others. Laboratory exercises are interactive computer
simulations of these concepts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY335 - Behavior Modification II

Overview

Course Subject Code
PSY

Course Number
335

Course Title
Behavior Modification II

Department
Humanities & Social Sciences

Course Description
Key concepts of operant and respondent behavior, includes motivating operations, verbal behavior, differentialreinforcement; applications to behavior change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY339 - Biopsychology

Overview

Course Subject Code
PSY

Course Number
339

Course Title
Biopsychology

Department
Humanities & Social Sciences

Course Description
Anatomical and physiological basis of behavior patterns presented from genetic, developmental, evolutionary and functional evidence. Discussions of mind-body relationships, senses, sleep, motor activity, emotions, and reproduction.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY347 - Organizational Behavior

Overview

Course Subject Code
PSY

Course Number
347

Course Title
Organizational Behavior

Department
Humanities & Social Sciences

Course Description
Psychology applied to business organization and operations as they affect employees, customers, and the community with particular interest on group processes.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

PSY348P - Organizational Behavior

Overview

Course Subject Code
PSY

Course Number
348P

Course Title
Organizational Behavior

Department
METR

Academic Level (Course Level)
Undergraduate

College/School
General Studies

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Pre-Requisites

No Requirements

PSY355 - Evolutionary Psychology

Overview

Course Subject Code
PSY

Course Number
355

Course Title
Evolutionary Psychology

Department
Humanities & Social Sciences

Course Description
Examination of biological determinants underlying human behavior. Discusses family relations, aggression, crime, mating and other social aspects with regard to adaptation and fitness.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY360 - Organizational Psych

Overview

Course Subject Code
PSY

Course Number
360

Course Title
Organizational Psych

Department
Humanities & Social Sciences

Course Description
Psychology applied to human relations problems in the work world. Specific topics include job satisfaction, motivation, leadership, attitudes and effects of stress on employees and job performance.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY361 - Industrial Psychology

Overview

Course Subject Code
PSY

Course Number
361

Course Title
Industrial Psychology

Department
Humanities & Social Sciences

Course Description
Application of psychological principles, theories, and behavioral techniques applied to human relations, problems in industrial situations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY364 - Environmental Psychology

Overview

Course Subject Code
PSY

Course Number
364

Course Title
Environmental Psychology

Department
Humanities & Social Sciences

Course Description
An interdisciplinary look into the human-environment interaction in regards to sustainability, conservation, and the natural and built environments. Students will apply psychological theory to understand the role of human behavior, attitudes, policy, and ethics in sustainability and conservation efforts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY371 - Human Sexuality I

Overview

Course Subject Code
PSY

Course Number
371

Course Title
Human Sexuality I

Department
Humanities & Social Sciences

Course Description
Social, cultural, psychological and physiological influences on human sexuality are examined. Topics include: theory and research, gender, anatomy and functioning, and human relationship components, including love and communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY372 - Human Sexuality II

Overview

Course Subject Code
PSY

Course Number
372

Course Title
Human Sexuality II

Department
Humanities & Social Sciences

Course Description
Social, cultural, psychological, and physiological influences on human sexuality are examined. Topics include: sexual orientation, pregnancy, contraceptive practices, sexual dysfunctions, sexually transmitted infections, paraphilias, sexual assault, media images, the sale of sex.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY376 - Foundations of Sport Psy.

Overview

Course Subject Code
PSY

Course Number
376

Course Title
Foundations of Sport Psy.

Department
Humanities & Social Sciences

Course Description
Introduction to the foundations of psychology in the sport and physical activity domain. Focus will be on current theories, empirical research, and practices in the field of sport and exercise psychology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY401 - Adv Counseling Techniques

Overview

Course Subject Code
PSY

Course Number
401

Course Title
Adv Counseling Techniques

Department
Humanities & Social Sciences

Course Description
Major schools of psychotherapy are discussed. Students practice related techniques in the laboratory following demonstration and instruction. Group therapy techniques are emphasized with associated laboratory work using interactive CD-ROM, group therapy videotapes, and a Web site corresponding to readings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY407 - Seminar

Overview

Course Subject Code
PSY

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY410 - Organiz Change/Develop

Overview

Course Subject Code
PSY

Course Number
410

Course Title
Organiz Change/Develop

Department
Humanities & Social Sciences

Course Description
Theories and processes necessary to understand and implement change within organizations. Focuses on impact of technological change in organizations and on skill development in planning, implementing, and evaluating change.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY416 - Abnorm Behav Children & Adol

Overview

Course Subject Code
PSY

Course Number
416

Course Title
Abnorm Behav Children & Adol

Department
Humanities & Social Sciences

Course Description
Highlights differences between children and adults in their expression of emotional and interpersonal problems. Language/learning disabilities, problems of attention deficit, school refusal and separation anxiety, depression, and eating. Description of symptoms and treatments are emphasized.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY420 - Applied Psych Extern

Overview

Course Subject Code
PSY

Course Number
420

Course Title
Applied Psych Extern

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term). Opportunities to work under supervision in applied settings related to student's emphasis. Students gain experience working with mandated clients, patients in health care settings, or businesses. Prerequisites: Approval of the externship coordinator and 120 hours of college credit.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
16

Credit Hours
Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
16

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY421 - Senior Project I

Overview

Course Subject Code
PSY

Course Number
421

Course Title
Senior Project I

Department
Humanities & Social Sciences

Course Description
First term of a three-term comprehensive project in applied psychology. Focus on refining a research project, literature review, and formulation of research question.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, SR GR Capstone Project COOP, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY422 - Sr Project II

Overview

Course Subject Code
PSY

Course Number
422

Course Title
Sr Project II

Department
Humanities & Social Sciences

Course Description
Second term of a three-term comprehensive project in applied psychology. Focus on development of research methodology and pilot testing of project.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, SR GR Capstone Project COOP, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY423 - Sr Project III

Overview

Course Subject Code
PSY

Course Number
423

Course Title
Sr Project III

Department
Humanities & Social Sciences

Course Description
Third term of a three-term comprehensive project in applied psychology. Focus on data collection, writing of research report and oral presentation of project.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, SR GR Capstone Project COOP, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY425 - Motivational Interviewing

Overview

Course Subject Code
PSY

Course Number
425

Course Title
Motivational Interviewing

Department
Humanities & Social Sciences

Course Description
Motivational interviewing is a highly effective (evidenced based) approach to enhance behavior change in psychotherapy, substance abuse counseling, dentistry, education, various medical professions and business. This course will overview the theory, process, skills and implementation of motivational interviewing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY434 - Adv Behavior Modification I

Overview

Course Subject Code
PSY

Course Number
434

Course Title
Adv Behavior Modification I

Department
Humanities & Social Sciences

Course Description
Behavioral assessment including identifying and selecting target behaviors; methods of assessment including preferenceassessments, skills-based assessments and functional analysis, data collection and interpretation; assessment-basedselection of intervention; ethical and practical issues associated with assessment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY435 - Adv Behavior Modification II

Overview

Course Subject Code
PSY

Course Number
435

Course Title
Adv Behavior Modification II

Department
Humanities & Social Sciences

Course Description
Applications of principles and techniques of Applied Behavior Analysis to behavior change,behavioral interventions, behavior change systems, and specific behavior change procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY436 - Ethics for ABA

Overview

Course Subject Code
PSY

Course Number
436

Course Title
Ethics for ABA

Department
Humanities & Social Sciences

Course Description
Ethical and professional issues in applied behavior analysis with emphasis on EthicsCode and applications in human services.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Humanities General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY445 - OR Tech Relationship Bldg Prog

Overview

Course Subject Code
PSY

Course Number
445

Course Title
OR Tech Relationship Bldg Prog

Department
Humanities & Social Sciences

Course Description
This course will provide an orientation to and ongoing training for family mentors in the Oregon Tech Relationship Building Program. Program related projects will be assigned based on number of credits (1-3) selected. This course can be repeated for credit.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
3

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY447 - Well-Being Program

Overview

Course Subject Code
PSY

Course Number
447

Course Title
Well-Being Program

Department
Humanities & Social Sciences

Course Description
This course entails training to become a Well-Being Coach and provide psychoeducation on life skills to participants referred by the Department of Human Services, Self-Sufficiency.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
17

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY455 - Cognitive Psychology

Overview

Course Subject Code
PSY

Course Number
455

Course Title
Cognitive Psychology

Department
Humanities & Social Sciences

Course Description
The scientific study of mental process and how the mind works (or fails to work). Topics include memory, knowing, decision-making, attention, morality, and theories of mind. Students will debate current topics in the field and learn practical applications for cognitive research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY456 - Performance Management

Overview

Course Subject Code
PSY

Course Number
456

Course Title
Performance Management

Department
Humanities & Social Sciences

Course Description
Application of principles and techniques Applied Behavior Analysis to change behavior, focus onimplementation, management, and supervision of behavior change programs and systems in business,industry, and human services; methods of behavior analytic personnel supervision and management.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY465 - Ecuador Study Abroad

Overview

Course Subject Code
PSY

Course Number
465

Course Title
Ecuador Study Abroad

Department
Humanities & Social Sciences

Course Description
This course entails participating in a study abroad program in Cuenca Ecuador where students will work in multiple facilities that serve at-risk infants, children, youth, and adults. You will also learn about the history, politics, food, architecture, religions, culture, social services system, and nature of Ecuador through weekly excursions around the country. Instructor permission required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
8

Contact Hours

Contact Hours
Min
24

Billing Hours

Billing Hours
Min
8

Lecture Hours

Lecture Hours
Min
0

Lab Hours

Lab Hours Min
24

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY475 - Capstone in Applied Psychology

Overview

Course Subject Code
PSY

Course Number
475

Course Title
Capstone in Applied Psychology

Department
Humanities & Social Sciences

Course Description
Provides students the opportunity to synthesize material learned throughout the degree program, create innovative projects, and evaluate new ideas related to higher level topics in applied psychology. Topics vary by term. May be repeated for credit. Senior standing or instructor approval required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY485 - Education Assistantship

Overview

Course Subject Code
PSY

Course Number
485

Course Title
Education Assistantship

Department
Humanities & Social Sciences

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY497 - Special Projects/Training

Overview

Course Subject Code
PSY

Course Number
497

Course Title
Special Projects/Training

Department
Humanities & Social Sciences

Course Description
Students may enroll for credit in special programs, leading to the development ofspecialized skills. Programs may include training to work with special populations. Maybe repeated for credit. Instructor consent required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
12

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY499 - Independent Study

Overview

Course Subject Code
PSY

Course Number
499

Course Title
Independent Study

Department
Humanities & Social Sciences

Course Description
Intensive self-study of a topic in psychology of the student's choosing. Study guided by any professor in the Applied Psychology program. May be repeated, with different topics, up to three times. Senior standing in Applied Psychology and permission of HSS department chair required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
6

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY500 - Life Span Development

Overview

Course Subject Code
PSY

Course Number
500

Course Title
Life Span Development

Department
Humanities & Social Sciences

Course Description
Study of principles of human development with emphasis on the contributions of biological, social, psychological, and multicultural influences as applied to an understanding of cognitive, emotional, social, and physical development across the lifespan.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY505 - Law, Ethics, & Prof Develop

Overview

Course Subject Code
PSY

Course Number
505

Course Title
Law, Ethics, & Prof Develop

Department
Humanities & Social Sciences

Course Description
Examines all aspects of therapy that involve statutes, regulations, principles, values and ethics of Marriage and Family Therapists with a special emphasis on the legal and ethical considerations of marriage and family therapy.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY507 - Seminar

Overview

Course Subject Code
PSY

Course Number
507

Course Title
Seminar

Department
Humanities & Social Sciences

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Seminar

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PSY512 - Systems Theory

Overview

Course Subject Code
PSY

Course Number
512

Course Title
Systems Theory

Department
Humanities & Social Sciences

Course Description
In-depth analysis of Systems Theory in family dynamics. Emphasis placed on structural, strategic, and solution focused applications to counseling.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY513 - Couples Theory

Overview

Course Subject Code
PSY

Course Number
513

Course Title
Couples Theory

Department
Humanities & Social Sciences

Course Description
Overview of the fundamental theoretical foundations of couple's therapy, including systemic, communication, interactional theories of behavior as it relates to couples.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

Course Title
Indiv Counseling Techniques II

Department
Humanities & Social Sciences

Course Description
Advanced evidence-based counseling interventions including application of interventions from the primary schools of psychotherapy including cognitive-behavioral, systems theory, and humanistic.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY522 - Indiv Counseling Techniques II

Overview

Course Subject Code
PSY

Course Number
522

PSY525 - Family Therapy I

Overview

Course Subject Code
PSY

Course Number
525

Course Title
Family Therapy I

Department
Humanities & Social Sciences

Course Description
Examines theories and techniques of family therapy including various models of family therapy. This course will offer opportunities for practice of the techniques through role playing and review of therapy sessions.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY526 - Couples Therapy

Overview

Course Subject Code
PSY

Course Number
526

Course Title
Couples Therapy

Department
Humanities & Social Sciences

Course Description
Examines issues related to therapeutic theories and treatment strategies with couples, including marriage, partnership, divorce, parenting and remarriage.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY530 - Research Methods

Overview

Course Subject Code
PSY

Course Number
530

Course Title
Research Methods

Department
Humanities & Social Sciences

Course Description
Fundamentals of methods for conducting research including experimental designs and non-experimental designs. Includes program evaluation, clinical studies, ethics, and statistical analysis. Emphasis on ability to critically evaluate research studies and provide a foundation for conducting research. Prerequisite: Undergraduate statistics class with grade "C" or better

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY535 - Treating Diverse Populations

Overview

Course Subject Code
PSY

Course Number
535

Course Title
Treating Diverse Populations

Department
Humanities & Social Sciences

Course Description
Examines the cultural contexts of relationships, issues, trends in a diverse society, including culture, ethnicity, nationality, age, gender, sexual orientation, spirituality, religion, larger system and social context. Strengths and limitations of models of treatment as they related to different cultural, economic and ethnic groups.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours

Min

3

Billing Hours

Billing Hours

Min

3

Lecture Hours

Lecture Hours

Min

3

Number Of Repeats

3

Pre-Requisites

No Requirements

PSY565 - Group Counseling

Overview

Course Subject Code
PSY

Course Number
565

Course Title
Group Counseling

Department
Humanities & Social Sciences

Course Description
Theoretical understanding of group dynamics and group process. Evidenced based group interventions for psychoeducational and process groups.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours

Min

3

Contact Hours

Contact Hours

Min

3

Billing Hours

Billing Hours

Min

3

Lecture Hours

Lecture Hours

Min

3

Number Of Repeats

3

Pre-Requisites

No Requirements

PSY566 - Child & Adolescent Therapy

Overview

Course Subject Code
PSY

Course Number
566

Course Title
Child & Adolescent Therapy

Department
Humanities & Social Sciences

Course Description
Specific emphasis on treatment of children and adolescents. Course materials will cover a variety of childhood disorders and evidence-based interventions including individual and family interventions.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours

Min

3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PSY575 - Treatment of Substance Abuse

Overview

Course Subject Code
PSY

Course Number
575

Course Title
Treatment of Substance Abuse

Department
Humanities & Social Sciences

Course Description
Overview of assessment and treatment of substance disorders including cognitive behavioral, group and family interventions.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT600 - Intro to PT Profession

Overview

Course Subject Code
PT

Course Number
600

Course Title
Intro to PT Profession

Department
Health Sciences

Course Description
Introduction to PT is an overview of the profession and practice of physical therapy including the latest topics and trends surrounding the industry. The course goes on to cover the practice of physical therapy: detailing the functions, disorders, and therapies of the major organ systems to give students the complete foundation they need to successfully grow their professional knowledge and skills.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

PT605 - Clinical Human Anatomy

Overview

Course Subject Code
PT

Course Number
605

Course Title
Clinical Human Anatomy

Department
Health Sciences

Course Description
Study of human anatomy utilizing cadaver dissection to investigate, discriminate, and integrate anatomy within the human form. 3D relationships of structures, differentiation of textural differences, and advancement of palpation skills will be used to teach the student to be able to recognize, proper identify, and investigate both normal and abnormal anatomical structure and their variations as preparation for a career in the physical therapy.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Lecture/Lab, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
9

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
9

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
9

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT607 - Seminar

Overview

Course Subject Code
PT

Course Number
607

Course Title
Seminar

Department
Health Sciences

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum, Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
60

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
45

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PT610 - Nutrition and Wellness

Overview

Course Subject Code
PT

Course Number
610

Course Title
Nutrition and Wellness

Department
Health Sciences

Course Description
Students will actively learn to assess the health needs of individuals, groups and communities by promoting healthy lifestyles through the development of wellness program that address preventative medicine, nutrition and the benefits of exercise to a healthy lifestyle. Aspects of nutrition in healing and managing individuals with injury or disease is also addressed.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT615 - Foundations of PT Practice

Overview

Course Subject Code
PT

Course Number
615

Course Title
Foundations of PT Practice

Department
Health Sciences

Course Description
This course examines the processes of coordination, communication, and documentation that are critical to ensure that individuals receive appropriate, comprehensive, efficient, patient-centered, and high-quality health care services throughout the episode of care. Students explore the interprofessional roles and responsibilities of the health care team. This course highlights the importance of verbal, nonverbal, and written communication. Motivational interviewing will be discussed and practiced.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT620 - PT Examination Skills

Overview

Course Subject Code
PT

Course Number
620

Course Title
PT Examination Skills

Department
Health Sciences

Course Description
This course is an introduction to basic examination procedures in physical therapy including the Patient Interview (Subjective Exam), Systems Review, Posture and Movement Analysis, and Tests and Measures. Clinical reasoning for obtaining and interpretation of data collected will be utilized to develop hypotheses for physical therapy diagnoses and selecting the Tests and Measures needed to rule in or rule out your hypotheses. Finally, results of tests and measures will be interpreted to determine a plan of care.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
8

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
6

Number Of Repeats
3

PT625 - Assistive Device Training

Overview

Course Subject Code
PT

Course Number
625

Course Title
Assistive Device Training

Department
Health Sciences

Course Description
This course is designed to introduce the student to gait deviations and ambulation activities using assistive devices and guarding techniques. Wheelchair activities and assistive technology are also presented. This course begins to consider the rehabilitation population including the across the lifespan.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
2

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
2

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
1

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT630 - Social Determinants of Health

Overview

Course Subject Code
PT

Course Number
630

Course Title
Social Determinants of Health

Department
Health Sciences

Course Description
This course will provide an overview of the social determinants of health, health disparities, social epidemiology, social epidemiology research methods, and the linkages between social epidemiology and health policy. This course takes a “life course” approach with a focus the dynamic aspects of the relationship between social factors by age, period, and cohort.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT631 - Therapeutic Exercise I

Overview

Course Subject Code
PT

Course Number
631

Course Title
Therapeutic Exercise I

Department
Health Sciences

Course Description
This course provides a foundation of knowledge and skills used to manage musculoskeletal problems using appropriate principles and techniques and present an overview of the scope of therapeutic exercise interventions used in physical therapy practice. Students will learn how to integrate therapeutic exercise with other therapeutic modalities.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT632 - Therapeutic Exercise II

Overview

Course Subject Code
PT

Course Number
632

Course Title
Therapeutic Exercise II

Department
Health Sciences

Course Description
This course is a progression of PT 631 designed to develop advanced competencies in therapeutic exercise. Students will perform techniques related to spinal stabilization, movement impairments, soft tissue and joint mobilization, muscle energy, proprioceptive neuromuscular facilitation, proprioceptive/vestibular systems and other advanced techniques.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT635 - Human Physiology

Overview

Course Subject Code
PT

Course Number
635

Course Title
Human Physiology

Department
Health Sciences

Course Description
In this course, students learn to recognize and to apply the basic concepts that govern integrated body function in the body's organ systems. The general goal of this course is to understand and appreciate how the various organ systems work in the human body to sustain life.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

PT640 - Biomec Kinematics Human Motion

Overview

Course Subject Code
PT

Course Number
640

Course Title
Biomec Kinematics Human Motion

Department
Health Sciences

Course Description
The course will cover how to describe motion and how to analyze human motion. Emphasis will be put on the description of the design and function of joints and muscles and pathokinesiology of movements. Principles of mechanics will be applied to human movement.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT641 - Mgmt of Musculoskeletal Dys I

Overview

Course Subject Code
PT

Course Number
641

Course Title
Mgmt of Musculoskeletal Dys I

Department
Health Sciences

Course Description
This is the first course within a two-course sequence focusing on musculoskeletal physical therapy. This course is designed to provide the student with knowledge of the pathology and pathomechanics of musculoskeletal dysfunction from disease, trauma, disuse and the aging process, in the extremities of the human body.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT645 - Prin of Evidence-Informed Prac

Overview

Course Subject Code
PT

Course Number
645

Course Title
Prin of Evidence-Informed Prac

Department
Health Sciences

Course Description
This course educates DPT students to be critical consumers of the medical literature, integrate evidence, clinical expertise and patient preferences, and promote lifelong learners who consistently read the medical literature to stay current with the changing professional body of knowledge.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
2

Lab Hours

Lab Hours Min
1

Number Of Repeats
3

PT650 - Therapeutic Modalities

Overview

Course Subject Code
PT

Course Number
650

Course Title
Therapeutic Modalities

Department
Health Sciences

Course Description
This course explores and integrates the basic principles heat, cold, massage, compression, and electrotherapeutic techniques in the management of patients with impairments and functional limitations due to a variety of orthopedic, neurological, and medical conditions.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT655 - Pathophysiology

Overview

Course Subject Code
PT

Course Number
655

Course Title
Pathophysiology

Department
Health Sciences

Course Description
Study of dynamic aspects of disease process with emphasis on abnormal physiology. 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.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT660 - Motor Cont & Learn Across Life

Overview

Course Subject Code
PT

Course Number
660

Course Title
Motor Cont & Learn Across Life

Department
Health Sciences

Course Description
A study of basic principles of motor learning and motor control as they relate to human voluntary movement. Applications of principles through observations and assessment of motor behavior, from learning to performance, as well as motor development, throughout the lifespan.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
1

Number Of Repeats
3

PT665 - Clinical Neuroscience

Overview

Course Subject Code
PT

Course Number
665

Course Title
Clinical Neuroscience

Department
Health Sciences

Course Description
This course is designed to prepare the physical therapy student to apply basic neuroanatomy and neurophysiology to patient populations.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
1

Number Of Repeats
3

PT670 - Exercise Physiology

Overview

Course Subject Code
PT

Course Number
670

Course Title
Exercise Physiology

Department
Health Sciences

Course Description
The objective of this course is for the student to gain an understanding and working knowledge of how the body responds to exercise so that they may apply this knowledge to the field of physical therapy. Application of testing procedures for treatment planning are addressed.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT675 - Clinical Reason & Decision Mak

Overview

Course Subject Code
PT

Course Number
675

Course Title
Clinical Reason & Decision Mak

Department
Health Sciences

Course Description
Clinical reasoning is a complex, nonlinear problem–solving process that is influenced by models of practice. This course will examine the types of clinical reasoning strategies physical therapist students engage in during a patient encounter.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours Min
2

Billing Hours

Billing Hours Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT680 - Ethics in Health Professions

Overview

Course Subject Code
PT

Course Number
680

Course Title
Ethics in Health Professions

Department
Health Sciences

Course Description
Applied ethics course that focuses on examining ethical issues common to the health professions, such as privacy, confidentiality, social responsibility, and whistleblowing. Also examine ethical perspectives on human rights, ethical theory and principles for analyzing and acting on ethical problems.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT700 - Mgmt Cardio/Pulmon Dysfunction

Overview

Course Subject Code
PT

Course Number
700

Course Title
Mgmt Cardio/Pulmon Dysfunction

Department
Health Sciences

Course Description
This course will focus on the examination, evaluation, and treatment of patients with primary cardiac, vascular, and pulmonary disorders. Students will be able to make fundamental clinical treatment decisions, incorporating evidence from disease risk factors, cardiovascular and pulmonary pathophysiology, medical diagnostics, and pharmacology.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT705 - Mgmt Integumentary Dysfunction

Overview

Course Subject Code
PT

Course Number
705

Course Title
Mgmt Integumentary Dysfunction

Department
Health Sciences

Course Description
This course will focus on the examination and interventions of patients with integument disorders. Emphasis is placed on examination and intervention of patients with integument disorders. Individual patient problems will be used to reinforce clinical decision-making skills.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1.5

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1.5

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT707 - Seminar

Overview

Course Subject Code
PT

Course Number
707

Course Title
Seminar

Department
Health Sciences

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum, Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
60

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
45

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

PT710 - Medical Imaging for PT

Overview

Course Subject Code
PT

Course Number
710

Course Title
Medical Imaging for PT

Department
Health Sciences

Course Description
This course will focus on the examination and interventions of patients with integument disorders. Emphasis is placed on examination and intervention of patients with integument disorders. Individual patient problems will be used to reinforce clinical decision-making skills.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT715 - Teaching and Learning

Overview

Course Subject Code
PT

Course Number
715

Course Title
Teaching and Learning

Department
Health Sciences

Course Description
This course is designed to provide information on teaching methods and learning styles, planning of learning experiences, and teaching tools and strategies. This course will also address the effects age and culture on learning styles to enable the learner to have a successful learning experience.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT720 - Clin Rsrch Meth & Biostatistic

Overview

Course Subject Code
PT

Course Number
720

Course Title
Clin Rsrch Meth & Biostatistic

Department
Health Sciences

Course Description
The various types of healthcare research will be discussed including qualitative, quantitative, and mixed methods. Topics will include common methods of statistical analyses used in evidence-based practice. Students will complete and present a literature review.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
1

Number Of Repeats
3

PT721 - Clinical Experience I

Overview

Course Subject Code
PT

Course Number
721

Course Title
Clinical Experience I

Department
Health Sciences

Course Description
Eight weeks of fulltime clinical education experience under direct supervision of a Clinical Instructor to introduce students to the roles and responsibilities of the physical therapist including: documentation, billing, hands-on skills development, beginning to manage a caseload of non-complex patients, interact with patients and patient's families, and participate in the interprofessional team.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
9

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
9

Billing Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course PT732
Type
Prerequisite

Complete ALL of the following Courses:
- PT732 - Mgmt of Neuro Dysfunction II

Additional Comments:

Completed Course PT775
Type
Prerequisite

Complete ALL of the following Courses:
- PT775 - PT in Rural Communities

Additional Comments:

Completed Course PT693
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

Completed Course PT700
Type
Prerequisite

Complete ALL of the following Courses:
- PT700 - Mgmt Cardio/Pulmon Dysfunction

Additional Comments:

Completed Course PT741
Type
Prerequisite

Complete ALL of the following Courses:
- PT741 - Mgt Musculoskeletal Dysfunc II

Additional Comments:

Completed Course PT710
Type
Prerequisite

Complete ALL of the following Courses:
- PT710 - Medical Imaging for PT

Additional Comments:

PT722 - Clinical Experience II

Overview

Course Subject Code
PT

Course Number
722

Course Title
Clinical Experience II

Department
Health Sciences

Course Description
Ten weeks of full-time clinical education emphasizing increasing independence with examination, evaluation, development of plan of care and management of diverse patients while becoming an integral member of the healthcare team and using self-assessment for professional development.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
10

Billing Hours

Billing Hours
Min
10

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course PT745
Type
Prerequisite

Complete ALL of the following Courses:
- PT745 - Differential Diagnosis

Additional Comments:

Completed Course PT752
Type
Prerequisite

Complete ALL of the following Courses:
- PT752 - Capstone Project II

Additional Comments:

Completed Course PT715
Type
Prerequisite

Complete ALL of the following Courses:
- PT715 - Teaching and Learning

Additional Comments:

Completed Course PT755
Type
Prerequisite

Complete ALL of the following Courses:
- PT755 - Geriatric Physical Therapy

Additional Comments:

Completed Course PT750
Type
Prerequisite

Complete ALL of the following Courses:
- PT750 - Pediatric Physical Therapy

Additional Comments:

PT723 - Clinical Experience III

Overview

Course Subject Code
PT

Course Number
723

Course Title
Clinical Experience III

Department
Health Sciences

Course Description
Ten weeks of fulltime clinical education experience emphasizing increasing independence with management of patients across the lifetime and continuum of care with further development of professional identity formation and functioning as an entry-level clinician within the profession and healthcare system.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
10

Billing Hours

Billing Hours
Min
10

Number Of Repeats
1

Pre-Requisites

Simple Requisites

Completed Course PT770
Type
Prerequisite

Complete ALL of the following Courses:
- PT770 - Leadership & Professional Dev

Additional Comments:

Completed Course PT753
Type
Prerequisite

Complete ALL of the following Courses:
- PT753 - Capstone Project III

Additional Comments:

Completed Course PT765
Type
Prerequisite

Complete ALL of the following Courses:
- PT765 - Clinical Administr & Marketing

Additional Comments:

Completed Course PT780
Type
Prerequisite

Complete ALL of the following Courses:
- PT780 - Management of Complex Patients

Additional Comments:

Completed Course PT779
Type
Prerequisite

Complete ALL of the following Courses:
- PT779 - Special Topics

Additional Comments:

PT724 - Clinical Experience IV

Overview

Course Subject Code
PT

Course Number
724

Course Title
Clinical Experience IV

Department
Health Sciences

Course Description
Ten weeks of fulltime clinical education experience emphasizing function as an independent entry-level clinician treating patients across the lifespan and continuum of care in general and specialized areas of practice.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
10

Billing Hours

Billing Hours
Min
10

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course PT723
Type
Prerequisite

Complete ALL of the following Courses:
- PT723 - Clinical Experience III

Additional Comments:

PT725 - Physical Therapy Pharmacology

Overview

Course Subject Code
PT

Course Number
725

Course Title
Physical Therapy Pharmacology

Department
Health Sciences

Course Description
This course will present the primary drug classes and the physiologic basis of their action. This course will likewise address how drug therapy interacts with physical therapy, and how drugs can exert beneficial effects as well as adverse side effects that impact on rehabilitation.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT730 - Integrated Clinical Experience

Overview

Course Subject Code
PT

Course Number
730

Course Title
Integrated Clinical Experience

Department
Health Sciences

Course Description
Part-time clinical education experience with emphasis on applying previously gained knowledge to a new clinical setting and engaging in advanced clinical problem solving using the collaborative model of clinical education. Students will engage care planning with an interprofessional team.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Billing Hours

Billing Hours
Min
3

Number Of Repeats
3

PT731 - Mgt Neurological Dysfunction I

Overview

Course Subject Code
PT

Course Number
731

Course Title
Mgt Neurological Dysfunction I

Department
Health Sciences

Course Description
This course prepares students to begin to manage patients with neuromuscular dysfunction. Students will develop the skills to determine movement dysfunction leading to functional limitation and will learn to identify underlying impairments that lead to functional limitations for a variety of patients across the lifespan with neuromuscular dysfunction.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT732 - Mgmt of Neuro Dysfunction II

Overview

Course Subject Code
PT

Course Number
732

Course Title
Mgmt of Neuro Dysfunction II

Department
Health Sciences

Course Description
This course prepares the student to effectively manage adult patients with specific neuromuscular diagnoses. Students will incorporate analysis of movement and identification of underlying impairments that lead to functional limitations for a variety of patients with specific medical diagnosis.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT735 - Bus, Legal, & Regulatory Issue

Overview

Course Subject Code
PT

Course Number
735

Course Title
Bus, Legal, & Regulatory Issue

Department
Health Sciences

Course Description
This course will explore the current legal and regulatory issues affecting the health care industry.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT740 - Acute Care in Physical Therapy

Overview

Course Subject Code
PT

Course Number
740

Course Title
Acute Care in Physical Therapy

Department
Health Sciences

Course Description
This course will cover the PT's role in acute care, including management of the medically complex patient, as well as general physical therapy assessment and management in the acute care setting.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT741 - Mgt Musculoskeletal Dysfunc II

Overview

Course Subject Code
PT

Course Number
741

Course Title
Mgt Musculoskeletal Dysfunc II

Department
Health Sciences

Course Description
This course is designed to provide the student with knowledge of the pathology, examination, and intervention of musculoskeletal dysfunction from disease, trauma, disuse and the aging process, in the spine of the human body.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT745 - Differential Diagnosis

Overview

Course Subject Code
PT

Course Number
745

Course Title
Differential Diagnosis

Department
Health Sciences

Course Description
The primary goal of this course is to prepare students to recognize client problems that are non-neuromusculoskeletal and beyond the expertise of a physical therapist, and to then make the appropriate decision regarding the next step of referral. Students will develop proficiency in: systems screening, differential interviewing strategies, risk factors and red flag recognition.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT750 - Pediatric Physical Therapy

Overview

Course Subject Code
PT

Course Number
750

Course Title
Pediatric Physical Therapy

Department
Health Sciences

Course Description
This course prepares students to examine, evaluate and provide physical therapy intervention for children with disabilities and special health care needs. Foundational knowledge in development and abnormal development, motor control and motor learning provides the basis for describing impairments of body function and structure and the physical therapy management of activity and limitations common in selected neurological and musculoskeletal pediatric diagnoses.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT751 - Capstone Project I

Overview

Course Subject Code
PT

Course Number
751

Course Title
Capstone Project I

Department
Health Sciences

Course Description
This is the first in a series of three courses. The purpose of the Capstone courses are to provide hands-on, clinically-driven learning opportunities for DPT students which applies learning on Health Informatics and/or Evidence-informed Practice, to answer a systematic question for practice in physical therapy. Projects can include an examination of clinical or systematically gathered data to answer a clinical or community driven project. Students will disseminate the results of their projects at the end of the course series at an appropriate venue.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Externship/Practicum

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
2

Billing Hours

Billing Hours Min
2

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course PT721
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:

- PT721 - Clinical Experience I

Additional Comments:

PT752 - Capstone Project II

Overview

Course Subject Code
PT

Course Number
752

Course Title
Capstone Project II

Department
Health Sciences

Course Description
This is the second in a series of three courses The purpose of the Capstone courses are to provide hands-on, clinically-driven learning opportunities for DPT students which applies learning on Health Informatics and/or Evidence-informed Practice, to answer a systematic question for practice in physical therapy. Projects can include an examination of clinical or systematically gathered data to answer a clinical or community driven project. Students will disseminate the results of their projects at the end of the course series at an appropriate venue.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
SR GR Capstone Project COOP, Independent Study

Grade Modes
Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Billing Hours

Billing Hours
Min
2

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course PT675
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- PT675 - Clinical Reason & Decision Mak

Additional Comments:

A minimum grade of 'D' in Course PT725
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- PT725 - Physical Therapy Pharmacology

Additional Comments:

A minimum grade of 'D' in Course PT735
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- PT735 - Bus, Legal, & Regulatory Issue

Additional Comments:

A minimum grade of 'D' in Course PT705
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- PT705 - Mgmt Integumentary Dysfunction

Additional Comments:

A minimum grade of 'D' in Course PT751
Type
Prerequisite

Earn a minimum grade (GR) of D in the following:
- PT751 - Capstone Project I

Additional Comments:

PT753 - Capstone Project III

Overview

Course Subject Code
PT

Course Number
753

Course Title
Capstone Project III

Department
Health Sciences

Course Description
This is the final in a series of three courses in an independent study that results in the completion of a Capstone project. Students implement their group service-learning project experiences to further develop project planning, marketing, and project development skills in order to improve the health of the local community.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Billing Hours

Billing Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT755 - Geriatric Physical Therapy

Overview

Course Subject Code
PT

Course Number
755

Course Title
Geriatric Physical Therapy

Department
Health Sciences

Course Description
This course provides in-depth and up to date information about geriatric physical therapy and covers implications and the physiology of age and lifestyle related decline. This course will focus on complex assessment and management of aging older adults.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT760 - Orthotics and Prosthetics

Overview

Course Subject Code
PT

Course Number
760

Course Title
Orthotics and Prosthetics

Department
Health Sciences

Course Description
Management of patients with upper and lower extremity conditions requiring orthotics and prosthetics will be emphasized. The basic components of the course include assessment and treatment of

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Course Description
Introduction to prosthetics and orthotics, basic procedures, types of prosthetics, fitting, exercise programs, gait analysis and gait training.

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2.5

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
1.5

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PT765 - Clinical Administr & Marketing

Overview

Course Subject Code
PT

Course Number
765

Course Title
Clinical Administr & Marketing

Department
Health Sciences

Course Description
This course will focus on administration, management, and marketing skills that are integral to the clinical practice of physical therapy.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

PT770 - Leadership & Professional Dev

Overview

Course Subject Code
PT

Course Number
770

Course Title
Leadership & Professional Dev

Department
Health Sciences

Course Description
This course will explore the concept and process of leadership in general and how it specifically applies to physical therapy.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT775 - PT in Rural Communities

Overview

Course Subject Code
PT

Course Number
775

Course Title
PT in Rural Communities

Department
Health Sciences

Course Description
Through classroom and part-time clinical experience, this course will increase awareness of the educational and healthcare issues facing rural areas. Barriers to access health care, social determinants of population health, and community health approaches will be discussed.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
1

Number Of Repeats
3

Pre-Requisites

No Requirements

PT779 - Special Topics

Overview

Course Subject Code
PT

Course Number
779

Course Title
Special Topics

Department
Health Sciences

Course Description
The purpose of this course is to prepare the physical therapy student with pertinent information and related special issues and conditions in physical therapy practice. Topics may include: sports rehabilitation, oncology, lymphedema, women's health, special populations, and home health.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

PT780 - Management of Complex Patients

Overview

Course Subject Code
PT

Course Number
780

Course Title
Management of Complex Patients

Department
Health Sciences

Course Description
This course will introduce the student to the assessment and management of complex patient cases across the lifespan and the continuum of care. An emphasis will be placed on clinical decision making related to the physical therapy management of individuals with multiple system involvement.

Academic Level (Course Level)
Professional Degree

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
2

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
4

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PWR101 - Intro to Professional Writing

Overview

Course Subject Code
PWR

Course Number
101

Course Title
Intro to Professional Writing

Department
Communication

Course Description
Introduction to the skills and tools necessary for a carrier in writing. Collaborative writing, editing, common genres, giving and receiving professional feedback. Exploration of scientific and technical, digital, and organizational writing to prepare students to choose a major track.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Pre-Requisites

No Requirements

PWR102 - Intro to Web Authoring

Overview

Course Subject Code
PWR

Course Number
102

Course Title
Intro to Web Authoring

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

PWR206 - Social Media

Overview

Course Subject Code
PWR

Course Number
206

Course Title
Social Media

Department
Communication

Course Description
Strategies for integrating social media and digital marketing as part of professional writing. Practical steps, techniques, and best practices geared toward integrating social media and digital programs into business, personal, and artistic communication.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Pre-Requisites

No Requirements

PWR215 - Writing in the Public Interest

Overview

Course Subject Code
PWR

Course Number
215

Course Title
Writing in the Public Interest

Department
Communication

Course Description
Emphasizes professional writing needs for nonprofit and community stakeholders. Focuses on analyzing particular rhetorical situations and using appropriate rhetorical strategies to produce multiple issue-focused documents in various genres. Culminates in professional portfolio for prospective client.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

PWR220 - Interaction Design

Overview

Course Subject Code
PWR

Course Number
220

Course Title
Interaction Design

Department
Communication

Course Description
Explores the design of the interaction between users and products, including visual, audio, and interactive media. Workshops focus on choosing appropriate format and delivery mechanisms using the five dimensions of interaction: words, visual representation, physical objects or space, time, and behavior.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

PWR306 - Writing for the Health Prof.

Overview

Course Subject Code
PWR

Course Number
306

Course Title
Writing for the Health Prof.

Department
Communication

Course Description
Emphasizes professional writing needs of health professionals. Focuses on analyzing particular rhetorical situations and using appropriate rhetorical strategies to produce multiple issue-focused documents in various genres. Culminates in simulated outreach project requiring transition of expert medical content for non-expert audiences.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

PWR320 - Content Strategy

Overview

Course Subject Code
PWR

Course Number
320

Course Title
Content Strategy

Department
Communication

Course Description
Advanced practice in documentation writing, information architecture and modular writing. Students will learn industry-standard writing practices and gain proficiency in content management and writing for re-use.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course

Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

PWR325 - Usability Testing

Overview

Course Subject Code
PWR

Course Number
325

Course Title
Usability Testing

Department
Communication

Course Description
Applied research methods for assessing information systems from a user-centered design perspective. Focus on usability testing and its various techniques, including think-aloud protocol, performance testing, lab and field testing, moderated and unmoderated testing, face-to-face and remote testing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

PWR330 - User Research

Overview

Course Subject Code
PWR

Course Number
330

Course Title
User Research

Department
Communication

Course Description
Applied research methods for developing interfaces, documents, and applications. Planning, testing, and revising a user experience. User analytics, field methods, interviewing, focus groups, usability testing, and other workplace practices for inquiry into users and audiences.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Completed Course
Type
Prerequisite

Complete ALL of the following Courses:

Additional Comments:

PWR355 - Project Management for Writers

Overview

Course Subject Code
PWR

Course Number
355

Course Title
Project Management for Writers

Department
Communication

Course Description
Focuses on project planning, management, and assessment for large-scale communication (print and electronic) projects. Introduces the theory and practices of audience-, organization-, and process-based approaches to content strategy.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

PWR426 - Design Thinking in TPC

Overview

Course Subject Code
PWR

Course Number
426

Course Title
Design Thinking in TPC

Department
Communication

Course Description
Employs design thinking methods and approach to solving problems in technical and professional communication (TPC). Focus on a creative, flexible and iterative process that fosters innovation through five stages: empathy, define, ideate, prototype, and test.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

Simple Requisites

Any of the following requirements
Type
Prerequisite

Fulfill ANY of the following requirements:

Complete ALL of the following Courses:
- WRI122 - Argumentative Writing (Inactive)

OR

Complete ALL of the following Courses:
- WRI227Z - Technical Writing

OR

Complete ALL of the following Courses:
- WRI227 - Technical Report Writing (Inactive)

OR

Complete ALL of the following Courses:
- WRI122Z - Composition II

Additional Comments:

PWR499 - Internship in Prof. Writing

Overview

Course Subject Code
PWR

Course Number
499

Course Title
Internship in Prof. Writing

Department
Communication

Course Description
Students work in applied settings in their emphasis and under the supervision of an on-site mentor. Regular contact with extern advisor required. Written externship reports required. Writing proficiency exam must be passed before starting internship.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Credit Hours
Max
9

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
1

Contact Hours
Max
9

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
9

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
1

Lecture Hours
Max
9

Lecture Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

PWR525 - Environmental Ethics

Overview

Course Subject Code
PWR

Course Number
525

Course Title
Environmental Ethics

Department
Humanities & Social Sciences

Course Description
Students will become familiar with Kant's moral theory, Utilitarianism, and Leopold's Land Ethic. Possible topics include: What is nature? Do we have a moral obligation to restore ecosystems? If we have moral obligations to nature, on what grounds?

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

RCP100 - Matriculation

Overview

Course Subject Code
RCP

Course Number
100

Course Title
Matriculation

Department
Health Sciences

Course Description
A study into the evidence-based and political pressures driving new developments in respiratory care. Considerations and planning for the students emerging role in health care. Online version tailored to degree completion students. Prerequisite: None.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP107 - Seminar

Overview

Course Subject Code
RCP

Course Number
107

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP120 - Interventions in Gas Exchange

Overview

Course Subject Code
RCP

Course Number
120

Course Title
Interventions in Gas Exchange

Department
Health Sciences

Course Description
An Introduction to the effects of ineffective breathing on carbon dioxide removal and oxygen delivery. Basic pulmonary mechanics are described. The vascular effects of hypoxemia are fully explored. Oxygen therapy and Continuous Positive Airway Pressure are introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP207 - Seminar

Overview

Course Subject Code
RCP

Course Number
207

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
15

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP223 - Emergent Chest Radio Interpret

Overview

Course Subject Code
RCP

Course Number
223

Course Title
Emergent Chest Radio Interpret

Department
Health Sciences

Course Description
The evaluation of the chest radiograph in the intensive care setting. Students learn to identify structures and fissures as well as the significance of silhouette sign, blunted costophrenic angles, air bronchograms and hyperlucency. The identification of pneumothorax, infiltrates and the correct placement of tubes is required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP231 - Pulmonary Physiology

Overview

Course Subject Code
RCP

Course Number
231

Course Title
Pulmonary Physiology

Department
Health Sciences

Course Description
Pulmonary physiology including the mechanics of ventilation, gas diffusion, acid-base regulation, oxygenation, and the physiologic advantage of structure. Gas laws and surface tension as applied to the understanding of clinical problems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP235 - Arterial Blood Gases

Overview

Course Subject Code
RCP

Course Number
235

Course Title
Arterial Blood Gases

Department
Health Sciences

Course Description
Chemistry and classification of acid-base balance including determination of compensation and pathophysiologic causes. Assessment of partial pressures of oxygen saturation, and total oxygen delivery.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP236 - Cardiopulmonary Dynamics

Overview

Course Subject Code
RCP

Course Number
236

Course Title
Cardiopulmonary Dynamics

Department
Health Sciences

Course Description
Exploration of pulmonary mechanics as measured by spirometry. Cardiovascular hemodynamics including cardiac electrophysiology, rhythm recognition and the measurement and interpretation of Systemic Vascular Resistance and Pulmonary Vascular Resistance, Central Venous Pressures, Pulmonary Artery and Pulmonary Capillary Wedge Pressures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP241 - Respiratory Gas Therapeutics

Overview

Course Subject Code
RCP

Course Number
241

Course Title
Respiratory Gas Therapeutics

Department
Health Sciences

Course Description
Physical and chemical applications of medical gases and humidity therapy to patient care. The transportation, regulation and dissemination of compressed gases. Clinical decision making strategies for oxygen titration. Prerequisite: Admission to Respiratory Care Program.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP252 - Cardiopulmonary Pharmacology

Overview

Course Subject Code
RCP

Course Number
252

Course Title
Cardiopulmonary Pharmacology

Department
Health Sciences

Course Description
A study of the administration, pharmacokinetics, administration and actions of medications. Emphasis is placed on bronchodilators, steroids, mucolytics and antileukotriene agents. Vasoactive, antiarrhythmics, diuretics, sedatives, antimicrobials and neuromuscular blocking agents are introduced.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP275 - Cardiopulmonary Diag/ Monitor

Overview

Course Subject Code
RCP

Course Number
275

Course Title
Cardiopulmonary Diag/Monitor

Department
AH

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Laboratory

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

RCP307 - Seminar

Overview

Course Subject Code
RCP

Course Number
307

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP326 - Preparednes, Ethics, and Ldshp

Overview

Course Subject Code
RCP

Course Number
326

Course Title
Preparednes, Ethics, and Ldshp

Department
Health Sciences

Course Description
Preparation for extreme natural and medical disasters, including the impact on facilities, patients, and staff during these events. Ethics in the profession including privacy and social responsibility. Exploration of leadership theory and practice, along with the impact in the healthcare environment. Students will be able to discuss ethical decision making, leadership practice, and managing through difficult situations.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP335 - Exercise Physiol and Education

Overview

Course Subject Code
RCP

Course Number
335

Course Title
Exercise Physiol and Education

Department
Health Sciences

Course Description
Introduction to the physiology of exercise, exercise in disease and health and stress testing. Concepts of age appropriate pulmonary rehabilitation and asthma education are described.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Contact Hours Operator
TO

Pre-Requisites

No Requirements

RCP336 - Hyperinflation Therapies

Overview

Course Subject Code
RCP

Course Number
336

Course Title
Hyperinflation Therapies

Department
Health Sciences

Course Description
Study and evidence-based application of PEEP, CPAP, bi-level ventilation, IPPB, and incentive spirometry. Flutter valve, PEP, high frequency chest wall oscillation and other methods of improving bronchial hygiene and lung volume. Acquisition and interpretation of the patient history, physical examination, auscultation, vital signs, laboratory data including arterial blood gases and dysrhythmia recognition. Collaborative activities include the acquisition, analysis and communication of findings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP337 - Pulmonary Pathology

Overview

Course Subject Code
RCP

Course Number
337

Course Title
Pulmonary Pathology

Department
Health Sciences

Course Description
Case-based approach to the understanding, evaluation and treatment of pulmonary disease. Recognition of obstructive and restrictive disease patterns as well as the classification of acid-base and oxygenation disorders. Classification, application and pharmacodynamics of common pulmonary medications are discussed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP345 - Cardiopulmonary Diag & Monitor

Overview

Course Subject Code
RCP

Course Number
345

Course Title
Cardiopulmonary Diag & Monitor

Department
Health Sciences

Course Description
Collaborative investigation, practicum calibration and interpretation of spirometry, body plethysmography, diffusion capacity helium dilution, seven minute nitrogen washout, cardiopulmonary stress testing, 12 lead ECG acquisition, dysrhythmia recognition, arterial blood gas instrumentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP350 - Introduction to Clinical

Overview

Course Subject Code
RCP

Course Number
350

Course Title
Introduction to Clinical

Department
Health Sciences

Course Description
Orientation to clinical practice in hospitals. Requires successful criminal background check, drug screening, completion of training in computer charting, and compliance with Health Insurance Portability and Accountability (HIPAA). Competence developed in the area of basic patient assessment, oxygen therapy, aerosol therapy and mechanical ventilation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
9

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
25

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
9

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
24

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP351 - Mechanical Ventilation I

Overview

Course Subject Code
RCP

Course Number
351

Course Title
Mechanical Ventilation I

Department
Health Sciences

Course Description
Study of an array of artificial airways. Includes laboratory practice in intubation, endotracheal suctioning and bag-mask-valve ventilation. Study and practice of mechanical ventilation circuits, classes of mechanical ventilators and modes.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP352 - Mechanical Ventilation II

Overview

Course Subject Code
RCP

Course Number
352

Course Title
Mechanical Ventilation II

Department
Health Sciences

Course Description
Description and analysis of adult patient mechanical ventilator system including the initiation, assessment, management and discontinuance.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP353 - Mechanical Ventilation III

Overview

Course Subject Code
RCP

Course Number
353

Course Title
Mechanical Ventilation III

Department
Health Sciences

Course Description
Advanced topics in mechanical ventilation including transport, dual modes, neonatal and pediatric mechanical ventilation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP366 - Clinical Simulation

Overview

Course Subject Code
RCP

Course Number
366

Course Title
Clinical Simulation

Department
Health Sciences

Course Description
The practice and measurement of critical thinking in the context of computer branching logic simulations. Students used organized sequential topical examinations to review and measure retention of respiratory care content. Passage of secure national review examination required.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP375 - Pediatric Care

Overview

Course Subject Code
RCP

Course Number
375

Course Title
Pediatric Care

Department
Health Sciences

Course Description
Fundamental care of pediatric patients with an emphasis in acute care medicine. A review of common diagnosis, conditions effecting respiratory status, and treatments seen in the pediatric population. Special procedures along with Trauma and Emergency room care will be reviewed.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Lecture, Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
6

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
3

Pre-Requisites

No Requirements

RCP386 - Critical Care I

Overview

Course Subject Code
RCP

Course Number
386

Course Title
Critical Care I

Department
Health Sciences

Course Description
Analysis and application of critical care techniques with an emphasis in cardiovascular management and assessment. Cardiovascular catheters and hemodynamics, advanced rhythm recognition, and the essentials of advanced cardiac life support.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP387 - Critical Care II

Overview

Course Subject Code
RCP

Course Number
387

Course Title
Critical Care II

Department
Health Sciences

Course Description
Advanced techniques during intubation. Assessment of the difficult airway including Mallampati classification and thyromental distance. Continued practice and an extension of hemodynamic, pharmacology and imaging knowledge. Students practice anticipating care based on nutritional status.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

Simple Requisites

A minimum grade of 'D' in Course RCP241
Type
Prerequisite

Earn a minimum grade (UG) of D in the following:
- RCP241 - Respiratory Gas Therapeutics

Additional Comments:

RCP388 - Adv Neonatal Respiratory Care

Overview

Course Subject Code
RCP

Course Number
388

Course Title
Adv Neonatal Respiratory Care

Department
Health Sciences

Course Description
Survey of perinatal physiology with an emphasis on mechanical ventilation, the application of oxygen, medications, positive pressure, resuscitative efforts and evaluations as applied to the neonatal and pediatric patients. Instruction in neonatal resuscitation meets the standards established by the American Academy of Pediatrics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
3

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP407 - Seminar

Overview

Course Subject Code
RCP

Course Number
407

Course Title
Seminar

Department
Health Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP440 - Case Management I

Overview

Course Subject Code
RCP

Course Number
440

Course Title
Case Management I

Department
Health Sciences

Course Description
Current clinical cases used as the basis for scholarly research and discussion. Students design a research-based senior project in the field of respiratory care, including interviews, research, literature review and formal presentation. Prerequisite: Completion of all academic coursework in the Respiratory Care Program prior to the senior year.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP441 - Case Management II

Overview

Course Subject Code
RCP

Course Number
441

Course Title
Case Management II

Department
Health Sciences

Course Description
Current clinical cases used as the basis for scholarly research and discussion. Students continue to work on senior project in the field of respiratory care, including interviews, research, literature review and formal presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP442 - Case Management III

Overview

Course Subject Code
RCP

Course Number
442

Course Title
Case Management III

Department
Health Sciences

Course Description
Current clinical cases used as the basis for scholarly research and discussion. Students continue work on senior project in the field of respiratory care, including interviews, research, literature review and formal presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP450 - Clinical Care I

Overview

Course Subject Code
RCP

Course Number
450

Course Title
Clinical Care I

Department
Health Sciences

Course Description
Continued development of respiratory care skills, mechanical ventilation and neonatal intensive care, expanded functions and observations in specialty areas.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Lecture, Laboratory, Lecture/Lab, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
9

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
25

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
9

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
24

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP451 - Clinical Care II

Overview

Course Subject Code
RCP

Course Number
451

Course Title
Clinical Care II

Department
Health Sciences

Course Description
Continued development of respiratory care skills, mechanical ventilation and neonatal intensive care, expanded functions and observations in specialty areas.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
9

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
25

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
9

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
24

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP452 - Clinical Care III

Overview

Course Subject Code
RCP

Course Number
452

Course Title
Clinical Care III

Department
Health Sciences

Course Description
Continued development of respiratory care skills, mechanical ventilation and neonatal intensive care, expanded functions and observations in specialty areas.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Externship/Practicum

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
36

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
36

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RCP460 - Advanced Life Support

Overview

Course Subject Code
RCP

Course Number
460

Course Title
Advanced Life Support

Department
Health Sciences

Course Description
Students become certified or recertified in professional life support classes such as Basic Life Support, Advanced Cardiac Life Support, Neonatal Life Support, Pediatric Life Support. Clinical simulations and other credentialing exam preparation included.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
2

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
2

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
6

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RCP561 - Individual Development Plan

Overview

Course Subject Code
RCP

Course Number
561

Course Title
Individual Development Plan

Department
Health Sciences

Course Description
Collaboration, negotiation and the development of priorities for program planning. Systematic planning required for the development and documentation of four professional competencies.Prerequisites: State license, current respiratory care employment and the National Board for Respiratory Care (RRT) credential

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

RCP565 - Clinical Preceptorship

Overview

Course Subject Code
RCP

Course Number
565

Course Title
Clinical Preceptorship

Department
Health Sciences

Course Description
Clinical practice beyond that of an advanced graduate as described in the OIT approved IDP. Areas for development of advanced clinical practice include the intensive care units, pulmonary rehabilitation, research, home care, education and management. Course completion is required for the fulfillment of the IDP.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

RCP575 - Accreditation Practicum

Overview

Course Subject Code
RCP

Course Number
575

Course Title
Accreditation Practicum

Department
Health Sciences

Course Description
Respiratory Care leaders are proactive in the validation of their programs through accreditation. This practicum provides the emerging leader with a practical familiarity with program data collection and the assessment of that data in comparison to accreditation standards. Methods of improving the outcomes of individual programs are studied. Course completion requires fulfillment of IDP.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

RDSC107 - Seminar

Overview

Course Subject Code
RDSC

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC201 - Imaging Techniques I

Overview

Course Subject Code
RDSC

Course Number
201

Course Title
Imaging Techniques I

Department
Medical Imaging Technology

Course Description
Demonstration and practice with the phenomena and causes of image formation and visualization. The context includes studies of effects of technique-factor changes, effects of the use of various accessories and effects of chemicals in film processing. Causes of radiographic artifacts are discussed and explored. Includes the study of interactions of radiation and matter.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC202 - Imaging Techniques II

Overview

Course Subject Code
RDSC

Course Number
202

Course Title
Imaging Techniques II

Department
Medical Imaging Technology

Course Description
Radiographic principles and principles of radiographic quality. Study of theory and practice in methods of protection against ionizing radiation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC205 - Patient Care

Overview

Course Subject Code
RDSC

Course Number
205

Course Title
Patient Care

Department
Medical Imaging Technology

Course Description
Basic concepts of patient care, including consideration of physical and psychological needs of the patient and family. Routine and emergency patient care procedures. Infection control procedures utilizing Universal Precautions. Role of the radiographer in patient education.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC207 - Seminar

Overview

Course Subject Code
RDSC

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC210 - Radiograph Position I

Overview

Course Subject Code
RDSC

Course Number
210

Course Title
Radiograph Position I

Department
Medical Imaging Technology

Course Description
Demonstration and practice of the routine and special radiographic positions of bones of the upper and lower extremities excluding the shoulder and pelvic girdles.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC211 - Radiograph Position II

Overview

Course Subject Code
RDSC

Course Number
211

Course Title
Radiograph Position II

Department
Medical Imaging Technology

Course Description
Demonstration and practice of routine and special radiographic positions of the axial skeleton, shoulder, and pelvic girdles.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC233 - Contrast Media Proc

Overview

Course Subject Code
RDSC

Course Number
233

Course Title
Contrast Media Proc

Department
Medical Imaging Technology

Course Description
Routine radiographic examinations of the urinary system, gastrointestinal biliary system, respiratory system, and nervous system, using various contrast medias and filming techniques. All radiographically significant anatomy, physiology, pathology, terminology, and topography, including all contrast studies of these systems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC235 - Equipment Operation & Maint

Overview

Course Subject Code
RDSC

Course Number
235

Course Title
Equipment Operation & Maint

Department
Medical Imaging Technology

Course Description
Basic components and operation of radiographic, fluoroscopic, and mobile units. Evaluation, calibration, and maintenance of radiographic equipment and accessories.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC272 - Radiation Protection

Overview

Course Subject Code
RDSC

Course Number
272

Course Title
Radiation Protection

Department
Medical Imaging Technology

Course Description
Basic properties, sources, units of measurement, dosimetry and biological effects of radiation. Methods of personnel protection and minimizing patient exposure. NCRP recommendations for protective devices and personnel monitoring.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC301 - Radiograph Position III

Overview

Course Subject Code
RDSC

Course Number
301

Course Title
Radiograph Position III

Department
Medical Imaging Technology

Course Description
Demonstration and practice of routine and special radiographic positions of the skull, facial bones, and paranasal sinuses.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC307 - Seminar

Overview

Course Subject Code
RDSC

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
30

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC320 - Surg/Trauma/Mobl Rdgrph

Overview

Course Subject Code
RDSC

Course Number
320

Course Title
Surg/Trauma/Mobl Rdgrph

Department
Medical Imaging Technology

Course Description
Routine radiographic examinations of the reproductive, muscular, nervous, skeletal and circulatory systems. Also including emergency and surgical procedures, using various contrast media and filming techniques. The comprehensive study of all radiographically significant anatomy, physiology, pathology, terminology, and topography including all contrast studies of these systems. Control of microorganism by physical and chemical means is incorporated as necessary.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC326 - Crdvsclr/Interv Tech

Overview

Course Subject Code
RDSC

Course Number
326

Course Title
Crdvsclr/Interv Tech

Department
Medical Imaging Technology

Course Description
Demonstration and practice of special radiographic examinations of nervous and vascular systems including use of serial film changers and pressure injectors, and other necessary equipment. Also includes related nursing procedures.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC354 - Mammography

Overview

Course Subject Code
RDSC

Course Number
354

Course Title
Mammography

Department
Medical Imaging Technology

Course Description
An in-depth analysis of mammographic positioning, exposure techniques, quality control, film critiquing, and radiation safety. Includes mock registry exam.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC355 - Computed Tomography

Overview

Course Subject Code
RDSC

Course Number
355

Course Title
Computed Tomography

Department
Medical Imaging Technology

Course Description
X-ray physics, scanner components and data acquisition of computed tomography. Image reconstruction, manipulation and artifacts. CT patient care and imaging procedures of the head, neck, spine, chest, abdomen, pelvis and musculoskeletal system.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC356 - Magnetic Resonance

Overview

Course Subject Code
RDSC

Course Number
356

Course Title
Magnetic Resonance

Department
Medical Imaging Technology

Course Description
Physics and principles used in the production of magnetic resonance images and spectroscopy. Static magnetic fields, gradient magnetic fields, secondary coil fields, nuclear magnetic resonance (NMR), spatial domain, frequency domain, computer data acquisition, relaxation times, pulse sequence diagrams.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Cap Project COOP Lab, *Computer-Accessed Course, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
7

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
4

Lab Hours Operator
TO

Pre-Requisites

No Requirements

RDSC366 - Radiographic Pathology

Overview

Course Subject Code
RDSC

Course Number
366

Course Title
Radiographic Pathology

Department
Medical Imaging Technology

Course Description
An overview of common pathological conditions encountered in the clinical setting, for RDSC students. Pathology is categorized by body systems. The students will learn the pathology as they relate to: signs and symptoms, etiology, imaging diagnosis and prognosis and treatment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC388 - Externship Preparation

Overview

Course Subject Code
RDSC

Course Number
388

Course Title
Externship Preparation

Department
Medical Imaging Technology

Course Description
Presentation of key concepts related to Radiologic Science externship and required in-services. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the clinical environment. Review and discussion of the RDSC Externship Handbook. This course is a mandatory course that must be completed prior to externship.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Number Of Repeats
3

Pre-Requisites

No Requirements

RDSC407 - Seminar

Overview

Course Subject Code
RDSC

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
2

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC410 - Rad Science Externship

Overview

Course Subject Code
RDSC

Course Number
410

Course Title
Rad Science Externship

Department
Medical Imaging Technology

Course Description
Students must complete four terms (12 months) of clinical experience in both general radiography and special imaging modalities to include computerized tomography, ultrasound, nuclear medicine and/or special radiographic procedures in an affiliated hospital. The student will complete all phases of general radiography and one month in each of three of the special imaging modalities. Affiliated hospitals are approved by the Joint Review Committee on Education in Radiologic Technology. The students are under the direct supervision of qualified radiographers and radiologists. Prerequisite: All academic course work in the Radiologic Science curriculum.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC411 - Special Rad Sci Extern

Overview

Course Subject Code
RDSC

Course Number
411

Course Title
Special Rad Sci Extern

Department
Medical Imaging Technology

Course Description
This one-term (3-month) practicum is designed to develop the skills of the student in the special imaging modalities, i.e., computed tomography, magnetic resonance imaging, ultrasound, nuclear medicine and special radiographic procedures. The student is sent to an affiliated hospital that has the required special imaging equipment to give the hands-on experience to develop competency in each of three areas chosen by the student. The student will spend one month in each selected area. Prerequisite: The student must have completed all academic course work in the Medical Imaging program with grade "C" or better and be a Registered Technologist.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC411A - Special Rad Sci Extern

Overview

Course Subject Code
RDSC

Course Number
411A

Course Title
Special Rad Sci Extern

Department
Medical Imaging Technology

Course Description
This two term practicum is designed to develop skills of the degree completion student in special imaging modalities of computed tomography, magnetic resonance imaging, cardiovascular/ interventional technology, mammography, quality assurance, nuclear medicine technology, or sonography. The student selects a local hospital or medical center that has the necessary equipment. Upon approval of the facility, the student begins a supervised experience to develop competencies in each of three chosen areas. Must be an ARRT registered technologist in good standing, and have completed all the academic course work in the Medical Imaging curriculum with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
7

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
7

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
18

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

RDSC411B - Special Rad Sci Extern

Overview

Course Subject Code
RDSC

Course Number
411B

Course Title
Special Rad Sci Extern

Department
Medical Imaging Technology

Course Description
This two term practicum is designed to develop skills of the degree completion student in special imaging modalities of computed tomography, magnetic resonance imaging, cardiovascular/ interventional technology, mammography, quality assurance, nuclear medicine technology, or sonography. The student selects a local hospital or medical center that has the necessary equipment. Upon approval of the facility, the student begins a supervised experience to develop competencies in each of three chosen areas. Must be an ARRT registered technologist in good standing, and have completed all the academic course work in the Medical Imaging curriculum with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
8

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
22

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
8

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
22

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE107 - Seminar

Overview

Course Subject Code
REE

Course Number
107

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE201 - Intro to Renewable Energy

Overview

Course Subject Code
REE

Course Number
201

Course Title
Intro to Renewable Energy

Department
Electrical & Renewable Energy

Course Description
An introduction to renewable energy. Topics include photovoltaics, solar thermal systems, green building, fuel cells, hydrogen, wind power, waste heat, biofuels, wave power, tidal power and hydroelectric. Discussions of economic, environment, politics and social policy are integral components of the course.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE207 - Seminar

Overview

Course Subject Code
REE

Course Number
207

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
10

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
10

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
10

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
10

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE221 - LabView Programming

Overview

Course Subject Code
REE

Course Number
221

Course Title
LabView Programming

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Laboratory, Lecture/Lab, Independent Study, *Computer-Accessed Course, SR GR Cap Project COOP Lab

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Pre-Requisites

No Requirements

REE243 - Electrical Power

Overview

Course Subject Code
REE

Course Number
243

Course Title
Electrical Power

Department
Electrical & Renewable Energy

Course Description
Fundamentals of electrical power. Power systems components and equipment. Fundamental analysis and design of electrical power systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE251 - Electromechanical Energy Cnver

Overview

Course Subject Code
REE

Course Number
251

Course Title
Electromechanical Energy Cnver

Department
RES

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study, SR GR Cap Project COOP Lab

Grade Modes
Graded

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

REE253 - Electromech Energy Conversion

Overview

Course Subject Code
REE

Course Number
253

Course Title
Electromech Energy Conversion

Department
Electrical & Renewable Energy

Course Description
Motoring and generating principles for direct current, synchronous, and induction machines. Analysis and design of motor and generator power and control circuits.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE307 - Seminar

Overview

Course Subject Code
REE

Course Number
307

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE315 - Digital Logic

Overview

Course Subject Code
REE

Course Number
315

Course Title
Digital Logic

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study, SR GR Cap Project COOP Lab, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
3

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Pre-Requisites

No Requirements

REE331 - Fuel Cells

Overview

Course Subject Code
REE

Course Number
331

Course Title
Fuel Cells

Department
Electrical & Renewable Energy

Course Description
Introduction to fuel cell technologies: PEM, PAFC, AFC, SOFC, MCFC and DMFC systems. Fuel cell components and systems; field flow plates, electrolytes, electrode materials, electrode catalysts, on-board reformers. Portable devices, utility-scale power production, transportation systems. Fuel types and fuel storage.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE333 - Batteries

Overview

Course Subject Code
REE

Course Number
333

Course Title
Batteries

Department
Electrical & Renewable Energy

Course Description
This course covers fundamentals of the most important battery types including alkaline, zinc-air, lead-acid, nickel-cadmium, nickel-metal hydride, lithium ion, and lithium polymer. Applications include stationary, transportation, and portable batteries. The lab deals with battery system design, testing, and prototype assembly.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE335 - Hydrogen

Overview

Course Subject Code
REE

Course Number
335

Course Title
Hydrogen

Department
Electrical & Renewable Energy

Course Description
This course will cover hydrogen production, storage, distribution, and use. Specific energy scenarios such as renewable hydrogen cycles will be explored focusing on transportation applications. The concept of hydrogen economy will be discussed in the context of global energy crisis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE337 - Materials for RE Applications

Overview

Course Subject Code
REE

Course Number
337

Course Title
Materials for RE Applications

Department
Electrical & Renewable Energy

Course Description
Electrical, mechanical, thermal, chemical, optical and processing properties of material in renewable energy systems; solid state device characteristics and their material properties. Engineering applications.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE344 - Nuclear Energy

Overview

Course Subject Code
REE

Course Number
344

Course Title
Nuclear Energy

Department
Electrical & Renewable Energy

Course Description
Introduction to nuclear energy. Atomic and nuclear physics; the interaction of radiation and matter. Nuclear reactor operation; reactor components, nuclear cycles, neutron diffusion and moderation. Reactor shielding. Fuel reprocessing and wasted disposal. Reactor licensing and safety. Economics and environmental concerns.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE345 - Wind Power

Overview

Course Subject Code
REE

Course Number
345

Course Title
Wind Power

Department
Electrical & Renewable Energy

Course Description
Introduction to power production from wind resources. Historical uses of wind resources. The Earth's wind systems. Physics of wind power. Vertical and horizontal axis turbines. Aerodynamics of wind turbines. Large scale turbine farms and siting. Commercial development, economics and environmental impacts.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE348 - Solar Thermal Energy Systems

Overview

Course Subject Code
REE

Course Number
348

Course Title
Solar Thermal Energy Systems

Department
Electrical & Renewable Energy

Course Description
Introduction to solar thermal energy systems for residential, commercial and industrial applications. Solar radiation; topics in heat transfer; flat plate and concentrating collectors; non-imaging optics; applications including water heating, building heating, cooling, industrial process heat, distillation solar thermal power systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE407 - Seminar

Overview

Course Subject Code
REE

Course Number
407

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE412 - Photovoltaic Systems

Overview

Course Subject Code
REE

Course Number
412

Course Title
Photovoltaic Systems

Department
Electrical & Renewable Energy

Course Description
The solar resource, sun charts, site assessments. Grid-connected and stand-alone systems. Module and array performance, PV systems components including batteries, modules, charge controllers, maximum power point trackers, inverters. Economic considerations including investment tax credits, present-value analysis, IRR. Advanced PV materials.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE413 - Electric Power Conv Systems

Overview

Course Subject Code
REE

Course Number
413

Course Title
Electric Power Conv Systems

Department
Electrical & Renewable Energy

Course Description
Power electronics devices in energy applications. DC-DC MPPT and charge controllers. Advanced inverter controls and applications. FACTS and HVDC systems and equipment.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE439 - Energy Systems Auditing & Mgt

Overview

Course Subject Code
REE

Course Number
439

Course Title
Energy Systems Auditing & Mgt

Department
Electrical & Renewable Energy

Course Description
Evaluating building thermal/electric/process loads, including lighting, hot water, HVAC and central plant systems, industrial refrigeration and motors. Opportunities for managing energy use through controls and operations/maintenance strategies. Roles of commissioning, energy auditing, renewables, and economic analysis in reducing use.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE453 - Power System Analysis

Overview

Course Subject Code
REE

Course Number
453

Course Title
Power System Analysis

Department
Electrical & Renewable Energy

Course Description
Faults: symmetric, asymmetric. Modeling system components using positive, negative, zero sequence networks. System admittance matrixes. Load flow computational methods such as Gauss-Seidel, Newton-Raphson. Power system stabilization. Power system analysis using software, emphasizing renewable resources.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE454 - Power Sys Protection & Control

Overview

Course Subject Code
REE

Course Number
454

Course Title
Power Sys Protection & Control

Department
Electrical & Renewable Energy

Course Description
Protection systems overview; protective devices; coordination and sequencing of relays; grounding practices; impedance protection. Methods of power systems operation and control; load-frequency control, automatic generation control. Modeling power systems protection and control using power system analysis software, emphasizing renewable resources.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE455 - Energy Efficient Building Dsgn

Overview

Course Subject Code
REE

Course Number
455

Course Title
Energy Efficient Building Dsgn

Department
Electrical & Renewable Energy

Course Description
Principles of integrated, energy-efficient building design. Interpretation/application of codes, standards. Use of software tools for modeling, simulation of building energy systems. Daylighting, natural ventilation, architectural features of passive solar buildings. Inclusion of renewable resources, and net-zero designs. Life-cycle economic analysis.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE463 - Energy Systems Instrumentation

Overview

Course Subject Code
REE

Course Number
463

Course Title
Energy Systems Instrumentation

Department
Electrical & Renewable Energy

Course Description
Application of electrical and mechanical sensors, data acquisition, logic controllers as applied to energy systems. Determination of physical parameters necessary for control and data-logging. Methods of calibration and correction.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

REE469 - Grid Integration of Renewables

Overview

Course Subject Code
REE

Course Number
469

Course Title
Grid Integration of Renewables

Department
Electrical & Renewable Energy

Course Description
Issues unique to connecting renewable energy generation to the grid. Microgrids. Stability, transient and harmonic effects. Interconnect agreements and requirements. Standard development. SCADA and smart grid concepts. Systems optimization.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE487 - Electric Vehicles I

Overview

Course Subject Code
REE

Course Number
487

Course Title
Electric Vehicles I

Department
Electrical & Renewable Energy

Course Description
More Electric Vehicles, Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicles, Range-extended Electric Vehicles, and all Electric Vehicles including Battery Electric Vehicles (BEVs) and Fuel Cell Vehicles (FCVs). Major components including power electronics converters, electric machines, and electric motor controllers.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE488 - Electric Vehicles II

Overview

Course Subject Code
REE

Course Number
488

Course Title
Electric Vehicles II

Department
Electrical & Renewable Energy

Course Description
Battery and super-capacitor chemistry, manufacturing package assembly, characterization, safety, and economics for lithium ion, lithium polymer systems for Electric Vehicles (EV); Hybrid battery/ ultra-capacitor systems for EV.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE489 - Electric Vehicles III

Overview

Course Subject Code
REE

Course Number
489

Course Title
Electric Vehicles III

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE507 - Seminar

Overview

Course Subject Code
REE

Course Number
507

Course Title
Seminar

Department
Electrical & Renewable Energy

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Seminar, Lecture, Lecture/Lab, Laboratory, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
30

Contact Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
15

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

REE511 - Research Methods/Innovation I

Overview

Course Subject Code
REE

Course Number
511

Course Title
Research Methods/Innovation I

Department
Electrical & Renewable Energy

Course Description
Fundamental concepts of scientific research. An introduction the concepts underlying peer-reviewed research, evaluating the relevance and impact of sources, conducting literature reviews, evaluating published findings, using statistical methods, designing research studies, and writing scholarly articles.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE512 - ResearchMethods/Innov II

Overview

Course Subject Code
REE

Course Number
512

Course Title
ResearchMethods/Innov II

Department
Electrical & Renewable Energy

Course Description
Intellectual property (IP) development, evaluation, and strategy. IP fundamentals, patent fundamentals, conducting patentability searches, evaluating the patentability potential of an invention, drafting invention disclosures for patent applications, assessing the value of a patent or patent portfolio, and IP licensing fundamentals.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE513 - Research Methods/Innov III

Overview

Course Subject Code
REE

Course Number
513

Course Title
Research Methods/Innov III

Department
Electrical & Renewable Energy

Course Description
Strategy and innovation concepts with a focus on technology commercialization. Business strategy frameworks, financial analysis, strategic marketing, operations management, business models, project management, business law, and entrepreneurship.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE515 - Energy Engineering I

Overview

Course Subject Code
REE

Course Number
515

Course Title
Energy Engineering I

Department
Electrical & Renewable Energy

Course Description
Three-term sequence in energy engineering. For a variety of renewable and conventional means of energy production, storage, and distribution, students gain a robust understanding of resources, energy conversion technology, integration with existing systems, regulatory contexts, business environment, and future trends.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE516 - Energy Engineering II

Overview

Course Subject Code
REE

Course Number
516

Course Title
Energy Engineering II

Department
Electrical & Renewable Energy

Course Description
Three-term sequence in energy engineering. For a variety of renewable and conventional means of energy production, storage, and distribution, students gain a robust understanding of resources, energy conversion technology, integration with existing systems, regulatory contexts, business environment, and future trends.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE517 - Energy Engineering III

Overview

Course Subject Code
REE

Course Number
517

Course Title
Energy Engineering III

Department
Electrical & Renewable Energy

Course Description
Three-term sequence in energy engineering. For a variety of renewable and conventional means of energy production, storage, and distribution, students gain a robust understanding of resources, energy conversion technology, integration with existing systems, regulatory contexts, business environment, and future trends.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE525 - Solid-State Physics/Photov Mat

Overview

Course Subject Code
REE

Course Number
525

Course Title
Solid-State Physics/Photov Mat

Department
Electrical & Renewable Energy

Course Description
Principles of PV; electrons and holes in semiconductors; junction analysis. Survey of available semiconductors and materials choices for photovoltaic design. Principles of important photovoltaic devices. Monocrystalline, polycrystalline, and thin film solar cells. Strategies for high efficiency. Photovoltaic materials and phenomena.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE529 - Power System Analysis

Overview

Course Subject Code
REE

Course Number
529

Course Title
Power System Analysis

Department
Electrical & Renewable Energy

Course Description
Faults: symmetric, asymmetric. Modeling system components using positive, negative, zero sequence networks. System admittance matrixes. Load flow computational methods such as Gauss-Seidel, Newton-Raphson. Power system stabilization. Power system analysis using software, emphasizing renewable resources. Requires background in power systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE533 - Heating, Ventilation/Air Condi

Overview

Course Subject Code
REE

Course Number
533

Course Title
Heating, Ventilation/Air Condi

Department
Electrical & Renewable Energy

Course Description
Heating, ventilating, and air conditioning. Application of laws and principles of thermodynamics to analysis, design, and control of mechanically-controlled environments for human comfort, animal health, and food preservation. Teaches computation of heating and cooling loads, humidity control, heating, and refrigeration.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE545 - Applied Photovoltaics

Overview

Course Subject Code
REE

Course Number
545

Course Title
Applied Photovoltaics

Department
Electrical & Renewable Energy

Course Description
The characteristics of sunlight. Solar cell behavior, properties, and design. Cell interconnection and module fabrication. Designing stand-alone and grid-connected photovoltaic systems. Special-purpose photovoltaic applications. Concentrator and hybrid solar thermal and photovoltaic systems. Advanced photovoltaic systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE549 - Power Sys Protection & Control

Overview

Course Subject Code
REE

Course Number
549

Course Title
Power Sys Protection & Control

Department
Electrical & Renewable Energy

Course Description
Protection systems overview; protective devices; coordination and sequencing of relays; grounding practices; impedance protection. Methods of power systems operation and control; load-frequency control, automatic generation control. Modeling power systems protection and control using power system analysis software, emphasizing renewable resources.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE553 - Energy Systems Mgmt/Auditing

Overview

Course Subject Code
REE

Course Number
553

Course Title
Energy Systems Mgmt/Auditing

Department
Electrical & Renewable Energy

Course Description
Evaluating building thermal/electric/process loads, including lighting, hot water, HVAC and central plant systems, industrial refrigeration and motors. Opportunities for managing energy use through controls and operations/maintenance strategies. Roles of commissioning, energy auditing, renewables and economic analysis in reducing energy use.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE565 - Semiconductor Process Enginrng

Overview

Course Subject Code
REE

Course Number
565

Course Title
Semiconductor Process Enginrng

Department
Electrical & Renewable Energy

Course Description
Semiconductor process technology; crystal growth, silicon oxidation, photolithography, etching, diffusions, ion implantation, film deposition. Process integration, manufacturing, and metrology. Future trends and challenges.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE569 - Grid Integration of Renewables

Overview

Course Subject Code
REE

Course Number
569

Course Title
Grid Integration of Renewables

Department
Electrical & Renewable Energy

Course Description
Issues unique to connecting renewable energy generation to the grid. Microgrids. Stability, transient, and harmonic effects. Interconnect agreements and requirements. SCADA and smart grid concepts. System optimization.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE573 - Energy-Efficient Bldg Design

Overview

Course Subject Code
REE

Course Number
573

Course Title
Energy-Efficient Bldg Design

Department
Electrical & Renewable Energy

Course Description
Principles of integrated, energy-efficient building design. Interpretation/application of codes, standards. Use of software tools for modeling, simulation of building energy systems. Daylighting, natural ventilation, architectural features of passive solar buildings. Inclusion of renewable resources and net-zero designs. Life-cycle economic analysis.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE581 - Energy Storage Fundamentals

Overview

Course Subject Code
REE

Course Number
581

Course Title
Energy Storage Fundamentals

Department
Electrical & Renewable Energy

Course Description
The survey course will examine energy storage fundamentals; applications and trends for pumped hydro, compressed air, flywheels, superconducting magnetic energy storage, gravitational mass, supercapacitors, batteries, fuel cells, and thermal systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE582 - Introduction to Batteries

Overview

Course Subject Code
REE

Course Number
582

Course Title
Introduction to Batteries

Department
Electrical & Renewable Energy

Course Description
The course provides introduction to field of batteries and discusses electrochemical fundamentals and general properties of batteries such as energy density, specific power, charging and discharging, temperature effects, again, and self-discharge.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

REE583 - Intro to Fuel Cells

Overview

Course Subject Code
REE

Course Number
583

Course Title
Intro to Fuel Cells

Department
Electrical & Renewable Energy

Course Description
This overview course will introduce students to fundamental fuel cell principles, history, classification, thermodynamics, efficiency and causes of voltage losses, reaction kinetics, electrode performance and catalyst design, and fuel cell components and their impact on performance.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE587 - Advanced Electric Vehicle I

Overview

Course Subject Code
REE

Course Number
587

Course Title
Advanced Electric Vehicle I

Department
Electrical & Renewable Energy

Course Description
More Electric Vehicles, Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicles, Range-extended Electric Vehicles, and all Electric Vehicles including Battery Electric Vehicles (BEVs) and Fuel Cell Vehicles (FCVs). Major components including power electronics converters, electric machines, and electric motor controllers.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE588 - Advanced Electric Vehicle II

Overview

Course Subject Code
REE

Course Number
588

Course Title
Advanced Electric Vehicle II

Department
Electrical & Renewable Energy

Course Description
Battery and super-capacitor chemistry, manufacturing package assembly, characterization, safety, and economics for lithium ion, lithium polymer systems for Electric Vehicles (EV); Hybrid battery/ ultra-capacitor systems for EV.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE589 - Advanced Electric Vehicle III

Overview

Course Subject Code
REE

Course Number
589

Course Title
Advanced Electric Vehicle III

Department
Electrical & Renewable Energy

Course Description
Autonomous vehicle systems; localization technologies; traditional techniques used for perception; deep learning based techniques for perception; planning and control sub-systems, prediction and routing technologies; motion and feedback control on the planning and control sub-system; reinforcement learning-based planning and control.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

REE591 - Hydrogen Prod & Storage

Overview

Course Subject Code
REE

Course Number
591

Course Title
Hydrogen Prod & Storage

Department
Electrical & Renewable Energy

Course Description
The course will discuss the basics of hydrogen production and storage, the concept of hydrogen economy, conventional hydrogen generation, electrochemical and photochemical technologies, principles of hydrogen storage and novel storage materials.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE592 - Advanced Batteries

Overview

Course Subject Code
REE

Course Number
592

Course Title
Advanced Batteries

Department
Electrical & Renewable Energy

Course Description
This course will examine technology and trends in battery chemistry, manufacturing, pack assembly, characterization, safety, economics and applications for battery systems including lead acid, nickel-based, lithium ion, lithium polymer, metal air and flow batteries.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE593 - Advanced Fuel Cells

Overview

Course Subject Code
REE

Course Number
593

Course Title
Advanced Fuel Cells

Department
Electrical & Renewable Energy

Course Description
This course provides in an in-depth analysis of the current trends, fuel processing, novel materials, applications, safety, and characterization for polymer electrolyte membrane, alkaline, phosphoric acid, molten carbonate, solid oxide, and direct methanol fuel cells.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

REE599 - Graduate Reading & Conference

Overview

Course Subject Code
REE

Course Number
599

Course Title
Graduate Reading & Conference

Department
Electrical & Renewable Energy

Course Description
Graduate research leading to the completion of a master's thesis or project. Minimum of three terms required. Requires advisor approval.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
*Computer-Accessed Course, Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
99

Pre-Requisites

No Requirements

SEM421 - Systems Engineering

Overview

Course Subject Code
SEM

Course Number
421

Course Title
Systems Engineering

Department
Electrical & Renewable Energy

Course Description
Foundations of Systems Engineering: Structure of Complex Systems; System Development Processes and Frameworks; System Engineering Validation, Reliability, Availability, Maintainability and Deployment; Human Factors Engineering.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SEM422 - Advanced Systems Engineering

Overview

Course Subject Code
SEM

Course Number
422

Course Title
Advanced Systems Engineering

Department
Electrical & Renewable Energy

Course Description
Advanced concepts in systems science and systems engineering; modeling and mathematical methods for systems engineering; system simulation tools; optimization and decision analysis; case studies involving practical systems, engineering integration of hardware, software, information, and human factor systems.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SEM425 - Advanced Engineering Mgmt

Overview

Course Subject Code
SEM

Course Number
425

Course Title
Advanced Engineering Mgmt

Department
Electrical & Renewable Energy

Course Description
Competitive Strategy, Innovation Strategies, Risk and Return, Creativity and Product Development, Marketing and Sales, Intellectual Property, High-Tech Organization, Acquiring and Organizing Resources, Operations Management, Acquisitions/Global Expansion, Financial Plans, Sources of Capital, Deal Presentations and Negotiations, Successfully Leading High Tech Organizations.

Academic Level (Course Level)
Undergraduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SEM507 - Seminar

Overview

Course Subject Code
SEM

Course Number
507

Course Title
Seminar

Department
Electrical & Renewable Energy

Course Description
Hours to be arranged each term.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SEM521 - Systems Engineering

Overview

Course Subject Code
SEM

Course Number
521

Course Title
Systems Engineering

Department
Electrical & Renewable Energy

Course Description
Foundations of Systems Engineering: Structure of Complex Systems; System Development Processes and Frameworks; System Engineering Validation, Reliability, Availability, Maintainability and Deployment; Human Factors Engineering.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SEM522 - Advanced Systems Engineering

Overview

Course Subject Code
SEM

Course Number
522

Course Title
Advanced Systems Engineering

Department
Electrical & Renewable Energy

Course Description
Advanced concepts in systems science and systems engineering; modeling and mathematical methods for systems engineering; system simulation tools; optimization and decision analysis; case studies involving practical systems engineering integration of hardware, software, information, and human factor systems.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SEM525 - Advanced Engineering Mgmt

Overview

Course Subject Code
SEM

Course Number
525

Course Title
Advanced Engineering Mgmt

Department
Electrical & Renewable Energy

Course Description
Competitive Strategy, Innovation Strategies, Risk and Return, Creativity and Product Development, Marketing and Sales, Intellectual Property, High-Tech Organization, Acquiring and Organizing Resources, Operations Management, Acquisitions/Global Expansion, Financial Plans, Sources of Capital, Deal Presentations and Negotiations, Successfully Leading High Tech Organizations.

Academic Level (Course Level)
Graduate

College/School
College of ETM

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC000 - Social Science Elective Lower

Overview

Course Subject Code
SOC

Course Number
000

Course Title
Social Science Elective Lower

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

SOC00U - Social Science Elective Upper

Overview

Course Subject Code
SOC

Course Number
00U

Course Title
Social Science Elective Upper

Department
Humanities & Social Sciences

College/School
College of HAS

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

SOC107 - Seminar

Overview

Course Subject Code
SOC

Course Number
107

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SOC201 - Classical Sociol Theory

Overview

Course Subject Code
SOC

Course Number
201

Course Title
Classical Sociol Theory

Department
Humanities & Social Sciences

Course Description
Introduction to the early development of sociological theory. Works by Marx, Weber, Durkheim, Parsons and Goffman will be discussed in terms of their contribution to the discipline of sociology.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC202 - Contemporary Soc Theory

Overview

Course Subject Code
SOC

Course Number
202

Course Title
Contemporary Soc Theory

Department
Humanities & Social Sciences

Course Description
Theories on the social construction of self, social and population structures, gender inequality, global capitalism and deviance are explored in the context of contemporary social issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC204 - Intro to Sociology

Overview

Course Subject Code
SOC

Course Number
204

Course Title
Intro to Sociology

Department
Humanities & Social Sciences

Course Description
Survey of human relationships and interaction of organized groups and institutions in modern society. Emphasis on attitudes, values, beliefs, customs and change within our complex social structure.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC204Z - Introduction to Sociology

Overview

Course Subject Code
SOC

Course Number
204Z

Course Title
Introduction to Sociology

Department
Humanities & Social Sciences

Course Description
Introduces the central concepts, theories, and methods that define the sociological approach to investigating the social forces that shape our lives. Topics may include social structure, culture, socialization, race, class, gender, sexuality, and inequality.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

SOC206 - Social Problems

Overview

Course Subject Code
SOC

Course Number
206

Course Title
Social Problems

Department
Humanities & Social Sciences

Course Description
A sociological exploration of contemporary social problems, including crime, illness, poverty, unemployment, immigration, gender inequality, LGBT issues, and the environment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, *Computer-Accessed Course, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC206Z - Social Problems

Overview

Course Subject Code
SOC

Course Number
206Z

Course Title
Social Problems

Department
Humanities & Social Sciences

Course Description
Applies the sociological perspective to the study of social problems, including their social construction, causes, and consequences. Explores the complexities surrounding their solutions, such as how solutions are socially constructed and policy proposals from sociologists and social movements. Topics may include poverty, discrimination, interpersonal violence, crime, addiction, ecological crises, war/global conflict, and health inequality.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

SOC207 - Seminar

Overview

Course Subject Code
SOC

Course Number
207

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
6

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
6

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
6

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SOC220 - Current Health Issues

Overview

Course Subject Code
SOC

Course Number
220

Course Title
Current Health Issues

Department
Humanities & Social Sciences

Course Description
An introduction to the most pressing health issues in contemporary society, including aging, healthcare reform, cost of healthcare, and amenable mortality.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

SOC225 - Medical Sociology

Overview

Course Subject Code
SOC

Course Number
225

Course Title
Medical Sociology

Department
Humanities & Social Sciences

Course Description
Introduction to medical sociology and social-epidemiological research, covering social causes and consequences of health and illness, the practitioner-patient relationship, health behavior, and health care organization.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
*Computer-Accessed Course, Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC235 - Intro to Sustainability

Overview

Course Subject Code
SOC

Course Number
235

Course Title
Intro to Sustainability

Department
Humanities & Social Sciences

Course Description
An introduction to the history, theory and practice of sustainability. The focus is on human-environment interactions, highlighting how human agency can jeopardize our collective future, and how harm can be avoided through appropriate social, political, and legal action.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC301 - Soc Science Research Methods

Overview

Course Subject Code
SOC

Course Number
301

Course Title
Soc Science Research Methods

Department
Humanities & Social Sciences

Course Description
Introduction to theory and methods of research in the social sciences, and interpretation of social science research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
4

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
6

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
4

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC302 - Soc Science Resrch Methods II

Overview

Course Subject Code
SOC

Course Number
302

Course Title
Soc Science Resrch Methods II

Department
Humanities & Social Sciences

Course Description
Continuation of SOC 301 Social Science Research Methods: data collection, analysis, and development of social science research papers.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course, Laboratory, Lecture/Lab

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC305 - Rural Health

Overview

Course Subject Code
SOC

Course Number
305

Course Title
Rural Health

Department
Humanities & Social Sciences

Course Description
Advanced introduction to rural population health and health care. Topics include rural population health and health behavior, economic and social/structural issues, and health care delivery and reform.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC307 - Seminar

Overview

Course Subject Code
SOC

Course Number
307

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SOC335 - Hlth Inequal & Cult Competency

Overview

Course Subject Code
SOC

Course Number
335

Course Title
Hlth Inequal & Cult Competency

Department
Humanities & Social Sciences

Course Description
Introduction to health inequality based on systematic social research. Provision of basic training on cultural competency and underrepresented populations' engagement with the health care system.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC345 - Aging and Society

Overview

Course Subject Code
SOC

Course Number
345

Course Title
Aging and Society

Department
Humanities & Social Sciences

Course Description
Aging and Society examines the aging process from a sociological perspective. The course explores socialization and development in health, education, economics, and families. Students will critically examine how aging is shaped by society's influence on individuals, groups, and cohorts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SOC407 - Seminar

Overview

Course Subject Code
SOC

Course Number
407

Course Title
Seminar

Department
Humanities & Social Sciences

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Lecture/Lab, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Social Science General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
12

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SPE107 - Seminar

Overview

Course Subject Code
SPE

Course Number
107

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SPE207 - Seminar

Overview

Course Subject Code
SPE

Course Number
207

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SPE307 - Seminar

Overview

Course Subject Code
SPE

Course Number
307

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

SPE314 - Argumentation

Overview

Course Subject Code
SPE

Course Number
314

Course Title
Argumentation

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

SPE321 - Small Group/Team Communication

Overview

Course Subject Code
SPE

Course Number
321

Course Title
Small Group/Team Communication

Department
Communication

Course Description
Provides instruction and experience in decision making through group processes designed to develop competent team leaders and participants. Participation in and evaluation of a variety of group communication exercises.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
4

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
2

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

SPE407 - Seminar

Overview

Course Subject Code
SPE

Course Number
407

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

STAT201 - Introduction to Data Science

Overview

Course Subject Code
STAT

Course Number
201

Course Title
Introduction to Data Science

Department
Applied Mathematics

Course Description
A general overview of the field of data science. An introduction to data storage, data types, descriptive statistics, and visualization. Basic relational database structure and data retrieval. Report generation. An introduction to programming logic for data scientists.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Pre-Requisites

No Requirements

STAT211 - Data Science Methods

Overview

Course Subject Code
STAT

Course Number
211

Course Title
Data Science Methods

Department
Applied Mathematics

Course Description
Retrieval, cleaning, transformation, and preparation of data for analysis. An introduction to statistical computing with an emphasis on simulation and non-parametric techniques. Ethics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT243Z - Elementary Statistics I

Overview

Course Subject Code
STAT

Course Number
243Z

Course Title
Elementary Statistics I

Department
Applied Mathematics

Course Description
A first course in statistics focusing on the interpretation and communication of statistical concepts. Introduces exploratory data analysis, descriptive statistics, sampling methods and distributions, point and interval estimates, hypothesis tests for means and proportions, and elements of probability and correlation. Technology will be used when appropriate.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

STAT395 - Junior Project I

Overview

Course Subject Code
STAT

Course Number
395

Course Title
Junior Project I

Department
Applied Mathematics

Course Description
Team-based applications of data science with an emphasis on workflow and reproducible results.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT396 - Junior Project II

Overview

Course Subject Code
STAT

Course Number
396

Course Title
Junior Project II

Department
Applied Mathematics

Course Description
Team-based applications of data science with an emphasis on workflow and reproducible results.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT397 - Junior Project III

Overview

Course Subject Code
STAT

Course Number
397

Course Title
Junior Project III

Department
Applied Mathematics

Course Description
Selection of a senior project that incorporates techniques from computer science, mathematics, statistics, and management. The project may be in one of the following three categories: application to another discipline, algorithmic/computational or theoretical.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
1

Contact Hours

Contact Hours
Min
1

Billing Hours

Billing Hours
Min
1

Lecture Hours

Lecture Hours
Min
1

Pre-Requisites

No Requirements

STAT405 - Adv. Methods in Data Science

Overview

Course Subject Code
STAT

Course Number
405

Course Title
Adv. Methods in Data Science

Department
Applied Mathematics

Course Description
A selection of topics from modern data science techniques with a focus on relevant applied problems.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT407 - Seminar

Overview

Course Subject Code
STAT

Course Number
407

Course Title
Seminar

Department
Applied Mathematics

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, Laboratory, Lecture/Lab

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Math/Science General Ed

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
6

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
1

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
6

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
1

Lecture Hours Max
6

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

STAT412 - Regression & Times Series

Overview

Course Subject Code
STAT

Course Number
412

Course Title
Regression & Times Series

Department
Applied Mathematics

Course Description
Examines an introduction to regression analysis with a focus on multiple linear regression. Topics include statistical inference, goodness of fit, diagnostics, criteria for choosing covariates, categorical predictors, and an introduction to analysis of time series data.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
4

Contact Hours

Contact Hours Min
4

Billing Hours

Billing Hours Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

STAT414 - Stat Methods in Epidemiology

Overview

Course Subject Code
STAT

Course Number
414

Course Title
Stat Methods in Epidemiology

Department
Applied Mathematics

Course Description
Examines the methods used in epidemiologic research, including the design of epidemiologic studies and the collecting and analysis of epidemiological data.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

STAT441 - Statistical Machine Learning I

Overview

Course Subject Code
STAT

Course Number
441

Course Title
Statistical Machine Learning I

Department
Applied Mathematics

Course Description
An introduction to machine learning with an emphasis on statistical theory. Supervised (discriminative and generative models) and unsupervised learning for categorical and numerical outcomes. Model selection and assessment.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT442 - Statistic Machine Learning II

Overview

Course Subject Code
STAT

Course Number
442

Course Title
Statistic Machine Learning II

Department
Applied Mathematics

Course Description
Deep learning including designing and fitting neural networks for a variety of datasets, including independent, sequential, text, image, and big. Reinforcement learning.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT495 - Senior Project I

Overview

Course Subject Code
STAT

Course Number
495

Course Title
Senior Project I

Department
Applied Mathematics

Course Description
Research and write a statistical analysis plan for the senior project. This project incorporates techniques from computer science, mathematics, statistics, and management and may be in one of the following three categories: application to another discipline, algorithmic/computational or theoretical.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Pre-Requisites

No Requirements

STAT496 - Senior Project II

Overview

Course Subject Code
STAT

Course Number
496

Course Title
Senior Project II

Department
Applied Mathematics

Course Description
Implementation of a statistical analysis plan for the senior project. This project incorporates techniques from computer science, mathematics, statistics, and management and may be in one of the following three categories: application to another discipline, algorithmic/ computational or theoretical.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Pre-Requisites

No Requirements

STAT497 - Senior Project III

Overview

Course Subject Code
STAT

Course Number
497

Course Title
Senior Project III

Department
Applied Mathematics

Course Description
Presentation and results from senior project. This project incorporates techniques from computer science, mathematics, statistics, and management and may be in one of the following three categories: application to another discipline, algorithmic/computational or theoretical.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture, SR GR Capstone Project COOP

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
2

Billing Hours

Billing Hours
Min
2

Pre-Requisites

No Requirements

STAT505 - Biostatistics I

Overview

Course Subject Code
STAT

Course Number
505

Course Title
Biostatistics I

Department
Applied Mathematics

Course Description
This course focuses on the introduction of statistics and application of statistical methods to data most often seen by medical practitioners and researchers. This course provides an introduction to the collection and analysis of public health and health care data. Elements of statistical inference, probability distributions, sampling, confidence intervals, and estimation of means and rates are reviewed with emphasis on application and critical interpretation of the results.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

STAT515 - Epidemiology I

Overview

Course Subject Code
STAT

Course Number
515

Course Title
Epidemiology I

Department
Applied Mathematics

Course Description
This course will serve as an introduction to the basic principles of epidemiology and the measures used in epidemiology, epidemiologic study design and analysis, and other topics that are important to an introductory understanding of epidemiology.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

UDT000 - Upper Division Transfer

Overview

Course Subject Code
UDT

Course Number
000

Course Title
Upper Division Transfer

Department
Department Not Declared

College/School
General Studies

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Pre-Requisites

No Requirements

VAS107 - Seminar

Overview

Course Subject Code
VAS

Course Number
107

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS207 - Seminar

Overview

Course Subject Code
VAS

Course Number
207

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Laboratory, Lecture/Lab, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
2

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
1

Credit Hours Max
13

Credit Hours Operator
TO

Billing Hours

Billing Hours Min
1

Billing Hours Max
13

Billing Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS214 - Vascular Anatomy

Overview

Course Subject Code
VAS

Course Number
214

Course Title
Vascular Anatomy

Department
Medical Imaging Technology

Course Description
Detailed consideration of the gross and microscopic anatomy of arteries and veins throughout the human body. Laboratory includes cadaver dissection, anatomical models, and an introduction to instrumentation and basic ultrasound scanning techniques.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS225 - Patient Mgmt Practices

Overview

Course Subject Code
VAS

Course Number
225

Course Title
Patient Mgmt Practices

Department
Medical Imaging Technology

Course Description
Current issues in the practice of vascular technology with emphasis on basic concepts of patient care, infection control procedures, and the technologist's responsibility to the patient, the patient's family, and the vascular technology profession.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
3

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
5

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
3

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
2

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS245 - Periphrl Venous Disease

Overview

Course Subject Code
VAS

Course Number
245

Course Title
Periphrl Venous Disease

Department
Medical Imaging Technology

Course Description
Investigation to the pathophysiology of venous disease with emphasis on theoretical and practical considerations of diagnostic methods of venous testing. These include clinical assessment, plethysmograph, and Duplex Imaging of lower extremity veins.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS246 - Perphrl Arterial Disease

Overview

Course Subject Code
VAS

Course Number
246

Course Title
Perphrl Arterial Disease

Department
Medical Imaging Technology

Course Description
Investigation of the pathophysiology of arterial occlusive disease with emphasis on the theoretical and practical considerations of diagnosis methods of arterial testing. These include clinical assessment, physiological evaluation, and Duplex imaging of lower extremity arteries.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS307 - Seminar

Overview

Course Subject Code
VAS

Course Number
307

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Independent Study, Seminar

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS335 - Radiogrphc Vasclr Anat

Overview

Course Subject Code
VAS

Course Number
335

Course Title
Radiogrphc Vasclr Anat

Department
Medical Imaging Technology

Course Description
Survey of medical imaging modalities ancillary to vascular sonography including angiography, digital subtraction angiography, computerized tomography and magnetic resonance angiography. Student teams will prepare case studies comparing the efficacy of these imaging modalities.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS337 - Survey of Echocardiography

Overview

Course Subject Code
VAS

Course Number
337

Course Title
Survey of Echocardiography

Department
Medical Imaging Technology

Course Description
A survey of basic echocardiography with emphasis on normal cardiac anatomy and abnormal disease states. Standard sonographic imaging techniques of adult echocardiography, including instrumentation and protocols.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
3

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
5

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
3

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
2

Lecture Hours
Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours
Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS365 - Abdominal Vasc Disease

Overview

Course Subject Code
VAS

Course Number
365

Course Title
Abdominal Vasc Disease

Department
Medical Imaging Technology

Course Description
Diagnostic methods of abdominal and visceral vascular disease testing. Includes aorto-iliac, renal artery and kidney, mesenteric system, liver system and transplantations. Laboratory emphasizes advanced instrumentation and scanning techniques, patient interviews, clinical signs and symptoms, physical assessment and findings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS366 - Spec Circulatory Problms

Overview

Course Subject Code
VAS

Course Number
366

Course Title
Spec Circulatory Problms

Department
Medical Imaging Technology

Course Description
Diagnostic methods of testing the efficacy of vascular surgical procedures and interventions. To include arterial bypass grafts, organ transplants, and dialysis access grafts. Venous and arterial mapping, upper extremity venous and arterial disease testing, IVUS, pseudo aneurysm treatment, and compartment syndrome will also be covered.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS367 - Cerebrovascular Disease

Overview

Course Subject Code
VAS

Course Number
367

Course Title
Cerebrovascular Disease

Department
Medical Imaging Technology

Course Description
Theoretical and practical considerations of diagnostic methods of testing arterial and venous diseases affecting the vasculature of the head and neck including the intracerebral vessels. Laboratory includes advanced instrumentation and scanning techniques, and instruction on patient interviewing, clinical signs and symptoms, physical assessment and findings.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
4

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
6

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
4

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
3

Lecture Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
3

Lab Hours Operator
TO

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS375 - Survey Abdom Sonography

Overview

Course Subject Code
VAS

Course Number
375

Course Title
Survey Abdom Sonography

Department
Medical Imaging Technology

Course Description
A survey of basic abdominal sonography with emphasis on normal abdominal anatomy and abnormal disease states. Standard sonographic imaging techniques of general abdomen, instrumentation, and abdominal protocols. Corequisite: VAS 365.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS385 - Vascular Lab Mgmt

Overview

Course Subject Code
VAS

Course Number
385

Course Title
Vascular Lab Mgmt

Department
Medical Imaging Technology

Course Description
Focus on human resource skills as necessary to manage a vascular laboratory. Includes the interview process, hiring and firing, as well as employee performance evaluation. Other topics will include reimbursement, licensure, accreditation and other management issues.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS388 - Externship Preparation

Overview

Course Subject Code
VAS

Course Number
388

Course Title
Externship Preparation

Department
Medical Imaging Technology

Course Description
Review and summarization of key concepts in Vascular Technology. Focus is on patient care and interpersonal scenarios the externship student will likely face while in the hospital environment or independent vascular lab. Review and discussion of the Vascular Technology Externship Handbook.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours
Min
2

Contact Hours

Contact Hours
Min
2

Billing Hours

Billing Hours
Min
2

Lecture Hours

Lecture Hours
Min
2

Lab Hours

Lab Hours Min
0

Number Of Repeats
3

Pre-Requisites

No Requirements

VAS407 - Seminar

Overview

Course Subject Code
VAS

Course Number
407

Course Title
Seminar

Department
Medical Imaging Technology

Course Description
(Hours to be arranged each term.)

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
12

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
12

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
12

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
12

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS420 - Vascular Tech Extern

Overview

Course Subject Code
VAS

Course Number
420

Course Title
Vascular Tech Extern

Department
Medical Imaging Technology

Course Description
All B.S. students complete four terms (12 months) of clinical experience in Vascular Technology at an affiliated clinical site. Students work under the direct supervision of Registered Vascular Technologists and provide monthly log sheets and evaluation forms. Students prepare clinical case studies each term. Prerequisite: All academic course work in the Vascular Technology curriculum.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Externship/Practicum, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Allied Health

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
40

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
40

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS420A - Special Vas Tech Extern

Overview

Course Subject Code
VAS

Course Number
420A

Course Title
Special Vas Tech Extern

Department
Medical Imaging Technology

Course Description
This two term special externship is designed for the degree completion student. Students working in a clinical vascular setting will prepare clinical case studies as well as rotate through special imaging modalities. Prerequisite: Be an ARDMS or CCI Registered Vascular Technologist in good standing, and have completed academic course work in the Medical Imaging curriculum with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
8

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
22

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
8

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
22

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

VAS420B - Special Vas Tech Extern

Overview

Course Subject Code
VAS

Course Number
420B

Course Title
Special Vas Tech Extern

Department
Medical Imaging Technology

Course Description
This two term special externship is designed for the degree completion student. Students working in a clinical vascular setting will prepare clinical case studies as well as rotate through special imaging modalities. Prerequisite: Be an ARDMS or CCI Registered Vascular Technologist in good standing, and have completed academic course work in the Medical Imaging curriculum with grade "C" or better.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Externship/ Practicum

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
7

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
18

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
7

Billing Hours Operator
TO

Lab Hours

Lab Hours Min
0

Lab Hours Max
18

Lab Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI107 - Seminar

Overview

Course Subject Code
WRI

Course Number
107

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Other Hours

Other Hours Min
0

Other Hours Max
15

Other Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI121Z - Composition I

Overview

Course Subject Code
WRI

Course Number
121Z

Course Title
Composition I

Department
Communication

Course Description
WRI 121Z engages students in the study and practice of critical thinking, reading, and writing. The course focuses on analyzing and composing across varied rhetorical situations and in multiple genres. Students will apply key rhetorical concepts flexibly and collaboratively throughout their writing and inquiry processes.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI122Z - Composition II

Overview

Course Subject Code
WRI

Course Number
122Z

Course Title
Composition II

Department
Communication

Course Description
WRI 122Z builds on concepts and processes emphasized in WRI 121Z, engaging with inquiry, research, and argumentation in support of students' development as writers. The course focuses on composing and revising in research-based genres through the intentional use of rhetorical strategies. Students will find, evaluate, and interpret complex material, including lived experience; use this to frame and pursue their own research questions; and integrate material purposefully into their own compositions.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI207 - Seminar

Overview

Course Subject Code
WRI

Course Number
207

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI214 - Business Correspondence

Overview

Course Subject Code
WRI

Course Number
214

Course Title
Business Correspondence

Department
Communication

Course Description
Focuses on theories and strategies governing written correspondence. Designed to equip the student to perform effectively in a variety of business writing situations; major emphasis on practical applications.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI216 - Public Relations Writing

Overview

Course Subject Code
WRI

Course Number
216

Course Title
Public Relations Writing

Department
Communication

Course Description
Students will be introduced to the basics of writing and designs public relations communication, including press releases, newsletters, brochures, and other written public relations communication tactics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

WRI225 - Writing Nonfiction

Overview

Course Subject Code
WRI

Course Number
225

Course Title
Writing Nonfiction

Department
Communication

Course Description
Study of strategies for nonfiction composition. Both creation of text and analysis of existing texts to apply the principles of effective nonfiction prose. Practical steps, techniques, and best practices geared toward analyzing, creating, organizing, revising effective nonfiction prose for publication. Significant amount of time spent writing and editing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

WRI227Z - Technical Writing

Overview

Course Subject Code
WRI

Course Number
227Z

Course Title
Technical Writing

Department
Communication

Course Description
WRI 227Z introduces students to producing instructive, informative, and persuasive technical/professional documents aimed at well-defined and achievable outcomes. The course focuses on presenting information using rhetorically appropriate style, design, vocabulary, structure, and visuals. Students can expect to gather, read, and analyze information and to learn a variety of strategies for producing accessible, usable, reader-centered deliverable documents that are clear, concise, and ethical.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
4

Contact Hours

Contact Hours
Min
4

Billing Hours

Billing Hours
Min
4

Lecture Hours

Lecture Hours
Min
4

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI305 - Writing for the Marketplace

Overview

Course Subject Code
WRI

Course Number
305

Course Title
Writing for the Marketplace

Department
Communication

Course Description
Designed to introduce the basics of professional writing- fiction, personal experience, and technical articles, etc. for publication, including marketing and manuscript preparation. Each student must submit at least one article or story (8 pages or more) for publication during the term.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI307 - Seminar

Overview

Course Subject Code
WRI

Course Number
307

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
15

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
15

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
15

Billing Hours
Operator
TO

Other Hours

Other Hours Min
0

Other Hours
Max
15

Other Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI325 - Advanced Composition

Overview

Course Subject Code
WRI

Course Number
325

Course Title
Advanced Composition

Department
Communication

Course Description
Advanced writing in varied topics specific to disciplines and realistic assignments in professional writing. 30 to 40 pages of formal writing required with several long pieces designed for publication. Open to advanced students in a variety of majors.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

WRI327 - Advanced Tech Writing

Overview

Course Subject Code
WRI

Course Number
327

Course Title
Advanced Tech Writing

Department
Communication

Course Description
Processes involved in technical writing and methods of preparing technical data; offers a variety of writing problems to provide opportunities for the student to develop precision in statement and in graphic presentation.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI327C - Advanced Technical Writing

Overview

Course Subject Code
WRI

Course Number
327C

Course Title
Advanced Technical Writing

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
1

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
1

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
1

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
1

Lecture Hours Operator
TO

Number Of Repeats
3

WRI328 - Style

Overview

Course Subject Code
WRI

Course Number
328

Course Title
Style

Department
Communication

Course Description
Focuses on developing strategies for diagnosing, analyzing, and revising clarity using the technical vocabulary of style. Approaches style as a rhetorical concern dependent on audience and other aspects of the situation. Applicable to both research and professional/technical writing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours Min
3

Billing Hours

Billing Hours Min
3

Lecture Hours

Lecture Hours Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements

WRI345 - Science Writing

Overview

Course Subject Code
WRI

Course Number
345

Course Title
Science Writing

Department
Communication

Course Description
Processes and strategies involved in communicating scientific information to professional and lay audiences, including: topic, hypothesis, and experimental method description; literature review strategies; writing and project management strategies; visual display of quantitative data.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI350 - Documentation Development

Overview

Course Subject Code
WRI

Course Number
350

Course Title
Documentation Development

Department
Communication

Course Description
Provides students with basic tools for preparing documentation. Focuses on usability of documentation and includes planning and scheduling, audience evaluation, use of appropriate examples and illustrations, style, editing technique, organization and research.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI407 - Seminar

Overview

Course Subject Code
WRI

Course Number
407

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours Min
0

Credit Hours Max
15

Credit Hours Operator
TO

Contact Hours

Contact Hours Min
0

Contact Hours Max
15

Contact Hours Operator
TO

Billing Hours

Billing Hours Min
0

Billing Hours Max
15

Billing Hours Operator
TO

Lecture Hours

Lecture Hours Min
0

Lecture Hours Max
15

Lecture Hours Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI410 - Proposal & Grant Writing

Overview

Course Subject Code
WRI

Course Number
410

Course Title
Proposal & Grant Writing

Department
Communication

Course Description
Provides theory and skills in proposal writing for seeking funding from public and private agencies and for preparing proposals in business and industrial settings. Focuses on the process of preparing proposals, including analyzing audiences, conducting research, organizing, writing, and editing.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Course Attributes
Communication General Ed

Credits

Credit Hours

Credit Hours Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI415 - Technical Editing

Overview

Course Subject Code
WRI

Course Number
415

Course Title
Technical Editing

Department
Communication

Course Description
Focuses on the role of the technical editor in business and industry. Examines the publishing process, the dynamics of the editor/writer relationship, and mechanics and techniques of proofreading and copyediting. Provides considerable practice in copyediting and proofreading manuscripts.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI420 - Document Design

Overview

Course Subject Code
WRI

Course Number
420

Course Title
Document Design

Department
Communication

Course Description
Applies publishing and graphic arts principles to the preparation of professional publications and oral presentation materials. Includes typography, design principles, the use of graphical elements, and integration of text and graphics.

Academic Level (Course Level)
Undergraduate

College/School
College of HAS

Schedule Type
Laboratory, Lecture/Lab, Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
3

Pre-Requisites

No Requirements

WRI507 - Seminar

Overview

Course Subject Code
WRI

Course Number
507

Course Title
Seminar

Department
Communication

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Lecture, Independent Study, *Computer-Accessed Course

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
0

Credit Hours
Max
12

Credit Hours
Operator
TO

Contact Hours

Contact Hours
Min
0

Contact Hours
Max
12

Contact Hours
Operator
TO

Billing Hours

Billing Hours
Min
0

Billing Hours
Max
12

Billing Hours
Operator
TO

Lecture Hours

Lecture Hours
Min
0

Lecture Hours
Max
12

Lecture Hours
Operator
TO

Number Of Repeats
99

Pre-Requisites

No Requirements

WRI510 - Grant Proposal Writing

Overview

Course Subject Code
WRI

Course Number
510

Course Title
Grant Proposal Writing

Department
Communication

Course Description
This Provides theory and skills in proposal writing for seeking funding from public and private agencies and for preparing proposals in business and industrial settings. Focuses on the process of preparing proposals, including analyzing audiences, conducting research, organizing, writing, and editing.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Pre-Requisites

No Requirements

WRI521 - Writing at the Grad Level

Overview

Course Subject Code
WRI

Course Number
521

Course Title
Writing at the Grad Level

Department
Communication

Course Description
Focuses on developing graduate-level writing and research skills with emphasis on field-appropriate academic style, conventions, and research literacy. Culminates in synthesis of professional and academic sources into a substantive literature review.

Academic Level (Course Level)
Graduate

College/School
College of HAS

Schedule Type
Independent Study, Lecture

Grade Modes
Graded, Pass/No pass

Consent (Approval)
1

Credits

Credit Hours

Credit Hours
Min
3

Contact Hours

Contact Hours
Min
3

Billing Hours

Billing Hours
Min
3

Lecture Hours

Lecture Hours
Min
3

Number Of Repeats
4

Pre-Requisites

No Requirements