



Oakland University

Graduate Catalog - 2026 - 2027

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Welcome

Welcome to the online Oakland University Graduate Catalog.

All data in the Oakland University Graduate Catalog reflects information as it was available at the publication date. Changes and updates to the Graduate Catalog made after the publication date are posted in the Addendum to the Graduate Catalog.

NOTICE: The reader should take notice that while every effort is made to ensure the accuracy of the information provided in the Graduate Catalog, Oakland University reserves the right, in its sole and exclusive discretion, to make changes to the Graduate Catalog at any time without prior notice. Oakland University provides the information in the Graduate Catalog solely for the convenience of the reader and expressly disclaims any obligations which may otherwise be stated, implied, or inferred. This Graduate Catalog, in its entirety or in its component parts, is not a contract and cannot be utilized, construed, or relied upon as a contract.

It is the responsibility of each student to be aware of and understand University regulations as published.

Oakland University is a legally autonomous state institution of higher learning. Legislation creating Oakland University as an independent institution, separate from Michigan State University, was established under Act No. 35, Public Acts of 1970. The university is governed by an eight-member board of trustees appointed by the governor with the advice and consent of the Michigan Senate.

Oakland University, as an equal opportunity institution, is committed to compliance with all federal and state laws prohibiting discrimination. Oakland University prohibits discrimination on the basis of race, sex, color, religion, national origin or ancestry, age, height, weight, familial status, marital status, disability, creed, sexual orientation, veteran status, and other prohibited factors in employment, admissions, educational programs, and activities. Inquiries or complaints should be addressed to: Director, [Title IX and Compliance](#), Oakland Center, Suite 150, 312 Meadow Brook Rd. Rochester, MI 48309-4454.

Oakland University is accredited by the North Central Association of Colleges and Schools Commission on Institutions of Higher Education (30 N. LaSalle St., Suite 2400, Chicago, Illinois 60602-2504, 800-621-7440).

Oakland University Overview

To find more information, visit [About Oakland University](#)

Role and Mission

Mission: *Oakland University cultivates the full potential of a diverse and inclusive community. As a public doctoral institution, we impact Michigan and the world through education, research, scholarship and creative activity.*

Vision: *Oakland University will unlock the potential of individuals and leave a lasting impact on the world through the transformative power of education and research.*

As a state-supported institution of higher education, Oakland University has a three-fold mission. It offers instructional programs of high quality that lead to degrees at the baccalaureate, master's and doctoral levels, as well as programs in continuing education; it advances knowledge and promotes the arts through research, scholarship and creative activity; and it renders significant public service. In all its activities, the university strives to exemplify educational leadership.

Instruction

Oakland University provides rigorous educational programs. A strong core of liberal arts is the basis on which undergraduates develop the skills, knowledge and attitudes essential for successful living and active, concerned citizenship. A variety of majors and specialized curricula prepare students for post-baccalaureate education, professional schools or careers directly after graduation. Each program provides a variety of courses and curricular experiences to ensure an enriched life along with superior career preparation or enhancement.

The university offers master's programs that meet demonstrable needs of Michigan residents and maintain excellence. Innovative doctoral programs serve needs that are not adequately met elsewhere in the state.

Offerings in continuing education provide Michigan residents with high-quality coursework for professional development and personal enrichment.

Oakland University is selective in its admission standards and seeks both traditional and nontraditional students, ensuring equal opportunity to all who can profit from its offerings. While serving principally Michigan residents, it welcomes qualified applicants from other states and countries. A special effort is made to locate and admit disadvantaged students with strong potential for academic success and to provide the support conducive to the realization of that potential. The faculty and staff cooperate with nearby community colleges to ensure that their students who seek to transfer to Oakland University are well prepared for work at a senior college. In recruiting and admitting students, enrollments are not permitted to exceed numbers consistent with preserving the high quality of instruction.

The university strives to remain current and relevant through an adequate program of continuing faculty development and the exploration of innovative schedules, methods and curricular design in keeping with the various needs of its diverse students, many of whom commute, work or are older than the traditional college-age student.

Oakland University offers, and will continue to offer, only those programs for which adequate resources and well-prepared faculty are available and for which a demonstrable need is expressed through the attraction of qualified students.

Research and scholarship

Oakland University assumes an obligation to advance knowledge through the research and scholarship of its faculty and students. The university's research and scholarship mission takes expression in a variety of forms ranging from basic studies on the nature of things to applied research directed at particular problems to contributions to literature and the arts. Within its means, the university provides internal financial support for research and scholarship. Simultaneously, it pursues with vigor external sources of support. Research institutes, financed primarily by outside grants, make an important contribution to this mission.

In addition to their intrinsic value, research and scholarship reinforce the instructional mission of the university. Wherever possible, students are involved in research projects, and the results of research and scholarship are integrated into related courses of instruction.

In carrying out its research and scholarship mission the university seeks especially to be responsive to the needs of Michigan, particularly of the populous southeastern sector. Application of research and scholarship to problems and concerns of the state's business and industry and to its scientific, educational, governmental, and health and human service agencies serves also to reinforce the public service role of the university.

Public service

Oakland University serves its constituents through a philosophy and program of public service that is consistent with its instructional and research missions. It cooperates with businesses, governmental units, community groups and other organizations on research, technical development and problem-solving enterprises in an attempt to apply the expertise of the university to the issues of society in general or the region in particular so as to further enhance the quality of life in the service areas of the university. It attempts to maintain the degree of flexibility necessary to respond to rapidly changing needs with innovative instruction, research and other services. It makes its facilities available for a multitude of activities of agencies and community groups whose purposes are compatible with the mission of the university. It provides access to its programs and campus, insofar as is consistent with the role and scope of the institution, for the recreational and physical enrichment of area citizens. Cultural enrichment is provided for the community through the Meadow Brook enterprises, on- and off-campus presentations by faculty and students and other campus events. The university aims to provide a model of socially responsible decision-making and ethical institutional behavior, recognizing that institutional strength derives from an effective interaction with the institution's diverse external environs.

Student Development

In direct support of its academic mission, Oakland University provides basic services and experiences that integrate cognitive learning with the personal growth of the individual student in the emotional, social, physical, cultural, ethical and interpersonal domains. In so doing, the university seeks to facilitate the development of those personal skills that will contribute to informed decision making and productive citizenship. This objective is accomplished through a variety of student enterprises, including campus organizations, athletics, and other sponsored activities and events.

Key to its achievement is the provision of a governance system in which students play a meaningful role in the institutional decision-making processes.

The university takes particular cognizance of its considerable enrollment of older and nontraditional students and provides advising, counseling, and other services of special value to such students in effecting career changes and developing additional personal competencies. Through the maintenance of complementary academic and extracurricular environments, Oakland University assists students in the realization that life is a continuum of growth, change, and adaptation and provides them with the skills essential to the achievement of their fullest potential.

Graduate School at Oakland University

Oakland University Graduate School

O'Dowd Hall, Room 520 ([map](#))
586 Pioneer Drive
Rochester, Michigan 48309-4481
(248) 370-2700 • Fax (248) 370-3226

Oakland University Graduate School is dedicated to academic excellence in graduate education at Oakland University and advocates for support for graduate programs and graduate students. Under the direction of the Vice Provost for Graduate Education and working in consultation with the Graduate Council of the University Senate, Oakland University Graduate School has responsibility for ensuring the highest standards in student admission; for providing academic records management, academic standing and degree services for currently enrolled students; and for the authorship, maintenance and oversight of graduate policy and standards that promote high quality in educational programs and curricula.

Oakland University Graduate School works with faculty, academic departments and the deans of the college and schools to recruit and develop a graduate student body across disciplines and professional fields reflective of academic strength and the university's commitment to diversity, and to design programs to support student achievement and success.

Oakland University Graduate School also partners with departments and university governance in program review, accreditation, registration, and evaluation efforts conducted locally and by external authorities, and thereby contributes to the ongoing campus-wide commitment to assessment.

Graduate Governance

Oakland University graduate governance is shared by several decision-making bodies, each with areas of authority and responsibility. The following provides a guide to these decision-making bodies and helps to explain how the policies and procedures that govern graduate education are created and managed at Oakland University.

Board of Trustees

Oakland University is governed by an eight-member **Board of Trustees** appointed by the governor to serve eight-year terms. The board provides general supervision of the university, including control and direction of all expenditures from the institution's funds. The board also appoints the university president as well as the secretary to the board and treasurer.

University Senate

The **University Senate** is an all-university governance body whose membership includes administrative officers, students and faculty members elected for two-year terms to represent their academic units. The Vice President for Academic Affairs is its presiding officer. It serves as a legislative forum that meets monthly during the academic year. The Senate recommends new degree programs to the president and the board and must approve the constitutions of colleges and schools. It determines academic policies and provides opportunity for public deliberation on issues of importance to the university.

Graduate Council

Oakland University's Graduate Council is a permanent standing committee of the **University Senate**. It makes recommendations to the Senate regarding graduate study. The Senate reviews the recommendations of the Council and submits its recommendations to the Provost and President. The full list of Graduate Council charge is listed on the [Senate Committee Charges webpage](#).

Graduate Catalog

The Graduate Catalog is the listing of academic programs, degree requirements, policies, and related information. All data in the Oakland University Graduate Catalog reflects information as it was available at the publication date.

Graduate Degree Programs

Graduate programs, with philosophical foundations in the university's role and mission, are directly linked to the research, scholarship and public service activities of the university. New knowledge is produced and directed toward the solution of technological, social, economic and political problems and issues. Students, educated in intellectual inquiry and critical analysis, are full partners in graduate programs structured to maximize personal growth and achievement as specific career-related goals are obtained. Dynamic relationships with regional companies provide real advantages in pursuing career options through work-study, internships, project involvement and community action.

Program Development and Review

New programs are developed along established **guidelines** and within the framework of the university's role and mission statement. The approval process is monitored by Oakland University Graduate School. It includes evaluation by and endorsement from several designated internal and external bodies. Once in place, graduate programs are reviewed on a regularly scheduled basis by faculty program review committees, Oakland University Graduate School and Graduate Council. At the time of publication of this catalog, several programs are in various stages of review. Program or course changes resulting from these reviews will be announced. Students should maintain contact with their advisers and Oakland University Graduate School to be fully aware of the current status of programs to which they have been admitted.

Accreditation

University Accreditation

Oakland University is accredited as a doctoral degree-granting institution by the Higher Learning Commission of the North Central Association of Colleges and Schools:

Higher Learning Commission of NCA

North Central Association

230 S. LaSalle Street, Suite 7-500

Chicago, IL 60604

Phone: (800) 621-7440 / (312) 263-0456

Fax: (312) 263-7462

- Accreditation - 1966 to present
- Last comprehensive evaluation, 2-4-2019
- Next comprehensive evaluation, 2-28-2029
- II programs: B, M, S, D (Bachelor, Master, Specialization, Doctorate)

Curricula and Program Accreditation

In addition, specific programs and curricula are accredited individually by specialized or professional accrediting agencies. The principal accreditation agencies are as follows:

Arts and Sciences

Chemistry: American Chemical Society*

Linguistics: American Association of Intensive English Programs

Music: National Association of Schools of Music

Political Science (M.P.A.): National Association of Schools of Public Affairs and Administration

Business Administration

Accreditation Council of the American Assembly of Collegiate Schools of Business (AACSB)

Education

Teacher Education Programs: National Council for Accreditation of Teacher Education

Graduate Counseling: Council for Accreditation of Counseling and Related Educational Programs

Engineering*

Division of Engineering (undergraduate): Accreditation Board for Engineering and Technology - Engineering (ABET)

Health Sciences

Physical Therapy: Commission on Accreditation in Physical Therapy Education (CAPTE)

Nursing

Commission on Collegiate Nursing Education (CCNE)

Nurse Anesthesia: American Association of Nurse Anesthetists (Council on Accreditation of Nurse Anesthesia Educational Programs)

*Accreditation limited to only one degree per level per institution

Clery Act and Title IX

Clery Act and Title IX

Program Policy

Program Policy

Undergraduates in Graduate Courses

Upper-division undergraduates with appropriate credentials, permission of their academic adviser and the department offering the course, may enroll in 5000-level graduate courses and use them toward their baccalaureate degrees.

Once approved, the graduate courses become part of the undergraduate degree program and used to satisfy the baccalaureate credit requirements. Such graduate courses may not be used in the future to fulfill the credit requirements of a graduate degree unless the undergraduate student is admitted to an approved Combined Bachelor/Master degree program. All undergraduate students considering enrollment in a graduate course must obtain approval from their academic adviser and their financial aid adviser well in advance of the planned semester of enrollment.

An undergraduate student enrolled in a graduate course is subject to all university regulations affecting undergraduates. The university, by allowing a student to earn graduate credit while still an undergraduate, makes no guarantee of the student's admissibility to any graduate program.

Non-degree Graduate Credit

An applicant holding a baccalaureate degree, who wishes to enroll in graduate courses but does NOT have immediate graduate degree objectives, may request graduate non-degree status (Professional Development).

Graduate non-degree students, who later decide to seek admission to a graduate degree program, must apply and satisfy all application requirements specified for the graduate program of interest.

Up to 12 credits, earned in the graduate non-degree status, would be eligible for review, approval and application toward a graduate program at a later date. Such graduate credits must comply with the requirements published in the Graduate Catalog under "Graduate Policies." Graduate courses completed in a graduate non-degree admission classification will appear on a graduate transcript.

The Transfer Credit Request for Oakland University Courses form is available on the Web site <https://www.oakland.edu/grad/>.

Previous Graduate Degree or Certificate Credit

In no case will credit earned in one master's degree or graduate certificate program be transferred to satisfy the requirements of a second master's degree or graduate certificate program. However, the faculty adviser may review the courses completed in the previous master's degree or graduate certificate program to determine Oakland University course equivalency. Those courses found equivalent to Oakland University courses which satisfy degree requirements in the second master's program may be eligible for course waiver/substitution. See the Course Waiver/Substitution section of the graduate catalog.

Doctoral degree programs, which define the minimum credit hours as coursework beyond the baccalaureate, may permit students who have previously earned a master's degree from Oakland University or another regionally accredited university, to reduce the credits required for the doctoral degree up to 32 credits. This policy does NOT pertain to post-master's doctoral degree programs, where an earned master's degree is required in advance of admission to the program. Students should refer to individual graduate program standards and requirements for details.

Transfer Credit

Students enrolled in a graduate certificate, master's, or doctoral degree program may transfer up to 49% of the credits required for the program, provided the transferred credits meet the requirements below. Credits to be transferred:

- are being transferred from a regionally accredited college or university in the U.S., or its equivalent from an international institution
- are verified by an official transcript
- are graduate level numbered 5000 or above (or equivalent) with satisfactory grades (at least 3.0, B, Satisfactory or Pass)
- have not been used for any other degree or awarded certificate
- have been taken within three years of when the graduate certificate will be earned or six years of when the master's degree or doctoral degree will be earned, except when revalidated* by the student's Oakland University graduate program and approved by the Graduate School .

*At least 51% of the credits required for the credential must be earned at Oakland University. Thus, if students are receiving a credit reduction because of a master's degree or graduate certificate that was awarded at another institution prior to entering the program, the number of credits that may be transferred to Oakland will be reduced. Students transferring credit must still take Oakland coursework evaluated with a letter grade in order to achieve the minimum GPA of 3.0 as transferred coursework does not factor into the Oakland GPA.

* Students should refer to individual graduate program standards and requirements for details.

Course Content

It is recognized that some students may have taken courses at another university that are equivalent in level and content to core or required courses in a graduate program. Under these circumstances, with graduate program approval, a core or required course requirement may be waived, allowing the student to substitute a more advanced graduate course which does not duplicate earlier academic content learning in the same area. Similarities in course titles do not necessarily mean the courses have similar content. To be justified as a waiver, the course should have the equivalent content and skill level as the course required for the Oakland University graduate program.

An approved waiver of content does not reduce the total number of credit hours needed to satisfy program requirements. Waiver of content is approved for academic study of the subject. It is not approved for experiential background in the subject area. It should be noted that not all graduate programs permit waiver of content for core course requirements.

Course Waiver/substitution

Students admitted to a graduate program are expected to complete the program requirements according to the Oakland University Graduate Catalog. On occasion, a required course in a graduate program may not be available or may no longer be offered due to program changes. With advance approval from the faculty adviser, graduate program, and Oakland University Graduate School, the student may request a course requirement be waived and another Oakland University course substituted. The determination of courses suitable for substitution rests with the graduate program.

When there is just cause for the substitution, the student must submit a **Course Waiver/Substitution Petition** form to their faculty adviser and obtain all approvals for the course substitution prior to enrolling in the proposed course. A course substitution is not a statement of equivalency between two courses; it is a singular substitution for one student. Approval of a course substitution does NOT override any other enrollment criteria such as prerequisites.

Repeating Graduate Courses

Graduate students, with the permission of their program faculty and the Graduate School, may repeat a course up to two times to improve a non-passing grade earned in a prior enrollment. The original grade for the course will remain on the student transcript, but the last grade earned in the course will be used in computing the grade-point average. The repeat course must be graded the same (numeric/letter or pass/fail) as the first course attempt.

Graduate students must complete the eForm **Petition to repeat a course** (for grade improvement) to obtain approval from their program faculty and the Graduate School. The time required to review the petition and provide final decision varies by each graduate program. A graduate student should plan in advance to be assured the petition is approved BEFORE the intended semester of enrollment. Filing of this form is the responsibility of the student.

Time Limit for Completing Degree

Graduate certificate and master's degree

Credit earned more than three years before a graduate certificate or six years before a master's degree is to be granted, may not be used to fulfill the degree or program requirements. This means, for example, that a course taken in Fall 2007 may be used to satisfy degree requirements until the end of the Fall 2013 semester and may be used to satisfy graduate certificate requirements until the end of the Fall 2010 semester.

Clinical or Practice Focused Doctoral Degree

Time limits for clinical or practice focused doctoral programs are found within the program descriptions. Doctoral students with credits earned more than seven years before the degree is granted must request an extension from the academic dean and Oakland University Graduate School.

Ph.D. Degree

The time limit for completing a Ph.D. degree policy requires a student to achieve candidacy within six years from the first course enrollment in the Ph.D. degree program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense). The maximum time limit for completing a Ph.D. degree is no more than 10 years from the term of the first course enrollment in the doctoral program.

Extension of Time to Complete Degree

Graduate Certificate and Master's Degree

A student who fails to complete all requirements for the graduate certificate or master's degree within 6 years may petition his or her graduate program for an extension of time to complete the outstanding requirements. The student must submit the **Request for Time Extension to Complete Master's Requirements** form to their graduate program.

The maximum extension of time is two years; however, some graduate programs may reduce the maximum period of extension.

The graduate program forwards the completed Request for Time Extension to Complete Master's Requirements form to Oakland University Graduate School. Approved requests must include an updated Plan of Study and **revalidation** or denial of Oakland University courses that will be more than six years old at the time of graduation.

Oakland University Graduate School will communicate in writing the final decision to the petitioner with a copy sent to the student's graduate program.

International students should first contact the **International Students and Scholars Office** to discuss program extension regulations monitored through SEVIS.

Clinical or Practice Focused Doctoral Degree

A student who fails to complete all degree requirements within seven years may petition his or her graduate program for a one-year extension of time in which to complete the outstanding requirements. The student must submit the Extension of Time to Complete Degree request form to their graduate program.

The graduate program will forward the completed Extension of Time to Complete Degree request form to Oakland University Graduate School. Approved requests must include an updated Plan of Study, a time table listing specific goals to be accomplished at various points during the extension period and revalidation or denial of Oakland University courses that will be more than seven years old at the time of graduation.

Oakland University Graduate School will communicate in writing the final decision to the petitioner with a copy sent to the student's graduate program. A student who exceeds the maximum time limit of 7 years from the term of the first course enrollment in the program may be placed on academic probation and subject to dismissal from the program.

International students should first contact the [International Students and Scholars Office](#) to discuss program extension regulations monitored through SEVIS.

Ph.D. Degree

A student who does not achieve candidacy within six years will be placed on academic probation and subject to dismissal from the Ph.D. program unless the program petitions Oakland University Graduate School to grant a [Leave of Absence](#) or request an extension because of extenuating circumstances. If a leave of absence is granted to a Ph.D. student in precandidacy status, the time limitation for completing coursework and passing comprehensive exams will be extended by the same time as the length of the approved leave - two semester maximum.

A Ph.D. student, advanced to candidacy who has not completed the degree within 10 years, must request an extension, with the support of the department, the Academic Dean and Assistant Dean of Oakland University Graduate School.

A student advanced to candidacy who exceeds the maximum time limit of 10 years from the term of the first course enrollment in the Ph.D. program may be returned to precandidacy status OR placed on academic probation and subject to dismissal from the program.

Revalidating Oakland University Overage Courses

Often the knowledge content of courses completed eight years and beyond is no longer current enough to be considered relevant toward the degree. Therefore, graduate credit earned more than eight years prior to the date on which the degree is to be granted may not be applied to meet graduation requirements. It is possible, however, that out-of-date Oakland University credit may be revalidated, subject to departmental and Oakland University Graduate School approval.

To revalidate out-of-date Oakland University credit, the student must submit an Extension of Time to Complete Degree form. It is the responsibility of the student submitting the request to document how he or she has brought his or her knowledge up to date for each course that was taken beyond eight years. This may include documenting the following: relevant work activities, professional development or continuing education credits, conference attendance, special readings or the passing of qualifying or comprehensive examinations.

In cases where activities have not occurred or where documentation does not exist, it is the responsibility of the adviser to specify how the student will update his or her knowledge in the specific course area(s) for each course completed beyond eight years. The adviser may propose the student register to repeat Oakland University course(s), pass a competency examination for Oakland University course(s), OR be assigned special activities, such as seminars or additional readings in specific course areas. The proposed special activity must include an evaluation of student mastery and be assigned a grade through competency credits.

Revalidating Course Credit

Competency examinations are offered by some departments and, with the approval of Oakland University Graduate School, can be used to revalidate out-of-date Oakland University credit which is beyond the eight-year time limit. Students should consult their advisers for specific information and approval. Students must register during the normal registration period. University legislation stipulates that the examination must be taken not more than six weeks after the close of registration.

Academic Standing

The policies and requirements published in the Graduate Catalog represent minimum standards adopted by the Graduate Council for academic standing. In the event that a graduate program adopts standards higher than set forth in the catalog, the graduate program standards will take precedence over the relevant sections of the catalog.

Good academic standing

To be in good academic standing, a graduate student must meet both the standards set by the degree program in which the student is enrolled and those set by the Graduate Council.

1. The graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the applicable degree program and by the Graduate Council.
2. The graduate student must maintain an overall grade-point average of 3.0 (B) or better.
3. The graduate student admitted to a graduate program with limited standing must complete the academic conditions specified in the written offer of admission within three academic terms (fall-winter; summer excluded)

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program.

Academic progress

Graduate program units conduct a review of all graduate students' academic progress in order to identify problems, evaluate chances of successful completion, and encourage timely progress. Expectations include successfully completing critical non-course academic milestones, within the time limits defined by university regulations, graduate council policies and graduate programs.

A student making inadequate progress is placed on academic probation and provided a clear, written explanation of the problems, along with specific recommendations to remedy problems in a timely fashion.

Grade-point average

Overall GPA requirement

To remain in good academic standing, all students admitted to a graduate degree or graduate certificate program at Oakland University must maintain an overall GPA of 3.0 (B) or better. At the end of any semester, a graduate student with an overall GPA below 3.0 (B) is placed on academic probation and provided a second and third (final) probationary semester. A student is subject to dismissal upon failure to raise the cumulative GPA to 3.0 (B) or better. by the end of the third (final) probationary semester.

Failure to receive notification does not alter the student's dismissal status. Graduate students are expected to monitor their academic standing and progress.

Individual course grade requirement

No individual course grade below C (2.0) may be applied toward a graduate degree or certificate program.

At the end of any semester, a graduate student who earns an individual course grade below a B (3.0) will be reviewed by the graduate program unit and subject to academic warning, probation, or dismissal, according to published program requirements.

Academic probation

The purpose of placing a student on probation is to allow the student time to correct deficiencies. Students identified as not meeting the academic standards and/or requirements for good academic standing must be provided with written notice by the program, which includes acknowledgment of receipt by the student with a copy to Oakland University Graduate School, of their deficiencies, corrective measures, a timeline for completion, and the consequences of not removing the deficiencies.

The decision of a graduate program to remove a student from an internship, practicum, clinical site or service-learning placement must be appealed within the academic unit.

These academic procedures should be followed PRIOR to a graduate program recommendation to dismiss a student from a degree program. In Ph.D. programs, advancing candidacy is used to evaluate students in the degree program prior to becoming a candidate for the degree.

Academic dismissal

The graduate program may recommend academic dismissal for unsatisfactory academic performance, lack of academic progress toward degree or failure to meet graduate program requirements within established time limits. Oakland University Graduate School, in consultation with the graduate program, may also recommend a dismissal for these reasons.

Dismissals for student behavioral issues or academic conduct are covered by separate policies and procedures.

Recommendation for Dismissal

Students placed on academic probation are provided an academic probation period to improve performance. After the probationary period has expired, the student's academic performance will be evaluated by the graduate program unit. Students who do not return to good academic standing are subject to academic dismissal.

A dismissed student is not in good standing and is not eligible to enroll as a student in that graduate program during the dismissal period. A student who has been academically dismissed may be eligible to apply to a different Oakland University graduate program as follows:

- The student may not apply to the graduate program from which the student was dismissed; and
- The student is granted no guarantee of admission to a different graduate program.

Responsibility of graduate program

To initiate academic dismissal, the graduate program must provide Oakland University Graduate School written rationale for the action, as well as a copy of the program handbook or other written guidelines that include a description of the procedures provided to the student. The graduate program does NOT dismiss the student from a degree program but makes the recommendation to Oakland University Graduate School which reviews the recommendation and finalizes the action.

Responsibility of Oakland University Graduate School

The responsibility of Oakland University Graduate School is to affirm that the dismissal procedures followed by the academic department comply with Graduate Council and graduate program policy, not to review faculty judgments as to the quality of a student's academic performance.

The Assistant Dean of Oakland University Graduate School reviews the documentation submitted by the academic department to affirm adherence to published dismissal procedures. Finding no violation of procedural due process and affirming the process was deemed fundamentally fair, the recommendation for academic dismissal submitted by a graduate program will be confirmed. Oakland University Graduate School will provide written notice of the decision to the graduate program and to the student within three (3) weeks of receiving the written recommendation to Oakland University Graduate School from the graduate program. In the event of a reversal, such written notice shall contain a statement of the basis on which the decision was made.

Appeal procedure for dismissal

The appeal procedure for academic dismissal is a closed, internal proceeding. As such, there is no institutional attorney or other representation at a hearing. The decision to reinstate a student will be made in the sole or absolute discretion of Graduate Study and the Dean of Graduate Education.

In general, reinstatement may be granted in cases where either the intent of the procedure was not followed or where there are additional, extenuating circumstances that affected the student's performance that were unknown at the time of the initial recommendation to Graduate Study.

Step 1

Following receipt of a letter of dismissal from Oakland University Graduate School, the student has three months to appeal the dismissal. If the student wishes to appeal, the student must send a letter via email to the Dean of Oakland University Graduate School (<mailto:graddean@oakland.edu>), with a corresponding copy to the Program Coordinator of the relevant graduate program or Chair of the department. The appeal must cite an appropriate cause for consideration of the appeal, providing information on the reason(s) for reinstatement and substantial evidence or extenuating circumstances in support of reinstatement. Disagreements over evaluation of academic quality or the decision of a graduate program unit to remove a student from an internship, practicum, clinical site, or service-learning placement must be appealed within the academic graduate program.

Step 2

Within thirty (30) calendar days of receipt of a student's appeal, the Dean of Oakland University Graduate School will seek written input from the Chair or Program Coordinator of the relevant graduate program or department. The graduate program or department has fourteen (14) calendar days to send written input to the Dean of Oakland University Graduate School. The Dean of Oakland University Graduate School will review the case, based upon the appeal and written input from the graduate program and/or department.

The Dean of Oakland University Graduate School may either: 1) uphold the dismissal status or 2) reverse the decision of the graduate program and/or department.

If the Dean of Oakland University Graduate School is satisfied that there is no valued basis for reinstatement and that the proceedings regarding the student have met the stated procedure and requirements, the appeal for reinstatement will be denied. If there is a reason to overturn the dismissal, the student will be reinstated on academic probation until such time as the student meets all academic requirements and standards or is returned to good academic standing.

The decision of the Dean of Oakland University Graduate School is final.

Reversal of department decision to dismiss

Should the Dean of Oakland University Graduate School find that the graduate program unit or department did not follow proper procedures, or unprofessional conduct is a concern which might have affected the graduate program decision of dismissal, the appeal may be subject to reversal.

In such a case or in any other case deemed appropriate by the Dean of Oakland University Graduate School, advice from the Graduate Council Subcommittee on Academic Graduate Conduct may be sought at the discretion of the Dean of Oakland University Graduate School.

Following the investigation or advice from the Graduate Council Subcommittee on Academic Graduate Conduct and the final review by the Dean of Oakland University Graduate School, the result will be conveyed in writing to the student, the graduate program unit, and the dean of the respective College or School

Master's Degree Enrollment Policy

Minimum enrollment policy for master's students

In order to maintain active student status graduate students must enroll in a minimum of one course in either the fall, winter, or summer semester of each academic year starting in the first semester in which a student is enrolled at Oakland University. The course must be one that is required by their academic program and count toward the degree. This includes semesters in which a thesis or graduate project is completed and will apply until all degree requirements are met.

Should circumstances arise that require an interruption in graduate study, the student must apply for a Leave of Absence. A student on official Leave of Absence is not required to register for a course during the fall, winter, or summer semesters. The benefits of applying for a leave of absence are (1) the student's time-to-degree is extended while the student is covered by the leave of absence; (2) the student's status as a cohort member is maintained during a leave of absence; (3) the student will not be required to reapply for admission when the leave of absence is concluded.

There are some negative effects of a leave of absence also: (1) the student is not entitled to any services from the university during the leave, including demands upon faculty or adviser time; (2) email and library privileges will be suspended; (3) and receipt of fellowship, assistantship or financial aid will be suspended during a Leave of Absence.

Ph.D. Student Policies

Ph.D. education has two stages. During the first stage (precandidacy) a Ph.D. student enrolls in preliminary coursework to prepare for advanced research. A student who successfully completes this coursework (excluding dissertation credits) and meets program requirements, usually including comprehensive (qualifying) examinations, is advanced to the second stage (candidacy).

Time to degree

The maximum time limit for completing a Ph.D. degree is no more than 10 years from the term of the first course enrollment in the Ph.D. program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Time to candidacy

A student who does not achieve candidacy within six years will be placed on academic probation and subject to dismissal from the doctoral program unless the program petitions Oakland University Graduate School to request an extension because of extenuating circumstances. A student advanced to candidacy who exceeds the maximum time limit of 10 years from the term of the first course enrollment in the doctoral program may be returned to precandidacy status OR placed on academic probation and subject to dismissal from the program.

The Continuous Enrollment policy remains in effect through the entire Ph.D. program. Should circumstances arise that may cause an interruption in graduate study, the student must apply for a Leave of Absence. If a Leave of Absence is granted to a doctoral student in pre-candidacy status, the time limitation for completing coursework and passing comprehensive exams will be extended by the same time as the length of the approved leave. A Ph.D. student, advanced to candidacy, who has not completed the degree within 10 years, must request an extension with the support of the department, from the Academic Dean and Assistant Dean of Oakland University Graduate School.

Each Ph.D. program has its own unique requirements, including timelines, for which the student is responsible. These include the monitoring and evaluating of progress toward the degree. A student not making adequate progress may be dismissed from the Ph.D. program based on the recommendation of the department, approval by the Academic Dean and Assistant Dean for Oakland University Graduate School.

Some financial aid has its own requirements concerning time and/or credits per semester. The student is responsible for adhering to these requirements. Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements while working on the dissertation (e.g., Veterans Affairs, Immigration and Naturalization Service for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

A doctoral student who does not maintain continuous enrollment and has NOT been granted an official leave of absence is subject to termination of admission to the program based on the recommendation of the department, approval by the Academic Dean and Assistant Dean of Oakland University Graduate School.

Doctoral residency requirement

All Ph.D. programs have residency requirements. Students are advised to consult the appropriate section of this catalog that pertains to their particular degree program. All Ph.D. students are required to register for at least one credit of coursework every fall and winter semester after their admission to a program. In cases where the student has completed all of the formal coursework for the degree, and advanced to candidacy, the student must register for doctoral or dissertation research. The student must be registered for the semester in which they defend their dissertation.

Continuous enrollment

The continuous enrollment policy for Ph.D. students requires continuous enrollment of graduate students for at least one credit hour each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Continuous enrollment is met by registration in a graduate-level course relevant to the student's academic program. Ph.D. students who have completed required credits toward their degree must register for doctoral or dissertation research to satisfy the continuous enrollment requirement.

Should circumstances arise that may cause an interruption in graduate study, the student must apply for a Leave of Absence. A student on official Leave of Absence is not entitled to any services from the university during the leave, including demands upon faculty or adviser time, or receipt of fellowship, assistantship, or financial aid.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, United States Citizenship and Immigration Services (USCIS) for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Doctoral students who do not maintain continuous enrollment and have not been granted an official Leave of Absence are subject to termination of admission to the program based on the recommendation of the department and approval by the Academic Dean.

Leave of absence

Oakland University recognizes a variety of circumstances may require a doctoral student to interrupt progress toward a graduate degree. Ph.D. students, temporarily unable to continue their programs, must request a "Leave of Absence" for up to two (2) consecutive semesters (Fall/Winter or Winter/Fall).

Request for Leave of Absence

Doctoral students who are considering a Leave of Absence should seek immediate guidance from their adviser or doctoral committee chairperson. Whenever possible, the request should be made in advance of the anticipated leave or as soon as possible after commencement of an emergency leave. Requests for Leave of Absence will not be granted retroactively. Students who are absent beyond the end of an approved Leave of Absence will be required to apply for readmission to the program.

A student granted a Leave of Absence will have his or her time-to-completion of degree extended by the amount of time granted in the leave of absence - two semester maximum. A student on official Leave of Absence is exempted from the requirements set forth in the Continuous Enrollment Policy. While in this status, students are not entitled to any services from the university, including demands upon faculty or adviser time, or receipt of fellowship, assistantship, or financial aid during their authorized leave. Leave of Absence Request forms are available through Oakland University Graduate School <https://www.oakland.edu/grad/>.

Admission to doctoral candidacy

Preliminary or Qualifying Exam

The Preliminary or Qualifying Examination serves as the last major step toward the Ph.D. degree, except for the completion and defense of the dissertation. The purpose of the examination is to determine the readiness of a pre-candidate to perform dissertation research. Successfully completing preliminary coursework (excluding dissertation credits) and passing the examination constitutes formal Admission to Candidacy. The preliminary examination is distinct from the oral defense of the dissertation project.

Oral defense of dissertation

When dissertation research involves human subjects, experimental animals, recombinant DNA, or the use of radioactive substances, special approval is required, as explained under the section Protective Research Standards.

After the student has completed all other requirements for the Ph.D., including the writing of a dissertation, the committee will approve an oral defense of the dissertation to be scheduled. The Graduate School must be notified at least two (2) weeks in advance of the defense date, time, and location of the public presentation and defense to ensure public notification of the campus community. The public presentation of the dissertation must be scheduled for the semester of the expected date of graduation, during regular office hours, and held in University facilities that are readily accessible to all members of the Dissertation Committee and others attending the examination. Oakland University Graduate School will publicize the defense on the Web site www.oakland.edu/grad. Requests for exception must be submitted in writing to Oakland University Graduate School.

Further research, analysis, or rewriting may be required by the committee as a result of discussions arising during the defense.

A student must be registered in the term of the oral defense of the dissertation and in good academic standing.

Submission of dissertation

After the examination committee has approved in writing the successful defense of the dissertation, the student submits three (3) approved copies to Oakland University Graduate School. The dissertation must comply with the University format standards as published in the ["Guide to the Preparation of Theses and Dissertations."](#)

ProQuest publishing requirement

Oakland University Graduate School requires every doctoral dissertation to be published for the purpose of archiving the significant work of Oakland University graduate students.

Ph.D. students completing a dissertation are required to publish their dissertations through Proquest and to pay the appropriate publishing fee. Publication of the doctoral dissertation through Proquest is a graduation requirement for all Oakland University Ph.D. candidates. Dissertations that have been approved for publication by the Thesis/Dissertation Coordinator can only be submitted to Proquest by Oakland University Graduate School.

Survey of Earned Doctorates (SED)

Ph.D. students must participate in the Survey of Earned Doctorates by submitting the online SED questionnaire during the dissertation final approval meeting with the Dissertation Coordinator. The Survey of Earned Doctorates (SED) is an annual census of individuals who were awarded a research doctorate from an accredited U.S. institution. The study is being conducted on behalf of the National Center for Science and

Engineering Statistics of the National Science Foundation; the National Institutes of Health; the U.S. Department of Education; and the National Endowment for the Humanities. SED data are being collected under contract by RTI International,¹ a nonprofit research organization based in North Carolina.

Credit and Course Policies

Credit

At Oakland University, the unit of credit is the semester hour. A credit (credit hour) is defined as one class hour per week or its approved equivalent requiring a minimum of two hours of preparation per week carried through a semester. *No more than one graduate credit will be awarded per week of instruction.*

Course load

The University considers full-time for graduate students as enrollment in 8 credits in each fall and winter semesters. Graduate Assistants are required to register for at least 8 credits each semester of their appointment.

The maximum number of credits for fall and winter semesters is 12 credits. No graduate student may register for more than 12 credits, without written authorization. Students may request an exception to University policy by completing the online form Request to Exceed Maximum Credits.

Course numbering system

Oakland University assigns a four-digit number to courses according to the level of the course. Credit toward a graduate degree shall be earned through courses at the 5000 level or above.

- Courses numbered 5000 and above are primarily for graduate students. Qualified undergraduates may enroll in a class numbered 5000 to 5999 provided they have obtained written permission to do so from their academic adviser and the department or school offering the class.
- Courses numbered 6000 and above are restricted to graduate students. Students admitted to a Combined Bachelor/Graduate Degree program are eligible to enroll in a class numbered 6000 to 6999.
- Courses numbered 7000 and above are primarily for doctoral students, but qualified master's students may enroll provided they have obtained permission from the department or school offering the class.
- Courses numbered 9000 and above are restricted to doctoral students.

Slash courses (4000/5000)

Slash courses (4000/5000) are courses simultaneously offered at both the upper-division undergraduate level and graduate level within the same department. Undergraduate students requiring undergraduate credit must register for the 4xxx course and graduate students requiring graduate credit must register for the 5xxx course. Only 4000-level undergraduate courses may be slash-listed with 5000-level graduate courses.

Slash courses must provide students who are enrolled for the 5000-level credit with education and training that satisfies all of the following conditions. Approval of slash-courses will be contingent on meeting the following requirements:

- The courses must contain the same title, credits, description, prerequisites, and grade options;
- Credits for slash courses must be the same for both course components;
- Slash courses must provide two separate syllabi, undergraduate and graduate, each clearly differentiating learning outcome criteria for 4000-level and 5000-level credit;
- Students enrolled for the 5000-level credit component must present work that is significantly more rigorous in both depth of study and methodology (analysis, synthesis, and evaluation of knowledge or skills) contrasted to the students enrolled for the 4000-level credit component;
- When making qualitative evaluations of students, the instructor must hold students enrolled for the 5000-level credit component to a standard higher than those students enrolled for the 4000-level credit component;
- A distinctive statement must be included at the end of the catalog course description that identifies the 4000-level and 5000-level course as a slash course;
- Students may not register for one course (SYS 5469) if the other course has been completed (SYS 4469).

Grading Policies

Graduate grading system

Effective Fall 2018, the graduate grading system at Oakland University will be moving from a 32-point system of numerical grades to letter grades. To qualify for a graduate degree, a student must have an overall GPA of at least B (3.0) in all courses taken at Oakland University as a graduate student. No grade below C (2.0) may be applied toward a graduate degree. Many programs have more stringent grade requirements for credit and retention. Specific information may be found under the appropriate program area of this catalog. The new graduate letter grading system is described below.

1. Graduate letter grading system.

The transcript will continue to list a GPA for the current semester, a cumulative GPA and an overall GPA. Individual class grades will be letter grades rather than a GPA.

GRADE	QUALITY POINTS
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
F	0.0

2. The meanings of non-letter grades are as follows:

1. The **W (Withdraw)** grade is assigned by the registrar if a student withdraws officially from a course or all courses between the end of the no-grade period and the last day for withdrawal specified in the Schedule of Classes each term.
2. The **I (Incomplete)** grade is temporary and may be given only after the cut-off date for use of the (W) grade. It is used in the case of severe hardship beyond the control of a student that prevents him or her from completing course requirements. The student must be passing the course at the time of the request. The student's work to remove an (I) grade for credit courses and faculty submission of the grade must be completed within one year from the faculty grade submission deadline for the appropriate semester. If course requirements are not completed within one year and no semester has been registered for, the Incomplete (I) grade shall become permanent. A student who wishes to receive an Incomplete (I) grade in a course must present a Student Request for Incomplete (I) Grade form to the instructor by the day of the scheduled final examination. This form, which indicates the instructor's willingness or unwillingness to grant the (I) and the schedule he or she sets for completing the term's work, is available in department offices.
3. The **P (Progress)** grade is a temporary grade that may be given only in a course that cannot be completed in one semester. Prior approval must be obtained from the appropriate committee on instruction and the Oakland University Graduate School for each course in which (P) grades are to be assigned. The (P) grade is given only for satisfactory work. (P) grades must be removed within two calendar years of the date of assignment; otherwise, the (P) converts to a permanent Incomplete (I) which remains on the transcript.
4. The **S (Satisfactory)** grade is given in certain selected courses and is meant to imply 3.0 (B) or better. Courses in which S/U grading is used must be approved by the appropriate committee on instruction and the Assistant Dean of Oakland University Graduate School, who will notify the registrar.
5. The **U (Unsatisfactory)** grade is given to graduate students only when a course is graded S/U and implies a non-passing grade of less than 3.0 (B).

6. The **SP (Satisfactory Progress)** grade is a permanent grade that may be given only in selected research courses. The grade of (SP) is given for satisfactory progress made toward completion of a thesis, dissertation, or doctoral project. Courses in which (SP)/(NP) grading is used must be approved by the appropriate committee on instruction and the Assistant Dean of Oakland University Graduate School, who will notify the registrar.
 7. The **NP (Unsatisfactory Progress)** grade is a permanent grade that may be given only in selected research courses. The grade of (NP) is given for unsatisfactory progress made toward completion of a thesis, dissertation, or doctoral project.
 8. The **R** grade is a temporary grade assigned by the registrar in the absence of a grade from the instructor or in the case of the award of an inappropriate grade.
 9. The **Z** grade is assigned upon registration for a course as an auditor. The student's declaration of intention to audit is required at the time of registration, and it is understood that no credit for the course is intended for that term. An audit registration for a course is permitted only during the late registration period each term. Permission of the instructor to audit and admission to the university are both required before such a registration will be permitted. Regular tuition applies to all courses.
3. Individual class grades will appear on a student's transcript as letter grades and will be used to calculate the grade point average. **The transcript will continue to list a GPA for the current semester, a cumulative GPA, and an overall GPA. Individual class grades will be letter grades rather than a GPA.**

Incomplete (I) grade contract

An instructor may award an incomplete grade to a student whose work in a course has been qualitatively satisfactory, but who is unable to complete some portion of the work required because of illness or other circumstance beyond the control of the student.

Student responsibility

A student who wishes to receive an Incomplete (I) grade in a course must present a Student Request for Incomplete (I) Grade Contract to the instructor AFTER the cut-off date for awarding a (W) grade. The Incomplete (I) grade is offered entirely at the instructor's discretion as a temporary measure for extenuating circumstances beyond the control of the student.

Instructor responsibility

In awarding the temporary grade of Incomplete (I) for graduate courses, the instructor must complete the Student Request For Incomplete (I) Grade Contract submitted by the student requesting the Incomplete (I) grade. The contract will specify the work remaining to be completed. It must be signed by the instructor and the student and maintained by the department offering the course. An Incomplete (I) can remain in place on a student's transcript for a maximum of one year.

Appeal of final grade

The evaluation of academic work is the prerogative of the instructor and the rules for determining final course grades should be established by the instructor and given to the students in a course syllabus at the beginning of the semester. All final course grades assigned by instructors are considered final, except Incomplete (I) and Progress (P) grades.

The assignment of final course grades requires an appeal procedure to ensure that the rights and responsibilities of faculty and students are properly recognized and protected. The grade appeal procedure is not to be used to review the judgment of an instructor in assessing the quality of the student's work.

No changes to a final course grade will be approved on the basis of course improvement or re-examination.

Time line to appeal a final grade

A student who believes grounds exist for an appeal of a final course grade must complete the appeal process within the semester time limits specified in the table below AND within the time limits specified in the various steps below. These time limits represent the maximum time limit for a student to appeal a final course grade. In the event that a graduate program publishes more stringent time limits, the graduate program time limits will take precedence. Once the appeal process is initiated, the burden of proof is on the student. Written verification of each step below is critical.

Semester Final Course Grade Posted on SAIL	Maximum Time Limit to Complete Final Course Grade Appeal
Fall semester	End of subsequent Winter semester
Winter semester	End of subsequent Fall semester
Summer semester	End of subsequent Fall semester

Step 1 - Informal discussion with instructor

Student responsibility

Students who have questions about final grades for the semester are required to contact the instructor who issued the final course grade by e-mail or in writing to request a review of the grade.

STEP 1, an informal conference with the instructor, must be initiated no later than 10 working days after final grades are posted on SAIL to determine if an error has been made.

If the instructor is on leave, on sabbatical, or is not currently on the faculty during the time range stipulated in STEP 1, the student should contact the chair of the academic department that offered the course.

Instructor responsibility

The instructor must respond to the student within 10 working days of being contacted by the student and explain to the student how the grade was determined. If an error was made in calculating the grade, the instructor submits a Grade Change Request to the Office of the Registrar modifying the final grade.

If a resolution with the instructor is not reached (STEP 1), the student can initiate a Formal Grade Appeal Review (STEP 2). The grade appeal procedure is not to be used to review the judgment of an instructor in assessing the quality of the student's work. The burden of proof, however, rests with the student to demonstrate that the grade decision was made on the basis of any of the following conditions:

1. The student believes that the grade received conflicts with the grading policy on the syllabus;
2. The student believes that there is an error in calculation with the grade;
3. The student believes that the grade was given arbitrarily, or with capriciousness or prejudice.

Step 2 - Formal appeal

Chair of the academic department

Student responsibility

The STEP 1 review MUST be concluded before the student can initiate the Formal Grade Appeal Review.

The request for a Formal Grade Appeal Review of a final course grade must be submitted to the chair of the academic department that offered the course no later than 10 days after contact with the instructor.

The student must identify one of the three reasons permissible for the grade appeal review, and submit the Grade Appeal form, along with the following documentation:

1. A thorough explanation of the reason identified for this review, including any relevant written materials - letters, memos, e-mails, or notes;
2. A brief outline of the outcome of the grade review contact/meeting with the instructor;
3. A copy of the course syllabus outlining assignments, tests, and examinations, along with their respective weights to the final grade calculation; and
4. A demonstration of the error in calculation by which the final grade was determined.

Since the written appeal will be the basis for the Grade Appeal Review, the student should ensure that it is clear, complete, and inclusive of all documentation the student wishes to have considered in the appeal process. It is the student's responsibility to present written evidence that the instructor made an error or acted arbitrarily or capriciously in assigning the grade.

Chair responsibility

STEP 1 review MUST be concluded before the student can initiate the Formal Grade Appeal Review.

The chair of the academic department will discuss the Formal Grade Appeal with the instructor. In departments that have a committee charged with the responsibility of hearing student grade appeals, the chair may refer the matter to the committee. The role of the chair is to ensure procedural process; it is not to re-grade the work completed by the student for the course.

If the instructor is also the chair of the academic department, the dean of the school (or the dean's designee) will discuss the Formal Grade Appeal with the instructor.

The chair of the academic department and the instructor of the course must review the Formal Grade Appeal before the Official Withdrawal date in the semester subsequent to the semester the final grade was posted in SAIL.

- Fall Semester Final Grade Posted in SAIL Official withdrawal date in subsequent Winter semester
- Winter Semester Final Grade Posted in SAIL Official withdrawal date in subsequent Fall semester
- Summer Semester Final Grade Posted in SAIL Official withdrawal date in subsequent Fall semester

At the conclusion of this review, a written and dated decision must be provided to the student. If the student does not receive a response from the chair by the Official Withdrawal date, the student may advance their written grade appeal to the next level.

Step 3 - Formal appeal

Dean of the school offering course

Student responsibility

A student who does not believe their final course grade concerns were resolved in review with the chair of the academic department (or academic department committee) may advance their written grade appeal to the dean of the school (or the dean's designee) that offered the course.

The request for a Formal Grade Appeal of a final course grade must be submitted to the dean of the school that offered the course no later than 10 working days after the written decision of the chair of the academic department.

Dean responsibility

The dean may utilize any resources available to resolve the grade appeal before the end of the semester class date. When appropriate, the dean shall convene a committee to review the case. Within the structure provided by the dean, the committee shall design its own rules of operation and select a chair other than a faculty representative from the department concerned.

If feasible, the committee should meet with the student and the instructor together in an attempt to resolve the difference. The committee shall consider all aspects of the case before making its recommendation. The committee shall make a written report with recommendations and provide copies to the dean. The dean shall make a final decision after full consideration of the committee's recommendation.

The dean must provide a written, dated decision to the student, instructor and chair of the academic department before the end of the semester class date. The decision of the school dean is final and ends the grade appeal process for the student; there is no higher level of appeal.

- Fall Semester Final Grade Posted in SAIL End of class date in subsequent Winter semester
- Winter Semester Final Grade Posted in SAIL End of class date in subsequent Fall semester
- Summer Semester Final Grade Posted in SAIL End of class date in subsequent Fall semester

Residency classification

For University purposes, "domicile" is defined as the place where an individual intends his/her true, fixed and permanent home and principal establishment to be, and to which the individual intends to return whenever away. Upon admission to the University, a student is classified either as a Michigan resident or a nonresident based upon information relating to the student's domicile. A determination of Michigan domicile is required for in-state tuition rates to apply, except as stated below. An individual whose activities and circumstances, as documented to and found by the University, demonstrate that the individual has established a Michigan domicile will be classified as a resident. An individual whose presence in the state is based on activities or circumstances that are indeterminate or temporary, such as (but not limited to) educational pursuits, will be presumed not to be domiciled in Michigan and will be classified as a nonresident. To overcome a presumption of nonresident status, a student must file an Application for Reclassification of Residence Status and document with clear and convincing evidence that a Michigan domicile has been established. The burden of proof is on the applicant.

Evidence of domicile

Certain circumstances, although not controlling, support a claim of domicile. Other circumstances create a presumption against domicile.

Circumstances supporting a claim of domicile include:

- Dependence upon a parent domiciled in Michigan as demonstrated by permanent employment and establishment of a household in the state;
- Employment of the student or the student's spouse in Michigan in a full-time, permanent position, and that employment is the primary purpose for the student's presence in Michigan;
- Residence with Michigan relatives who provide more than half of the student's support including educational costs. This necessarily means that no non-Michigan resident claims the student as a dependent for income tax purposes.

The fact that certain indications of domicile may apply to a student does not mean that the student automatically will be classified as a resident or that the student is relieved of the responsibility for filing an application. See *Residency application process* below.

Circumstances that do not in themselves support a claim of domicile include:

- enrollment in high school, community college or university;
- employment that is temporary;
- employment in a position normally held by a student;
- ownership or lease of property;
- presence of relatives in the state, except as described above;
- possession of a Michigan driver's license or voter's registration;
- payment of Michigan income or property taxes;
- the applicant's statement of intent to be domiciled in Michigan.

In cases where the university determines that an applicant has not demonstrated establishment of Michigan domicile, unless substantial and new information arises that clearly demonstrates the establishment of domicile, the university will require the applicant to document one year of continuous physical presence in the state as one of the criteria for determining eligibility for resident classification in any subsequent application. The year of continuous presence is never the only criterion used for determining resident eligibility, and, in itself, will not qualify a student for resident status. In documenting the year of continuous physical presence in Michigan, the applicant will be expected to show actual physical presence by means of enrollment, employment, in-person financial transactions, health care appointments, etc. Having a lease or permanent address in the state does not, in itself, qualify as physical presence. A short-term absence (summer vacation of 21 days or less, spring break and break between fall and winter term), of itself, will not jeopardize compliance with the one-year requirement. In determining the effect of a short-term absence, the nature of the absence will be assessed to determine whether it is contrary to an intent to be domiciled in Michigan.

Presumption of domicile

Certain circumstances create a presumption of domicile. However, the presence of such a circumstance does not mean that the student will be classified automatically as a Michigan resident or that the student is relieved of the responsibility to file an application. These circumstances include:

Dependent students

A student is presumed to be a dependent of his or her parents if the student is 24 years of age or younger and has been primarily involved in educational pursuits or has not been entirely financially self-supporting through employment.

(a) Residents

The following applies only if the student has not taken steps to establish a domicile outside of Michigan or any other action inconsistent with maintaining a Michigan domicile.

- A dependent student whose parents are domiciled in Michigan is presumed to be eligible for resident classification.
- A dependent student whose parents are divorced is presumed to be eligible for resident classification purposes if one parent is domiciled in Michigan.
- A student who is living in Michigan and is permanently domiciled in Michigan does not lose residence status if the parents leave Michigan, provided: (i) that the student has completed at least the junior year of high school prior to the parents' departure, and (ii) that the student remains in Michigan, enrolled as a full-time student in high school or an institution of higher education.

(b) Non-residents

A dependent student whose parents are domiciled outside the state of Michigan is presumed to be a nonresident.

Absences from the state

Individuals domiciled in Michigan immediately preceding certain types of absences from the state may retain their eligibility for resident classification under the following conditions:

- An individual domiciled in Michigan for 5 years just prior to leaving the state for less than one year may return to the university as a resident for admission and tuition purposes.
- An individual domiciled in Michigan at the time of entry into active missionary work, Peace Corps or similar philanthropic work does not lose eligibility for resident classification as long as he or she is actively and continuously performing philanthropic work and continuously claims Michigan as the state of legal residence for income tax purposes. Dependent children of such an individual also are eligible for resident classification provided: (i) that they are coming to the university directly from high school or they have been continuously enrolled in college since graduating from high school, and (ii) that they have not claimed residency elsewhere for tuition purposes.
- An individual who is domiciled in Michigan immediately preceding an absence from the state for full-time enrollment in school or for a medical residency program, internship or fellowship does not lose eligibility for resident classification provided that the individual has maintained significant ties to the state during his or her absence (e.g., parents still in the state, payment of state taxes, active business accounts), and that the individual has not claimed residency for tuition purposes in another state.

Resident status of aliens

Notwithstanding the above, except for those aliens holding a permanent resident visa, the only aliens eligible for consideration for classification as a resident are those who are on a visa other than a student visa; and who are engaged in permanent employment in the United States; and whose employer has filed or is in the process of filing for permanent resident status on behalf of the alien. An alien will be eligible for consideration if the alien's parents or spouse meet(s) the alien requirements above and dependent status also exists.

Application of in-state tuition rates in special circumstances

Regardless of domicile, in-state tuition rates apply to the following persons:

- Graduate students who hold an assistantship or fellowship awarded through Oakland University;
- Students employed in Michigan in full-time, permanent positions;
- Students admitted to approved on-line degree or certificate programs; and

- Students who are active duty members, or the spouse or dependent child of an active duty member, of the Armed Forces of the United States, while that active duty member is stationed in Michigan and during the student's continuous enrollment in the academic degree program in which he or she is enrolled if that active duty member is transferred to an active duty location outside Michigan; or if the student is the child of an active duty member of the Armed Forces of the United States who was stationed in Michigan but is transferred to an active duty location outside Michigan within the one-year period preceding the student's initial enrollment and the student continues to live in Michigan.

Appeal process

Any student desiring to challenge his or her initial residency classification may appeal the determination to the Residency Reclassification Appeals Office, 101A O'Dowd Hall, (248) 370-3455. The Associate Registrar makes the initial determination of residency. The Registrar is the second level of appeal and the Residency Reclassification Appeals Committee is the third level of appeal. The committee convenes only as necessary. The determination of the Residency Reclassification Appeals Committee is final.

Residency application process

It is the student's responsibility to apply for admission under the proper residency classification. If a student indicates Michigan resident status on the admissions application and the admissions office questions that status, the student will be classified as a nonresident and notified of the need to file an Application for Reclassification of Residence Status with the Residency Appeals Office. The fact that a student's claim to residency for university purposes is questioned does not necessarily mean that he or she will be ineligible for resident status; it simply means that the student's circumstances must be documented and reviewed. Failure on the part of admissions staff to question a student's claim to resident eligibility does not relieve the student of the responsibility to apply and register under the proper residency classification. Furthermore, the university may audit enrolled or prospective students at any time with regard to eligibility for resident classification and may reclassify students who are registered under an improper residency classification.

The presence of any of the following factors will result in an initial classification as a nonresident:

- Out-of-state employment within the last three years;
- Living out of state at the time of application to the university;
- Attendance or graduation from an out-of-state high school (applies if the individual is 24 years of age or younger);
- Attendance or graduation from an out-of-state high school and involvement in educational pursuits for the majority of time since graduation from high school.

Residency reclassification documentation

The following are required:

- a completed application,
- a written, signed statement explaining why Michigan is one's true home,
- a letter from the employer of the family member providing the major support for the student, stating the family member's position title, when the Michigan employment began, and, for aliens, the status of any application for permanent residency; and
- documentation of the Michigan home (lease or home purchase document) must be included.

Applicants also are responsible for providing any other documentation necessary to support their claim to resident eligibility. Additional documentation may be required by the university.

Misrepresentation and falsification of information

Applicants or students who provide false or misleading information or who intentionally omit relevant information in any document relevant to residency eligibility may be subject to legal or disciplinary measures including revocation of admission or expulsion. Students improperly classified as residents based on this type of information will have their residency classification changed and may be retroactively charged nonresident tuition for the period of time they were improperly classified.

Combined Bachelor/Master Program Guidelines

Combined Bachelor/Masters programs provide high-achieving students an opportunity to complete a bachelor's and master's degree in less time than if the two degrees were earned independently. Students in these programs complete 12 graduate level credits at the undergraduate tuition rates as part of their bachelor's degree. Qualified students are invited to apply for admission into the **Combined Bachelor/Graduate degree** program.

Requirements for a combined Bachelor/Graduate program

1. As part of the proposal to offer a combined bachelors/graduate certificate/degree, programs must specify the timing of application (and deferred admission) to the combined program. This may be as early as the time of submission of the application for undergraduate admission for programs that wish to have direct admission into the bachelors and graduate degree. Programs should

consider which courses they would want students to double-count, and the timing for when students would take those courses in their decisions regarding application timing.

2. There must be specific requirements for admission to the combined degree program that defines the expected academic performance of the students to be admitted. Students must have a minimum overall undergraduate GPA of 3.0 at time of application to be eligible for acceptance into the combined program and meet the admission requirements for the graduate degree portion of the program. Individual graduate programs may have a higher GPA requirement. Admission requirements for direct admission at the time of the application for undergraduate admission into a bachelors/graduate degree should be substantially higher and have a clearly articulated rationale in order to ensure that accepted students have a high likelihood of success. Students who are accepted into the combined program will be granted deferred admission to the graduate program.
3. The combined program should be designed not to delay the students' receipt of their bachelor's degrees.
4. For doctoral programs with external accreditation, up to 30 credits of graduate courses may be applied to both the bachelor's degree and the doctoral degree. For doctoral programs that do not have external accreditation and for masters programs, up to 12 credits of graduate courses may be applied to both the bachelor's and the graduate degree. For graduate certificate programs, up to 6 credits may be applied to both the bachelor's degree and the graduate certificate.
5. Courses eligible to be double-counted must be at the 5000 level or above. Independent study courses, internships, or courses given credit by examination are not eligible. The graduate credits to be double-counted will be designated as applicable to the graduate degree after the student receives the bachelor's degree and matriculates in the graduate program. This designation will be canceled if the student is denied formal admission to the graduate program or withdraws from the graduate program before satisfying the requirements for the graduate degree.
6. A Graduate Plan of Study should be developed with the student at the time of admission, and shared with the Graduate School.
7. Students must maintain a cumulative undergraduate GPA of 3.0, as well as earn a grade of at least a B (3.0), S, or SP in each course taken for graduate credit (except as noted below). If the cumulative undergraduate grade point average (CGPA) falls below 3.00, the student will not be permitted to enroll in additional graduate coursework until their cumulative GPA returns to 3.00. Policies regarding grades in graduate level courses that are described in the Graduate School catalog will be followed to determine whether the courses may count toward the graduate degree.

The policies in the Undergraduate Catalogue regarding minimum grades will be followed to determine whether the courses count toward the undergraduate degree. If the undergraduate student earns a grade lower than a (B) 3.00, S, or SP in more than one graduate level course, they will be removed from the graduate portion of the combined program, except in cases where they would still be permitted by program policy to use those courses toward their graduate degree. If an undergraduate student is removed from the combined program, they may still use the earned graduate credits toward the bachelor's degree requirements where applicable and consistent with the Undergraduate Catalog.

8. Students offered deferred admission remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA of 3.0 and have earned grades that meet the program's criteria for being applied to the graduate degree in each of the graduate courses taken as an undergraduate, will be reclassified as a graduate student through the Graduate School. Students who have not maintained eligibility to continue will be denied formal admission to the graduate program and forfeit the double-counted course advantage extended to students eligible to continue in the graduate portion of the combined degree program.

Undergraduate students who take graduate courses, prior to being accepted by the Graduate School with deferred admission into the graduate program will NOT be able to count those courses towards their graduate degree.

9. All university and departmental requirements, including the full number of credit hours required, for the bachelor's degree and the graduate certificate/degree must be satisfied to receive both the undergraduate degree and the graduate certificate/degree.
10. Students in the combined program are eligible to hold a graduate assistantship or graduate fellowship upon completion of the undergraduate degree requirements and being reclassified as graduate students, subject to all other policies related to holding a graduate assistantship.

Campus Security Policies

Security policies, crime statistics and log

Information regarding public safety at Oakland University is provided in the [Annual Security and Fire Safety Report](#). The Security and Fire Safety Report includes crime statistics for the previous three years concerning certain crimes reported to have occurred on the University's campuses; in or on non-campus buildings, and property owned or controlled by Oakland University; and on public property within, or immediately adjacent to and accessible from, the campus. The Security and Fire Safety Report also includes information about police and public safety resources, reporting crimes, coordination between law enforcement agencies, fire and medical emergencies, crime prevention, victim support services, the law and OU policies, campus facilities, residence hall security, timely warning and emergency notification policy statements, and the [OU Alcohol and Other Drug Policy](#). Additional information regarding emergency action plans is [available online](#) and OU's [sexual misconduct policy](#) can be found online as well. A crime log can be found online at the [Oakland University Police Department](#). To obtain a paper copy of the Security Report or the crime log, contact the Oakland University Police Department at (248) 370-3331 or by emailing info@oupolice.com.

FERPA

Family Educational Rights and Privacy Act (FERPA)

The federal [Family Educational Rights and Privacy Act of 1974](#) pertains to confidential student educational records. This legislation allows students the right to view their own confidential educational records upon request and defines the use of these records by others. The dean of students is one of the University compliance officers for the Family Educational Rights and Privacy Act.

Students who do not want directory information to appear on the Oakland University website can restrict release of such data by doing the following:

- Login to [Sail](#)
- Click on Login to Secure Area
- Complete the User Login
- Select Personal Information
- Select Directory Profile
- De-select the Display in Directory option for items you wish to not appear in the web directory.

Students who do not want directory information released in any other form should submit a request to withhold directory information. The [form](#) is available through the [Office of the Registrar](#). Upon receipt of the completed and signed form, directory information will be withheld until the student requests in writing that it be released. Any further questions can be answered by Registrar Services by phone (248) 370-3450 or email Registrar Services (regservices@oakland.edu).

The University considers student theses and dissertations to be public statements of research findings. Therefore, students who submit such work in fulfillment of degree requirements shall be deemed to have consented to disclosure of the work.

Any questions, grievances, complaints or other related problems may be addressed to the Dean of Students. A full statement of student rights is available in the Dean of Students Office, Oakland Center Suite 150, 312 Meadowbrook Road, Rochester, MI 48309-4454, (248) 370-3352 and/or filed with the U.S. Department of Education.

Admission Requirements

Admission requirements

The graduate admission policy of Oakland University is selective, and the process is competitive. Applicants for graduate admission must present evidence that they have had the necessary academic preparation to enable them to pursue the graduate program for which they are applying.

International applicants have specific admission requirements.

Graduate application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

Graduate Application Requirements

- Online [Application for Admission to Oakland University Graduate School](#).
- **Official Transcripts** are required from all post-secondary educational institutions from which the applicant earned a degree (beginning with first baccalaureate) and all enrollment in graduate level course work beyond the bachelor's degree.

International University Transcripts (educational credentials) must be evaluated by a professional credential evaluation service. Oakland University will only accept transcript evaluations completed by a NACES (National Association of Credential Evaluation

service) member organization.

Three-year Baccalaureate Degree

Applicants with a three-year baccalaureate degree from an institution outside of the U.S. are welcome provided: 1) they have been awarded the degree at the time of application; 2) the degree would qualify them for admission to an academic graduate program in the country in which it was earned; and 3) their degree evaluation must include a **course-by-course (or detailed) transcript evaluation** rather than the general transcript evaluation.

General Document-by-Document Evaluation

A general document-by-document evaluation contains a description of your credentials, including name, year awarded, name of institution attended, and major field of study. It also provides the U.S. equivalent for each credential. This is Not permitted for 3-year baccalaureate degrees.

Course-by-Course Transcript Evaluation (preferred)

Graduate programs requiring more detailed information will require an applicant to submit a course-by-course transcript evaluation. A course by course transcript evaluation details all post-secondary subjects with the corresponding values expressed in terms of U.S. equivalent course grade, semester units and credit units for each subject

Since official transcripts must be submitted to the evaluation service, official foreign transcripts will not be required by Oakland University

Recommendation for Graduate Admission Forms

*Refer to the **program application requirements** listed below for specific requirements for the recommendations. Note that some graduate certificates do not require any recommendations.

Proof of English language proficiency

International supplemental application and supporting documentation must be submitted before international applicants can be issued the Certification of Eligibility (I-20). This certificate is required to apply for a student visa from the U.S. embassy or consulate.

Program-specific admission requirements

In addition to meeting the General Admission Requirements, Graduate admission decisions are based on a combination of qualitative and quantitative program admission requirements that may include, but are not limited to, the following:

- Career goal statement
- Personal goal statement
- Letters of recommendation
- Academic record
- Relevant professional activities and achievements
- Previous grades and GPA
- Interviews
- Audition
- Essays
- Portfolios
- Supplemental applications
- Standard admission test scores

Some graduate programs may require an applicant to submit satisfactory scores from the Graduate Record Exam (GRE), including advanced (subject) exams.

Admission requirements specific to the graduate program for which students are applying may be found in the program/department section of this catalog.

Graduate Admissions Deadlines and Review

After the application is received in the Graduate School, it is entered into the university student system, and an admission file is established. Thereafter, academic credentials are confirmed for eligibility and the requisite documents for general admission and the intended program are reviewed for completeness. Completed admission files are shared with the intended program for admission review. Admission deadlines vary by program. Applicants are advised to confirm the admission deadline for the intended program of study in this catalog.

International applications are reviewed for fall, winter, and summer semester admission. To ensure adequate time for review and issuing I-20s, international applications must be completed at least six months before the desired date of intended enrollment to the University. All international application materials must be submitted by

- May 1 for fall admission
- September 1 for winter admission
- January 1 for summer admission

Graduate Admission Documents

All graduate admission documentation, including recommendation forms, standardized test scores and academic transcripts from other institutions, become part of the official admission file and can neither be returned to the applicant nor duplicated for any purpose.

Application

Oakland University accepts an online Application for Admission to Oakland University Graduate School via www.oakland.edu/grad. To make the online application process convenient, the applicant creates a PIN and password so information can be entered over several sessions. Online information is stored and transmitted through a secured server. Once the online application is submitted, it is available for initial processing by Graduate Admissions.

Applicants who have been previously admitted and have not enrolled within the last two years must submit a **Petition to Readmit to Graduate Program**.

Recommendations

In most cases, graduate programs require an applicant to submit a minimum of two **Recommendation for Graduate Admission** forms. The total required recommendation forms are published in the Application Requirements section specific to the graduate program for which the applicant is requesting admission. Unless the applicant has been out of school for more than five years, at least one of the recommenders should be a faculty member who is able to judge the applicant's preparation and ability to undertake graduate study.

Substitutions for a faculty recommender may include work supervisors or approved others who can comment on the applicant's academic potential for graduate work.

All recommendations must be submitted on the recommendation forms provided through the application.

The Recommendation for Graduate Admission forms become part of the student's official admission file. The Family Education Rights and Privacy Act of 1974 provide student access to his/her educational record; however, the student retains the right to waive access to specific documents in his/her record. Students admitted to graduate study at Oakland University will be permitted access to the recommendations unless the student voluntarily waived this right as an applicant. Students who waived this right will not be permitted access to the recommendations.

Baccalaureate Degree

Applicants must have earned a baccalaureate degree from an accredited U.S. institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.

In addition to a degree equivalent to a four-year U.S. baccalaureate degree, some graduate programs may require an applicant to submit satisfactory scores from the Graduate Record Exam (GRE), including advanced (subject) exams or the Graduate Management Admission Test (GMAT). The GRE and GMAT are administered worldwide by **Educational Testing Service (ETS)**.

Prospective students may apply for admission to the Graduate School at Oakland University during their final year of undergraduate study but must furnish proof of the baccalaureate degree by submitting the official transcript, with the degree posted, by a deadline no later than 45 days from the first day of class for the initial term of enrollment.

The date the baccalaureate degree was conferred must precede the date of enrollment in the graduate degree program.

Official Transcripts

According to the guidelines set by the American Association of College Registrars and Admissions Officers (AACRAO), an official college transcript is one that has been received directly in a sealed envelope from the issuing college or university or through a secure electronic transcript service. It must bear the college seal, current date, and an appropriate signature. Additionally, transcripts providing certification of the degree earned must include the degree and the date the degree was awarded. Transcripts received that do not meet these requirements are considered unofficial. All transcripts become the property of Oakland University and will not be returned to an applicant, or sent to another institution.

Minimum Transcript Requirements

Official transcripts are required from all post-secondary educational institutions from which the applicant earned a degree (beginning with first baccalaureate) and all enrollments in graduate-level coursework beyond the bachelor's degree. Unofficial transcripts may be accepted for admissions evaluation purposes. When unofficial transcripts are received, the student's acceptance should be regarded as limited standing pending receipt of an official transcript within a specific time frame.

Standards Beyond Minimum Transcript Requirements

As part of the admission requirements, graduate programs may require official transcripts from post-secondary educational institutions from which the applicant earned an associate degree and all enrollment in coursework both pre- or post-baccalaureate degrees.

Undergraduate Preparatory Courses

Undergraduate preparatory coursework refers to courses an applicant must complete in order to be eligible for admission into a graduate program. Preparatory courses are required for admission to the intended program and are NOT considered part of the degree requirements.

Graduate applicants, who do not meet the undergraduate coursework required for admission to a specific graduate program will be given a delayed graduate admission status and admitted to Oakland University at the post-baccalaureate level (PB) with a Graduate Preparatory (GP) student classification.

Financial aid eligibility can be granted for one calendar year to delayed graduate applicants admitted to Graduate Preparatory student classification. The student must produce for the Financial Aid Office an official letter and plan of study that lists the undergraduate preparatory courses required for the program. Only those undergraduate courses listed on the program plan of study can be used for calculation of loan eligibility.

Once the preparatory coursework is completed the student may be admitted to the degree program if the undergraduate preparatory courses are completed with the required grade.

International Applicants Admission Requirements

International Supplemental Application

In addition to the [Application for Admission to Oakland University Graduate School](#), international applicants must submit an [International Student Supplemental Application](#).

International University Transcripts

International university transcripts must be evaluated by a professional credential evaluation service. Oakland University will only accept transcript evaluations completed by a NACES (National Association of Credential Evaluation service) member organization. Many applicants use [World Educational Services](#) (WES) or [Educational Credential Evaluators](#) (ECE). NACES membership can be confirmed by visiting www.naces.org/members. Graduate programs requiring more detailed information may require an applicant to submit a course-by-course (or detailed) evaluation report rather than the general evaluation report. Official foreign transcripts will not be required by Oakland University since official transcripts must be submitted to and verified by the evaluation service. However, applicants must submit photocopies of their foreign transcripts with their application materials.

Notarized Bank Statement and Affidavit of Financial Support

International applicants who are applying for graduate admission with an F1 or J1 visa status must certify sufficient funds for university expenses including tuition, books, supplies, insurance, and living expenses (travel is not included). To certify finances, the applicant must submit an affidavit of financial support and a notarized bank statement in U.S dollars for required published amount. These documents are required for the student F-1 or J-1 visa petition at the American embassy or consulate in the home country.

English Language Proficiency

Proficiency in reading, writing, speaking and listening English is needed for students to be successful when completing an academic degree in the United States. All matriculating international applicants, other visa holders, permanent residents and applicants whose first language is not English, must be proficient in English as a requirement to enroll in courses for credit at Oakland University. Such applicants will be required to demonstrate English proficiency by meeting one of the following conditions listed below. The English proficiency scores must be two years old or less at the time of the applicant's intended enrollment at Oakland University.

Some programs at Oakland University may require a higher level of proficiency than listed below. Applicants should examine the program descriptions for their field of study for information about additional English proficiency requirements and furnish proof as part of the admission process. Please visit the [ESL Institute](#) or [Graduate Admissions](#) for additional information.

Full Admission Requirements			
One of the following constitutes proof:			
1.	TOEFL iBT (internet): 79	TOEFL (computer): 213	
	Note: Applicants may use MyBest TOEFL		
2.	IELTS: 6.5		
	or		
3.	PTE (academic): 53 minimum		
	or		
4.	DUOLINGO (105 or better)		
	or		
5.	Baccalaureate or graduate degree awarded from a regionally accredited U.S. college or university.		
	or		
6.	Baccalaureate or graduate degree at an institution outside of the U.S. where the language of instruction was English.		
	or		
7.	Oakland University non-matriculating students (guest students) who have earned a minimum of 12 academic credits with a 3.0 GPA.		
	These options are not available for F or J Visa		
8.	Applicant has worked full-time in the U.S. for at least three years in an English speaking environment. Evidence must be provided from Human Resources to verify employment and length of service.		
	OR		
9.	Applicant has worked full-time outside of the U.S. for at least three years in an English speaking environment. Evidence must be provided from Human Resources to verify employment, length of service and English is the primary language of written and oral communication.		
	OR		
10.	Applicant has a U.S. professional license (e.g. United States Medical Licensing Exam - USMLE) that explicitly includes an English proficiency requirement		
	OR		
11.	A letter of support or comment from the ESL Institute at Oakland University based on an interview and completion of the ESL placement test.		
Admission with Limited Standing - ESL Course Sequence Requirement			
One of the following constitutes proof:			
	TOEFL iBT (internet): 78-69 Note: Applicants may use MyBest TOEFL IELTS: 6 PTE (academic): 52-48	TOEFL (Computer): 212-190	

Applicants, with evidence of an English Proficiency exam with the following scores, AND determined academically qualified for admission to a graduate program, will be required to enroll in an ESL course sequence, as determined by the ESL Institute, along with required academic program courses starting in their first semester of registration and each subsequent semester until successful ESL completion.

It is expected that applicants, granted admission with limited standing for ESL requirements, will successfully complete the required ESL course sequence within one year. Students not making satisfactory progress in the **ESL course sequence and/or academic program courses** will be denied full admission and further enrollment in their academic graduate program.

The ESL Institute will monitor progress and provide written notification to the Graduate School, when the student has successfully completed three level 7 courses with a minimum of an A- or three level 8 courses with a minimum of B-, and if the student is in good academic standing, the Graduate School may extend the student full admission to the graduate program.

APPLICANTS - ALL VISA TYPE

Admission to Intensive English Program

Prospective students, who do not have adequate English Proficiency scores for full admission or admission with ESL course sequence requirements can apply directly to the ESL Institute at Oakland University. Course placement is done by the ESL Institute using the ESL Online Placement Test, reported English proficiency test scores, and/or other assessment tools. During the students' ESL instruction sequence, students' English Proficiency will be evaluated to determine whether adequate progress is being made and if additional ESL coursework is necessary to achieve English Proficiency. The ESL instruction sequence designed by the ESL Institute is not negotiable.

Upon completion of the Intensive English Program in the ESL Institute at Oakland University, students may (re)apply for admission to Oakland University.

Exemption of English proficiency requirement

A TOEFL exemption exists for students from countries where English is both the official language and the language of instruction in higher education. Below is a list of countries with English as an official language and the language of Instruction in Higher Education. Non- US applicants, with citizenship in one of the countries listed, are exempt from the Test of English proficiency requirement.

List of countries where English is both the official language and the language of instruction in higher education		
Anguilla Antigua and Barbuda Australia Bahamas Barbados Belize Bermuda Botswana British Virgin Islands Cameroon Canada (except Quebec) Cayman Islands Dominica England Fiji Gambia Ghana Gibraltar Grenada Guyana	Ireland, Northern Ireland, Republic of Jamaica Kenya Lesotho Liberia Malawi Malta Mauritius Montserrat Namibia New Zealand Nigeria Papua New Guinea St. Kitts and Nevis St. Lucia St. Vincent and the Grenadines Scotland Seychelles Sierra Leone	Singapore Solomon Islands South Africa Swaziland Tanzania Tonga Trinidad and Tobago Turks and Caicos Islands Uganda United Kingdom Vanuatu Wales Zambia Zimbabwe

International applicants already studying in U.S.

International applicants who are presently in the United States on a student status may be required to provide a statement from the International Student Adviser at their current institution. International students who do not enroll during their indicated semester of admission must submit an application to update at least eight weeks prior to the start of the term (fall or winter) in which they wish to enroll.

International applicants to distance learning programs delivered 100% online

An international applicant is anyone who is not a US citizen at the time of application to Oakland University.

Non-US citizens applying for admissions to a distance learning program that does NOT require any on-campus instruction at Oakland University (**100% online**) do **not** require a non-immigrant visa. Therefore, the Non-US Citizen Information section of the graduate application (Checklist item 7 of 9) does not need to be completed.

Non-US citizens, including those applying for admissions to a distance learning program that requires on-campus instruction at Oakland University (50-99% online) **do** require a non-immigrant visa. These applicants must complete the Non-US Citizen Information section of the graduate application (Checklist item 7 of 9).

Graduate Students Admitted at OU

Readmission

Applicants who have been previously admitted to and have enrolled in a graduate program at Oakland University should not complete a new application for admission to Oakland University Graduate School. Instead, students who were previously admitted to a graduate program, but have not taken a course at Oakland University within the last two years should submit a **Petition to Readmit to Graduate Program** to the Oakland University Graduate School, 520 O'Dowd Hall. If it has been two years or more since you last attended you will be required to submit a new **application**. Please refer to the **Inactive or Active student classification** section of the graduate catalog for more information.

Military Readmission

Any student who is temporarily unable to attend class or must suspend their studies due to military service requirements will be readmitted with the same academic status they had when last attending the university.

Transferring to a New Program

Current graduate students who have been admitted to a graduate degree at Oakland University and wish to transfer to a different Oakland University graduate degree should not complete a new application for admission. Instead, these students should submit a **Petition for Program Transfer** form to Oakland University Graduate School. Please refer to the Change of Status - Program Transfer section of the graduate catalog for more information.

Graduate Students Admitted at Another Institution

Transferring to OU

Students enrolled in a graduate certificate, master's, or doctoral degree program may transfer up to 49% of the credits required for the program, provided the transferred credits meet the requirements below. Credits to be transferred:

- are being transferred from a regionally accredited college or university in the U.S., or its equivalent from an international institution
- are verified by an official transcript
- are graduate level numbered 5000 or above (or equivalent) with satisfactory grades (at least 3.0, B, Satisfactory or Pass)
- have not been used for any other degree or awarded certificate
- have been taken within three years of when the graduate certificate will be earned or six years of when the master's degree or doctoral degree will be earned, except when revalidated* by the student's Oakland University graduate program and approved by the Graduate School.

*At least 51% of the credits required for the credential must be earned at Oakland University. Thus, if students are receiving a credit reduction because of a master's degree or graduate certificate that was awarded at another institution prior to entering the program, the number of credits that may be transferred to Oakland will be reduced. Students transferring credit must still take Oakland coursework evaluated with a letter grade in order to achieve the minimum GPA of 3.0 as transferred coursework does not factor into the Oakland GPA.

* Students should refer to individual graduate program standards and requirements for details.

Graduate Admission Process

Overview

Applicants seeking graduate admission with full standing to a degree or graduate certificate program must submit all required documentation by published deadlines to ensure proper processing and evaluation by the school or department and Graduate Admissions for the selected semester. Even though an applicant may meet the general requirements for admission to graduate study, each graduate program reserves the right to recommend a denial or admission with limited standing based upon the evaluation of documentation supplied by the applicant, as well as the standing of the applicant relative to others who have applied to the specific graduate program. Graduate students are permitted to matriculate into only one graduate degree program at a time.

Responsibility for Graduate Admission

Oakland University Graduate School is responsible for the interpretation and administration of regulations governing the admission of graduate students.

The Graduate Admissions office is assigned the responsibility of collecting, processing, and reviewing completeness of the applications for admission to graduate programs.

Each graduate program is responsible for establishing its own program admission requirements and for the application review and admission assessment process.

Admission Process Flow

After the application is received in the Graduate Admissions office, it is entered into the university student system and an admission file is established.

Thereafter, academic credentials are confirmed for eligibility and the requisite documents for general admission and the intended program are reviewed for completeness. Completed admission files are shared with the intended program for admission review.

In many cases the admission decision is made very quickly; however, when a program admission requirement stipulates an applicant interview, the amount of time increases before a final admission decision can be made by the program. Some of the Graduate Programs with established admission deadlines will not begin the review process until after the program deadline has passed and the entire applicant pool has been ascertained.

Graduate admission decisions are not released to applicants via the Web or over the phone. All admission decisions are communicated directly to the applicant via mail. Online applicants will be able to see that an admission decision has been made by reviewing the online application status.

Confidentiality of Admission Process

Oakland University maintains the confidentiality of both the information submitted by an applicant and the status of their application during the graduate admission process. This information can only be shared with the applicant or someone the applicant has designated in writing as their proxy. Any applicant whose personal circumstances require that someone else contact Graduate Admissions in conjunction with their application must send a signed letter formally designating that person as their proxy. Graduate Admissions cannot discuss an application with anyone but the applicant without this document.

Offer of Admission

Formal admission to a graduate program at Oakland University is offered by Oakland University Graduate School. The offer of graduate admission is extended to the applicant for a specified semester. An admitted student who wishes to change the semester of entry must request to update their admission to graduate school. Oakland University Graduate School will permit an admitted applicant to update within three terms of the original admission term; thereafter, a new application will be required. Graduate students are admitted to either full or limited standing as described below.

Update Semester of Admission

The offer of admission is extended to the applicant for a specified semester. An admitted student who wishes to update their semester of entry must notify the Graduate Admissions office in writing.

Contingent upon the approval of the graduate program, admitted students are permitted three (3) successive semester updates to their original admission semester. Thereafter, any further changes will require a new graduate application, admission documentation, transcripts, and standardized test scores. Admission records, for admitted students who do not enroll, are purged four (4) semesters after original offer of admission.

Example

Original offer of admission (Fall 2009); successive semesters to update are Winter 2010, Summer 2010, and Fall 2010; admission records are purged after Winter 2011.

Denial of Admission

The graduate admission process at Oakland University is competitive. The competitiveness of admission is determined by the number of applications received and the academic qualifications of the applicant pool; therefore, talented scholars may possibly be denied admission to some graduate programs.

Each graduate program is responsible for its own application review process and the admission recommendation made to the Oakland University Graduate School. Applicants who are unsuccessful in gaining admission to a graduate program are notified in writing.

Specific information regarding the applicant review and assessment process, or insight into an applicant's denied admission status, must be discussed directly with the graduate program.

Appeal of Admission Decision

Unsuccessful applicants have an avenue to appeal their admission decision if the appeal holds merit. For an appeal to have merit, it must document new and compelling academic information or extenuating personal circumstances that were not included in the original application. Please keep in mind that this information may or may not result in a reversal of the original decision. To ensure all appeals receive thorough and equal consideration, all appeals must

- be submitted in writing 15 working days from the date of the denial letter
- document all new information cited as the basis for the appeal

Appeal Process

- The written appeal must be submitted to Oakland University Graduate School, 520 O'Dowd Hall.
- The appeal will be forwarded to the program department chair.
- Within 15 working days from receipt of the written appeal, the department will submit a recommendation to the Assistant Dean of Oakland University Graduate School to either admit the applicant or to sustain the original denial.
- The Assistant Dean of Oakland University Graduate School shall review the recommendation and notify the applicant in writing of the final decision within 10 working days from the departmental recommendation.
- The decision of the Assistant Dean of Oakland University Graduate School is final.

Degree Seeking Graduate Admission Classifications

Full Standing Classification

An applicant seeking graduate admission with full standing to a degree or graduate certificate program must meet the criteria specified undergraduate admission general requirements and, in addition, must satisfy the specific program admission requirements as stated in the graduate catalog; and in addition, must:

1. satisfy the specific program admission requirements as stated in the graduate catalog; and
2. achieve a satisfactory score on the GRE or GMAT if required.

Admitting an applicant to a graduate program with full standing does not imply the student will be advanced to candidacy for an advanced degree.

Limited Standing Classification

An applicant who meets the general admission requirements as stated in the graduate catalog for a graduate program, as well as the specific program admission requirements, will be granted graduate admission with limited standing when:

1. Degree credential requirements are pending (the applicant is pending graduation and cannot submit an official transcript to furnish proof of an earned baccalaureate degree) and/or
2. Additional academic requirements are imposed by the graduate program.

Applicants admitted to a graduate program with limited standing are approved to enroll in advanced degree curricula. Those students who do not satisfy the requirements of limited standing within the time period as specified in the graduate catalog and set forth in the offer of admission letter are in violation and denied further registration in the graduate program.

Degree Credential Requirement

An applicant admitted to a graduate program with limited standing is notified of the specific degree credential requirement in the written offer of admission letter.

Degree credential requirements must be met by:

1. submitting an official baccalaureate degree transcript as certification of degree received, including the date the degree was conferred from a regionally accredited institution; and
2. submitting the official transcript, with the degree posted, by a deadline no later than 45 days from the first day of class for the initial term of enrollment.

Failure to submit the official, final degree transcript by the stated deadline will result in rescinding the offer of admission and immediate cancellation of graduate enrollment. **The date the baccalaureate degree was conferred must precede the date of enrollment in the graduate degree program.**

Academic Requirement

An applicant admitted to a graduate program with limited standing has up to three academic terms (fall-winter; summer excluded) from the time of initial enrollment to complete the academic requirements specified in the written offer of admission letter.

Academic requirements must be met by:

1. enrollment in not more than 12 credits of additional graduate coursework, within three terms from the initial term of enrollment and/or
2. achieving a minimum grade requirement of 3.0 or above in each graduate course taken during the first 12 credit hours of enrollment.

Applicants requiring undergraduate course preparation (graduate preparatory coursework) cannot be admitted to a graduate program with limited standing. Graduate preparatory coursework is defined as prerequisite undergraduate courses an applicant is required to complete in order to be eligible for admission into a graduate degree program. These courses are preparatory to the degree.

Post-baccalaureate Classification (graduate preparatory coursework)

Undergraduate course preparation or graduate preparatory coursework refers to prerequisite undergraduate courses an applicant is required to complete in order to be eligible for admission into a graduate degree program. These undergraduate courses are preparatory to the degree and not included as part of the graduate degree requirements.

Graduate applicants who do not meet the undergraduate coursework required for admission to a specific graduate program will be given a delayed graduate admission status and admitted to Oakland University at the post-baccalaureate level (PB) as a Graduate Preparatory (GP) student.

A student taking Graduate Preparatory coursework must provide a financial aid officer an approved plan of study, signed by a graduate program coordinator, that identifies the specific undergraduate courses required for admission to the graduate program. Upon completing the preparatory course requirements, the student will be reviewed for regular admissions to the graduate program.

A Graduate Preparatory (GP) student who enrolls in preparatory coursework required for admission to the graduate program may be eligible to apply for financial aid for one consecutive 12-month period. The 12-month period will begin the first day of the loan period in which the student is enrolled half-time. Should the student decrease their enrollment to less than half time after the first day of that term, the 12-month consecutive period will continue to run. Preparatory coursework that exceeds the 12-month consecutive period will not be eligible for financial aid.

Special Graduate Classification

Applicants who are seeking a graduate degree or graduate certificate, but who are unable to meet the deadline for filing all required application materials or credentials for graduate admission may be granted temporary admission, provided they submit a copy of a transcript providing evidence of a bachelor's degree awarded and any specific evidence concerning their qualifications for graduate study as required by the department.

Students admitted to Special Graduate classification are not eligible to receive financial assistance.

Students granted admission in the Special Graduate classification may take no more than a total of 12 credits and must meet the criteria specified for general admission requirements and specific program admission requirements before completing the second semester of registration.

Up to 12 credits earned in the Special Graduate classification may be applied toward degree or graduate certificate requirements if:

1. a student is later admitted to a degree or graduate certificate program, and
2. the credit is approved by the graduate program as appropriate to the degree or graduate certificate objective.

Admission as a special graduate student in no way assures subsequent admission to a degree or graduate certificate program. Degree or graduate certificate course requirements and program regulations prevailing for the semester of formal admission to a graduate program will govern the student's program.

Inactive or Active student classification

Inactive Student Status

At Oakland University, a matriculated graduate student is a student who has been previously admitted to and has enrolled in a graduate program. Oakland University Graduate School classifies inactive, matriculated students into two categories: one category permits readmission to a graduate program, and the other category requires reapplication before an inactive student can re-enroll in a course. The periods of inactivity used to classify inactive students into the appropriate category are defined as follows:

Readmission

Students who have not enrolled for less than six consecutive semesters are permitted to submit a **Request for Graduate Readmission form**. Each request is evaluated in terms of the time limit established for completing degree requirements, performance in previous coursework, and progress made toward the degree. Students will not be readmitted to programs that have been suspended or discontinued. The catalog current at the time a student is readmitted will govern program requirements, policies, and procedures.

Readmission Deadlines

A student must be approved for readmission to their graduate program **PRIOR** to the beginning of a semester in order for the admission to be effective for that term. If the admission process is completed after that deadline, whether because the file was not completed or because departmental action was not taken earlier, the readmission will be effective for the next semester.

Reapplication

Students who have not enrolled for seven consecutive years are considered inactive and their graduate student files are destroyed. These students are considered new applicants and must submit a new **Application for Admission to Oakland University Graduate School** and new supporting documents as specified in both the General Admission Requirements and the Program Admission Requirements.

Active Student Status

Program Transfer

Graduate students, in good academic standing, who have been admitted to a graduate degree program and wish to transfer to another graduate program or pursue a new degree-level must submit a [**Request for Program Transfer form**](#) to Oakland University Graduate School. Admission to a new program and/or a new degree level is not granted automatically. Each program transfer request is subject to review and approval of the prospective new graduate program.

Program Transfer Review Process

The prospective new program will review the student's original admission documentation, supporting credentials, and any materials relevant to the student's subsequent academic progress at Oakland University. In addition, the prospective new program may request new letters of recommendation and/or a new goal statement specific to the new program to which the student desires to transfer. A graduate program transfer is subject to minimum Graduate Admissions requirements and deadlines. A student should review the program admission requirements detailed in this catalog.

Program Transfer Deadlines

A student must be approved to transfer to the new program PRIOR to the beginning of an academic term in order for the admission to be effective for that term. If the admission process is completed after that deadline, whether because the file was not completed or because departmental action was not taken earlier, the admission will be effective for the next academic term. The term for which the applicant is admitted is stated in the official admission letter from Oakland University Graduate School.

If the student is not admitted to the desired new program, admission to the original graduate program will stand. Policy governing graduate programs requires that all credit applied toward a degree must be earned within six calendar years of the awarding of the degree.

Non-degree Seeking Graduate Admission Classifications

An applicant holding a baccalaureate degree, who wishes to enroll in graduate courses but does NOT have immediate graduate degree objectives, may request graduate non-degree status.

International students seeking F-1 or J-1 visas or those holding F-1 or J-1 visas are not eligible to apply for graduate non-degree admission. Non-degree students do not qualify for financial aid.

Graduate non-degree admission has two classifications: 1) Graduate Guest; and 2) Professional Development. The graduate non-degree classifications with the minimum admission requirements are described below.

Graduate Guest Classification

Applicants admitted to degree programs at other accredited institutions wishing to take courses at Oakland University for purposes of credit transfer should apply as a Guest Student in one of two ways: Regular Guest Student or Michigan Intercollegiate Graduate Studies (MIGS) Guest Student. Enrollment for all guest students is limited to 12 credits. Graduate guest students are typically admitted to Oakland University for one semester only.

Regular Guest Student

Graduate guest students are admitted to degree programs at institutions other than the Michigan institutions listed below. Applicants must apply as a Regular Guest Student using the [**Application for Admission to the Oakland University Graduate School**](#). A letter from the applicant's home institution confirming that the applicant is in good academic standing must also be submitted. Students should consult their advisers at their home institutions regarding the ability to transfer specific credits to their programs.

Michigan Intercollegiate Graduate Studies (MIGS) Guest Student

The Michigan Intercollegiate Graduate Studies (MIGS) program is a cooperative inter-institutional arrangement which permits graduate students to take advantage of educational offerings available at other participating institutions but not available at their own. It is open to any student in good standing in a graduate program at a member institution. Courses must be numerically graded courses (not graded P/F, S/U, or CR/NC) approved in advance by the student's graduate adviser and the MIGS liaison officer at both the home institution and the host institution. Admission by the host university is contingent on the availability of space and resources.

The member institutions are Andrews University, Aquinas College, Calvin College, Central Michigan University, Eastern Michigan University, Grand Valley State University, Madonna University, Marygrove College, Michigan State University, Michigan Technological University, Northern Michigan University, Oakland University, Saginaw Valley State University, Siena Heights College, University of Detroit Mercy, University of Michigan, Wayne State University and Western Michigan University.

Additional information is available from the [**Oakland University Graduate School**](#).

Professional Development Classification

The Professional Development classification is for students who are NOT interested in applying for an Oakland University graduate degree program. This classification of student typically belongs to one of the following categories:

- Seeking career advancement, professional development, or personal enrichment,
- Satisfying accreditation/licensure requirements,
- Applying for certification through the state of Michigan or an outside agency.

To be admitted into the graduate non-degree Professional Development classification at Oakland University, the applicant must submit the following documentation:

- Professional Development Application for Admission to Graduate Study
- Baccalaureate degree awarded from an accredited U.S. institution, OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government recognized standing. The date the degree was conferred must precede the date of enrollment in the graduate degree program.
- Official transcript providing evidence of an earned terminal degree (i.e., baccalaureate, master or doctoral degree)

Unofficial transcripts or photocopies of diplomas will be accepted along with the graduate Professional Development Application for evaluation purposes. The student must submit an official transcript and copies of any program required documents before the end of the first semester of enrollment.

Applicants admitted to the graduate non-degree Professional Development classification are subject to the following stipulations:

- Admission is granted to a particular school or college, but NOT to a specific graduate program.
- There is no limitation on the number of graduate credits that may be earned in this status.
- Departmental permission must be obtained, prior to enrolling for graduate courses, to assure proper academic preparation.
- There is no assurance that credits earned in this status will be approved and applied toward a graduate program.
- Not more than 12 credits would be eligible for review, approval, and application toward a graduate program at a later date. These credits must comply with requirements published in the time limit section of the Graduate Catalog.
- Graduate non-degree students who later decide to seek admission to a graduate program must submit an Application for Admission to Graduate Study and adhere to all admission requirements specified by the program.
- Graduate courses completed in a graduate non-degree admission classification will appear on a graduate transcript.

Admission terms and application deadlines

This is a general guide for submission of application material. Some programs have earlier closing dates for admission. Applicants should check the specific admission terms, application deadlines, and requirements for the program they wish to enter at www.oakland.edu/grad. If no dates are given, the following schedule will apply.

Term for which admission is requested	Regular Applicants	International Applicants
Fall Semester	July 15	May 1
Winter Semester	November 15	September 1
Summer Semester	March 1	January 1

Regular applicants

The graduate admission policy of Oakland University is selective, and the process is competitive. Applicants for graduate admission must present evidence that they have had the necessary academic preparation to enable them to pursue the graduate program for which they are applying.

Special Graduate applicants

Prospective students whose applications for program admission are incomplete on the designated date may be considered for special graduate admission if the program area permits admission in such status. Applications postmarked after the date designated for receipt of special graduate admission requests may be processed in time for late registration if the applicants so desire.

Applicants for special graduate status must submit an application for admission and a transcript that posts evidence of a bachelor's/master's degree. Admitted applicants to graduate programs who do not enroll for the term in which they were admitted must contact Graduate Admissions, 520 O'Dowd Hall, (248) 370-2700. If done within five terms of the date of original admission term, the student's application will be updated to a new term of admission. Thereafter, a new application and documentation are required. Inactive application files are destroyed after five terms.

International applicants

International applications are reviewed for fall, winter, and summer admission. To ensure adequate time for review, international applications must be completed at least six months before the desired date of intended enrollment in the university. All international application materials must be submitted by May 1 for fall admission, by September 1 for winter admission, and by January 1 for the summer semester. International applicants are not eligible for Special Graduate classification.

Non-US citizens applying for admissions to a distance learning program that does NOT require any on-campus instruction at Oakland University (100% online) are not subject to international application deadlines. Applicants should follow the published application deadlines for the distance learning program of interest.

Application for Degree deadlines*

Students must submit an online Application for Degree for the term in which they will complete degree requirements. A graduation audit is conducted during that semester to verify that the student has met all academic requirements for the degree. If students are completing a thesis or dissertation, they must follow the deadlines for format review, defense and submission for binding as published in the *Schedule of Classes*.

Winter Semester	Last Friday in January
Summer I Semester	Last Friday in January
Summer II Semester	Last Friday in May
Fall Semester	Last Friday in September

* Subject to change. Confirm with Academic Records or consult the *Schedule of Classes*.

Graduation Information

Information in this section is intended to guide you in completing your degree requirements. It is not a substitute for departmental advising. Students must meet with their departmental adviser to confirm that they have met all the following requirements and to determine what additional departmental requirements may exist.

Online Degree Evaluation

Oakland University Graduate School offers graduate students an online degree evaluation tool (WebCAPP), which is available for most master's and certificate programs, as well as selected doctoral programs. WebCAPP produces a report that shows how Oakland University courses, transfer credits, waivers/substitutions, and in progress courses apply toward degree requirements. A CAPP degree evaluation does not take the place of regular academic advising or the Oakland University Graduate Catalog.

To stay on track for graduation, it is recommended that students run a degree evaluation during each registered semester. Please note that these evaluations are considered unofficial and do not replace the official **graduation audit** conducted by Oakland University Graduate School. Final approval for graduation is required by the student's department and Oakland University Graduate School.

Any changes to the student's original, approved plan of study must be submitted to Oakland University Graduate School in order to be incorporated into the online degree evaluation system. Additionally, students should make sure that an updated, advisor-approved plan of study is on file in Graduate Study prior to applying for graduation.

While not a replacement for academic advising, the online degree evaluation tool allows students to self-assess progress toward a degree and can assist with registration and course selection. Students considering a program transfer will be able to determine how previously completed coursework might apply to the new degree program. Undergraduate students considering applying to certain graduate programs, such as the MBA and MPA, can check the status of their admissions prerequisites prior to submitting their application. More information about these features can be found in our online FAQs.

Check your progress toward degree by following these simple steps:

1. Access SAIL at <https://sail.oakland.edu> or by clicking the SAIL link from inside the student portal.
2. Once logged into SAIL, select Student Services & Financial Aid.
3. Select Student Records, and then select Degree Evaluation.
4. Select the current term and click Submit. (If you are selecting classes for registration, please select the term you are trying to register for.)
5. Your current curriculum information will appear. If your curriculum is not correct, please contact Oakland University Graduate School.
6. Select the Generate New Evaluation link at the bottom of the page.
7. Click the radio button next to your curriculum information, select your term of expected graduation, and then click Generate Request.
8. Click the radio button next to "Detail Requirements" and click Submit.

Thesis and Dissertation

Students are responsible for obtaining the publication "Guide to the Preparation of Theses and Dissertations" from www.oakland.edu/gradstudy. In addition, students must make an appointment prior to and after defense or presentation to assure that the manuscript conforms to university format standards. Three copies of the approved manuscript must be delivered to Oakland University Graduate School, 520 O'Dowd Hall, by the date stated in the Schedule of Classes for the term in which the student expects to graduate. Doctoral students must submit an additional copy to meet the Proquest (formerly UMI) publication requirement.

The university considers student theses and dissertations to be public statements of research findings. Therefore, students who submit such work in fulfillment of degree requirements shall be deemed to have consented to disclosure of the work.

Application for Degree

Formal application for a degree to be conferred must be filed online by the degree candidate. Information and instructions are available at www.oakland.edu/gradstudy. If filing is not timely, conferral is delayed to the next conferral period even though all other degree requirements may have been completed on time.

Application for degree deadlines*

Winter Semester Last Friday in January

Summer Semester Last Friday in May

Fall Semester Last Friday in September

* Subject to change. Confirm with Academic Records or consult the Schedule of Classes.

Graduation Audit

A formal graduation audit is a required evaluation of the student's academic record and Plan of Study to determine the student's eligibility for graduation. The audit, initiated by a student's [application for graduation](#), determines whether all University, degree, and program requirements have been satisfied.

Degree Conferral

Degree conferral requires that the student be in good academic standing and that all requirements for the degree have been completed satisfactorily. Degrees are conferred four times each year: April, June, August and December.

Degree Conferral Dates

Oakland University operates as an institution of higher education, providing the Board of Trustees of Oakland University with legal authorization to grant degrees to persons who have met all requirements for the completion of those degrees.

The Board of Trustees of Oakland University confers degrees three (3) times during the year. These three dates are Fall semester (December), Winter semester (April) and Summer semester (August). These conferral dates represent the official completion date for all degree awards, regardless of the actual date degree requirements are met within the specified term.

Receipt of Diplomas

Students who qualify for degree conferral receive their diplomas by mail, normally within two months following conferral.

Degree Confirmation Letters

When students complete all of their degree requirements well before the next degree conferral date, Oakland University Graduate School certifies in a formal letter that all degree requirements have been met and includes the expected date of degree conferral.

Commencement Information

Commencement ceremonies are held twice each year. A May ceremony recognizes Winter Semester (April) and Summer I (June) master's degree candidates and Winter Semester doctoral degree candidates. A December ceremony is held for Summer II (August) and Fall Semester (December) master's degree candidates and Summer I, Summer II, and Fall Semester doctoral degree candidates. For additional information on upcoming commencement ceremonies, please refer to the Schedule of Classes or www.oakland.edu.

Doctoral Student Participation in Commencement

Doctoral students are not eligible to participate in commencement without completing all degree requirements, including the dissertation defense and submission of an approved dissertation to Oakland University Graduate School. The dissertation must be signed by all committee members and must comply with the dissertation requirements as outlined in the Guide to the Preparation of Theses and Dissertations.

Master's Student Participation in Commencement Ceremony Before Completion of Degree Requirements

Within one term of completing their degree requirements, master's students may participate in commencement. A Request to Participate in Commencement Ceremony form must be approved by their academic adviser and department chair and submitted to Oakland University Graduate School for final approval.

Graduation Checklists

Graduation Checklist for Doctoral Students

To fulfill their graduation requirements, doctoral students must:

1. File a Plan of Study with Oakland University Graduate School, 520 O'Dowd Hall.
2. Submit an online **Application** for Graduation for the term in which they expect to graduate, by the deadline stated in the Schedule of Classes. If graduation requirements are not completed by the stated deadlines, students must change their graduation date by contacting Oakland University Graduate School, 520 O'Dowd Hall
3. Review their academic record for any unmet requirements:
 1. Incomplete (I) or progress (P) grades must be removed.
 2. Transfer credits must be approved and processed by the beginning of the semester of intended graduation.
 3. Transfer credits must have been completed within the 6-year time limit to count toward degree requirements.
 4. An overall 3.0 GPA must be achieved.
4. Submit verification that all comprehensive examinations have been completed to Oakland University Graduate School, 520 O'Dowd Hall.
5. Register for the term in which their dissertation will be defended.
6. Complete a successful dissertation defense by the deadline stated in the Schedule of Classes.
7. Attain format approval from Oakland University Graduate School by the deadline stated in the Schedule of Classes.
8. Submit for binding three copies of their format approved dissertation to Oakland University Graduate School by the deadline stated in the Schedule of Classes.
9. Submit an additional copy of their format approved dissertation to meet the Proquest (formerly UMI) publication requirement.
10. Submit an online Survey of Earned Doctorates (SED) questionnaire.

Graduation Checklist for Master's Students

To fulfill their graduation requirements, doctoral students must:

1. File a Plan of Study with Oakland University Graduate School, 520 O'Dowd Hall.
2. Submit an online **Application** for Graduation for the term in which they expect to graduate, by the deadline stated in the Schedule of Classes. If graduation requirements are not completed by the stated deadlines, students must change their graduation date by contacting Oakland University Graduate School, 520 O'Dowd Hall
3. Review their academic record for any unmet requirements:
 1. Incomplete (I) or progress (P) grades must be removed.
 2. Transfer credits must be approved and processed by the beginning of the semester of intended graduation.
 3. Transfer credits must have been completed within the 6-year time limit to count toward degree requirements.
 4. An overall 3.0 GPA must be achieved.
4. Submit verification that all comprehensive examinations have been completed to Oakland University Graduate School, 520 O'Dowd Hall.
5. Register for the term in which their dissertation will be defended.
6. Complete a successful dissertation defense by the deadline stated in the Schedule of Classes.
7. Attain format approval from Oakland University Graduate School by the deadline stated in the Schedule of Classes.
8. Submit for binding three copies of their format approved dissertation to Oakland University Graduate School by the deadline stated in the Schedule of Classes.
9. Submit an additional copy of their format approved dissertation to meet the Proquest (formerly UMI) publication requirement.
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Graduation and Commencement

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Students are responsible for obtaining the publication "Guide to the Preparation of Theses and Dissertations" from www.oakland.edu/gradstudy. In addition, students must make an appointment prior to and after defense or presentation to assure that the manuscript conforms to university format standards. Three copies of the approved manuscript must be delivered to Oakland University Graduate School, 520 O'Dowd Hall, by the date stated in the Schedule of Classes for the term in which the student expects to graduate. Doctoral students must submit an additional copy to meet the Proquest (formerly UMI) publication requirement.

The university considers student theses and dissertations to be public statements of research findings. Therefore, students who submit such work in fulfillment of degree requirements shall be deemed to have consented to disclosure of the work. New subpage content

Graduation and Commencement

New subpage

New subpage content

Out-of-State Complaints Procedure

Online Student Complaint Procedure for Out-of-State Students

Step 1: Out-of-state online students enrolled in Oakland University online courses or degree programs should attempt to resolve any issues or complaints directly with Oakland University. The process for filing a complaint can be found in the [Student Code of Conduct](#).

Step 2: If an issue cannot be resolved internally, you may file a complaint with the Michigan Portal Entity, [Michigan Dept. of Labor and Economic Opportunity](#). Contact information is also found can also be found on the NC-SARA [State Portal Entity](#) contact web page, in the Michigan section.

Step 3: If an issue cannot be resolved with the Michigan Portal Entity then you may file a complaint with your state portal entity. [State Portal Entity](#) contact information can also be found on the NC-SARA website.

A flowchart illustrating the SARA student complaint process can be found on [NC-SARA's student complaint](#) web page.

Professional Licensure and Certification Program Disclosures

Oakland University is required to provide general (public) disclosures to students in programs that lead to licensure or certification, regardless of instructional modality. Direct (individual) disclosures are provided to students located in a state where Oakland University does not meet or has not determined if they meet the educational requirements for licensure or certification. This rule applies to programs that are either:

- Designed to meet educational requirements for a specific professional license or certification that is required for employment in the occupation.
- Advertised as meeting the educational requirements for a specific professional license or certification.

[Additional Information can be referenced on oakland.edu.](#)

Academic Conduct Policy

All members of the [academic community](#) at Oakland University are expected to practice and uphold standards of academic integrity. Academic integrity means representing oneself and one's work honestly. Misrepresentation is cheating since it means the student is claiming credit for ideas or work not actually his or her own and is thereby seeking a grade that is not actually earned. All academic misconduct allegations are forwarded to the Dean of Students Office and adhere to the [Student Code of Conduct](#).

Examples of Academic Dishonesty:

1. **Cheating on assignments and examinations.** This includes, but is not limited to, the following when not authorized by the instructor: the use of any assistance or materials such as books and/or notes, acquiring exams or any other academic materials, the use of any other sources in writing drafts, papers, preparing reports, solving problems, works completed for a past or concurrent course, completing homework or carrying out other assignments. No student shall copy from someone else's work or help someone else copy work or substitute another's work as one's own. No student shall engage in any behavior specifically prohibited by an instructor in the course syllabus or class discussion.
2. **Plagiarizing the work of others.** Plagiarism is using someone else's work or ideas without giving that person credit. By doing this, a student is, in effect, claiming credit for someone else's thinking. This can occur in drafts, papers and oral presentations. Whether the student has read or heard the information used, the student must document the source of information. When dealing with written sources, a clear distinction should be made between quotations, which reproduce information from the source word-for-word within quotation marks, and paraphrases, which digest the source of information and produce it in the student's own words. Both direct quotations and paraphrases must be documented. Even if a student rephrases, condenses or selects from another person's work, the ideas are still the other person's and failure to give credit constitutes misrepresentation of the student's actual work and plagiarism of another's ideas. Buying a paper or using information from the Internet without attribution and handing it in as one's own work is **plagiarism**.
3. **Cheating on lab reports** by falsifying data or submitting data not based on the student's own work.
4. **Falsifying records** or providing misinformation regarding one's credentials.
5. **Unauthorized collaboration on assignments.** This is unauthorized interaction with anyone in the fulfillment of academic requirements and applies to in-class or take-home coursework. Individual (unaided) work on exams, lab reports, homework, computer assignments and documentation of sources is expected unless the instructor specifically states in the syllabus or verbally that it is not necessary. Collaboration can also include calculating homework problems with another person, having another help to rewrite a paper, sharing information/sources with others and checking coursework with others.

6. **Resubmission of original work.** When an instructor assigns coursework, the instructor intends that work to be completed for his/her course only. Work students may have completed for a course taken in the past, or may be completing for a concurrent course, must not be submitted in both courses unless they receive permission to do so from both faculty members.

Faculty Standards

Faculty members are expected to maintain the following standards in the context of academic conduct:

1. To inform and instruct students about the procedures and standards of research and documentation required to complete work in a particular course or in the context of a particular discipline.
2. To take practical steps to prevent and detect cheating.
3. To report suspected academic misconduct to the Dean of Students, 144 Oakland Center, for consideration by the Academic Conduct Committee of the University Senate.
4. To present evidence of plagiarism, cheating on exams or lab reports, falsification of records, or other forms of academic misconduct before the Academic Conduct Committee.

Student Standards

Students are expected to abide by the following standards in the context of academic conduct:

1. To be aware of and practice the standards of honest scholarship.
2. To follow faculty instructions regarding exams and assignments (including group assignments) to avoid inadvertent misrepresentation of work.
3. To be certain that special rules regarding documentation of term papers, examination procedures, use of computer-based information and programs, etc., are clearly understood.
4. If a student believes that practices by a faculty member are conducive to cheating, he or she may convey this information to the faculty member, to the chairperson of the department, or to any member of the Academic Conduct Committee, either directly or through the Dean of Students Office.

Student Responsibility

Student Responsibility

Graduate students are governed by the policies of the University, Graduate Council and their academic program. It is the responsibility of the graduate student to comply with these policies and procedures and all applicable graduate program requirements that govern the individual program of study. Oakland University Graduate School administers academic policies and procedures and enforces graduate degree requirements which are determined by the Graduate Council and are applicable to all graduate students.

Degree Program Requirements, Policies and Regulations

Graduate Catalog

The Graduate Catalog in effect when a student is granted an offer of admission to the graduate program is the primary source of degree and program requirements. Students readmitted to a degree program must meet the degree requirements of the catalog in force at the time of the readmission. In addition to the degree and graduate program requirements in effect at the time of admission, all graduate students are subject to the policies and regulations stated in the current graduate catalog.

Most graduate programs also have supplementary student handbooks that provide students procedures and requirements specific to their discipline. It is important that graduate students adhere to all degree program requirements and policies and regulations to ensure satisfactory academic performance and subsequent graduation.

All data in the Oakland University Graduate Catalog reflects information as it was available at the publication date.

Student Responsibility for Monitoring Current Information

The University reserves the right to make changes in its programs, policies, rules, regulations, procedures, fees, tuition, housing rates, organizational structure, faculty, and staff through the appropriate University processes. Every effort will be made to give as much advance notice as possible and publicize such changes. Because responsibility for complying with all applicable degree requirements ultimately rests with the student, Graduate Council urges all students to maintain close contact with their faculty adviser and appropriate administrative offices.

Oakland University Graduate School is the authoritative office for verifying deviations from provisions in the Graduate Catalog.

Exception to Graduate Catalog policy

Graduate students are expected to follow the policies and regulations in the Graduate Catalog. However, in unusual circumstances, an exception to policy may be requested. Exceptions to policies contained in the Graduate Catalog require the student to initiate a written **Petition of Exception**. The petition must be approved by the faculty adviser, graduate program coordinator or GCOI, and Oakland University Graduate School.

Exceptions will not be granted because a student pleads ignorance, or contends that he or she was not informed of policies or regulations.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a Plan of Study that details specific courses the students will use to satisfy their degree requirements. The Plan of Study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved Plan of Study by the end of their first semester of graduate coursework. Doctoral students must submit an approved Plan of Study prior to completion of the first year of coursework.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Approved Plan of Study

An approved Plan of Study may be amended at any time. Until formal approval of an updated Plan of Study is made, your original or current modification of the plan will remain in effect. Graduate students are responsible for meeting with their faculty adviser on an ongoing basis, keeping their Plan of Study updated, and monitoring their academic progress through .

Services and Support

Office of the Registrar and Registrar Services

The **Office of the Registrar** supports registration, records, transfer credit information, and much more.

Whether you're a student or faculty member, we always make sure you are supported. We are available to assist students virtually and in-person, via phone, email, **Google Hangout** and **Google Meet**. Students may also use the Ask Grizz chat feature for 24/7 assistance. If you have a question, we'll find the answer. Office hours are M-F 8am – 5pm. If you need an appointment outside of our regular office hours, you may contact us.

We are committed to ensuring you are able to access our website. For assistance with technical resources, contact OU's **Student Technology Center**

Student Affairs

The Division of Student Affairs provides transformational experiences and co-curricular learning to foster student success. The Office of the Vice President for Student Affairs & Engagement is located in the Oakland Center, Suite 150 or by calling (248) 370-4200. Department information can be found on our website **oakland.edu/studentaffairs**. Brief descriptions of services for students follow.

Dean of Students

The Dean of Students serves as an advocate for the development of programs and services to meet the needs of students. As such, the dean of students monitors the university environment, administers the student code of conduct, assists with student life policy development, and serves as an advocate for students facing academic, financial and personal problems while enrolled at Oakland University. The Dean of Students office is located in the Oakland Center, Suite 150 or please call (248) 370-3352 or visit our website **oakland.edu/deanofstudents**.

Career and Life Design Center

The Career and Life Design Center supports current OU students and alumni explore possibilities, test ideas, and take intentional next steps toward meaningful careers and lives aligned with their values and strengths by providing: to develop professionally by providing:

- Career exploration strategies
- Job search resources and guidance
- Resume, cover letter, and personal branding support
- Career-related programming, workshops and fairs
- Access to Handshake, an online database for on-campus and off-campus internships/jobs and Digital Resource Library

Visit the Career and Life Design Center in North Foundation Hall, Room 103 to schedule an appointment with a Career and Life Design Coach, or drop-in to the Career Studio when the inspiration strikes to work with a Career Ambassador on a resume, cover letter or free professional headshot. Visit the Career and Life Design Center website **oakland.edu/cldc** for current hours and more information, or call (248) 370-3250.

Center for Multicultural Initiatives

The Center for Multicultural Initiatives (CMI) was established in 1993 to advance Oakland University's commitment to diversity by increasing the retention and graduation of a culturally diverse student body by developing strategies that engage all students in the attainment of academic excellence and social success. CMI provides programs and services to students who are interested in developing leadership and study skills, networking with fellow students, faculty and staff; and celebrating diversity. It also administers the Oakland University Trustees Academic Success Scholarship and oversees several other scholarships, loans and peer mentor programs. The CMI's mission is to provide support for underrepresented students' success and to foster an appreciation for campus-wide diversity. The CMI is located in 104 North Foundation Hall, by phone at (248) 370-4404 or visit our website oakland.edu/cmi.

Gender and Sexuality Center

The Gender and Sexuality Center (GSC) serves all faculty, staff and students regardless of sexual orientation or gender identity. The Gender and Sexuality Center serves Oakland University's LGBTQIA community by providing and fostering a campus environment that promotes inclusion and understanding around issues of gender and sexuality through education, outreach and advocacy for all members of the OU community. For more information, visit in person at 104J North Foundational Hall, contact 248-370-4336, email us at gsc@oakland.edu or visit oakland.edu/gsc.

Veterans Support Services

Veterans Support Services (VSS) provides a supportive and welcoming environment for all veterans, service members and their dependents. Whether on active duty, in the reserves, or entitled to Vocational Rehabilitation services, we are dedicated to ensuring veterans achieve their academic and personal goals. For more information, visit in person at 112 Vandenberg Hall, contact 248-370-2010, email us at vss@oakland.edu or visit oakland.edu/veterans.

Disability Support Services

Disability Support Services is committed to providing a welcoming and supportive environment for students with disabilities. Located in 202 Wilson Hall, the office provides accommodations, advocacy and referrals. Services are determined through an individualized interactive process. Accommodations and services may include, but are not limited to, priority registration, alternative testing arrangements, assistive technology, alternative media formats and sign-language interpreting services. Students are encouraged to schedule an appointment promptly to ensure support throughout the semester. To register, or for more information, contact the DSS Office by email at dss@oakland.edu, by phone at (248) 370-3266 or visit oakland.edu/dss.

Graham Health Center - Health Services

Graham Health Center provides convenient, affordable, high-quality health care on campus for the OU community. We are staffed by certified Nurse Practitioners and Physician Assistants who have extensive education and clinical training. These professionals:

- Provide primary care services, including physical exams, preventative healthcare, disease prevention and screening tests.
- Diagnose and treat acute illness, minor injuries and chronic disease
- Prescribe medications and order necessary laboratory and diagnostic tests and treatments
- Promote positive health behavior and self-care skills through education and counseling
- Immunization services
- Maintenance allergy injections
- Travel Health consultation

A physician is available to consult with the advanced practice clinicians and may be available for telehealth with patients when indicated. We now offer a secure patient portal that is only accessible to the patient and the health center staff. The portal offers secure messaging, access to health records, and some appointment scheduling. Many health insurances are accepted. The center is located at 408 Meadow Brook Road. For more information contact 248-370-2341, email health@oakland.edu or visit oakland.edu/ghc.

OU Counseling Center

The Oakland University Counseling Center located in the Graham Health Center, provides short-term confidential counseling, group therapy and consultations to university students. The personal counseling services provide treatment for a wide variety of presenting issues, including: relationship difficulties, depression, anxiety, eating disorders, grief and loss, sexual assault/trauma, academic difficulties, career/major difficulties, and family or marital problems. Additionally, psychiatric services are available through the GHC for students who require medication as an adjunct to counseling. For students experiencing drug or alcohol problems, Grizz Recovery provides, assessment, support, meetings, and referral services are available. The Counseling Center engages in many outreach activities including screenings for depression, anxiety, eating disorders and alcohol abuse, as well as offering workshops on a wide variety of topics. Strict rules of confidentiality are observed.

The first four counseling sessions for students are free. After that, the following 11 sessions are available at 20 dollars per session. In addition, the OUCC now contracts with Uwill, which provides both a 24/7 crisis line and 3 free supplemental teletherapy sessions. Students may contact OUCC directly at (248) 370-3465. For more information, visit oakland.edu/oucc.

Oakland Center

The Oakland Center is the hub of campus activity, serving students, faculty, staff, alumni and guests of Oakland University. The OC, as it is commonly referred to, offers a wide variety of social, recreational, cultural and entertainment programs. The center is open seven days a week and is conveniently located in the heart of the campus where students can find an abundance of spaces to study, socialize and more. Check out spaces such as The Habitat, the Grizz Den eSports and game room, reflection room, and various student work rooms. The OC features a variety of dining options, all conveniently located on the main level. Visit the Oakland University Gear Shop in the OC for all your Golden Grizzly apparel and swag. You can also pick up your course materials ordered through the official online OU bookstore site oakland.eCampus.com.

Additional offices and services located inside the Oakland Center include the Oakland University Credit Union, the Office of the Vice President for Student Affairs and Engagement, Dean of Students, the ID Card Office, the Office for Student Involvement, the Golden Grizzlies Food Pantry, University Tech Center, Oakland University Student Congress, the Student Program Board, The Oakland Post student newspaper, the campus radio station WXOU, Student Video Productions, and Oakland University's campus food service partner Chartwells.

The OC office is located in Suite 151 in the Oakland Center. For information on hours or to reserve a room visit oakland.edu/oc.

Office for Student Involvement (OSI)

Office for Student Involvement (OSI) provides students with social, educational, leadership, diversity, and community service opportunities that complement their academic experience through campus programming and student organizations. Campus programming includes comedy, game, and talent shows, concerts, movies, and lectures. Student organizations represent a broad range of professional and personal interests, from academic, community service, honor societies, multicultural, political, faith-based, and social clubs to Greek fraternities and sororities. Students unable to find an organization serving their particular interests are encouraged to form new groups. Access to student organizations and their websites can be found on GrizzOrgs which features organization descriptions, officer and advisor contact information, an event calendar, forms, and messaging. Other resources within the OSI are the Leadership and Volunteer Center, Student Resource Center, and Service Window for ticketed events, on and off campus. OSI manages the Golden Grizzlies Pantry with access to basic necessities to reduce food insecurity, offering nutritious food and hygiene products. Also available is a clothes closet to give students access to professional clothing options. Both the Golden Grizzlies food pantry and clothes closet are free to use.

The Office for Student Involvement provides administrative oversight for the following student organizations: Oakland University Student Congress (OUSC) is the governing body that addresses student issues and concerns. Student Activities Funding Board (SAFB) allocates operating funds to recognized student organizations. Student Program Board (SPB) is responsible for major social programs, activities, and events on campus. The Oakland Post is the student campus newspaper, published bi-monthly during the academic year. WXOU 88.3 FM is the student radio station providing an alternative to commercial radio. Both The Oakland Post and WXOU can be accessed online as well. Student Video Productions (SVP) provides opportunities to engage in television broadcasting and video production. These, as well as all student organizations, provide experiential learning opportunities connecting OU students to their peers, classes, and communities.

For more information on how to get involved, contact the Office for Student Involvement, Lake Superior Room, Oakland Center, call (248) 370-2400, email osi@oakland.edu, or visit oakland.edu/osi.

University Housing

Oakland University's residence halls and apartments offer a special way of life for more than 3,000 students each year and provide the opportunity to live with different people, develop social and leisure interests, begin lifelong friendships and become involved as a student leader. The housing community is spirited and engaging, and is situated within easy walking distance from classrooms, the library and recreational facilities.

University Students and Affiliated Students: To be eligible to reside in University Housing as a "University Student" or "Affiliated Student," individuals must be: (a) formally admitted to the University as matriculated or conditionally admitted students in a degree seeking program at the University and enrolled in a minimum of one (1) credit hour during each fall, winter, or summer semester in which they reside in University Housing; or (b) for purposes of the summer semester only, formally admitted to the University as matriculated or conditionally admitted students in a degree seeking program at the University and enrolled in a minimum of one (1) credit hour in the upcoming fall semester; or (c) matriculated students in a degree-seeking program at another college or university that has an affiliation or exchange agreement with the University and who are attending the University as part of a program covered by one of the affiliation or exchange agreements; or (d) participating in the University's semester abroad program.

In addition, students who have been admitted to the University's English as a Second Language Institute ("ESL Institute") are eligible to reside in University Housing if they: (i) have either applied to a degree-seeking program at the University or have indicated on their ESL Institute application that they intend to pursue a degree at the University; (ii) are required to complete coursework in the University's ESL Institute in order to meet the University's English language proficiency admissions requirements; (iii) have been issued an I-20 or DS-2019 from the University for their ESL Institute studies; (iv) are enrolled full-time in ESL Institute courses; and (v) are making satisfactory academic progress in their ESL Institute program as determined by the University.

ESL Institute students may be registered less than full-time if they are either participating in the University's American Semester Abroad Program or are in the final semester of their ESL Institute coursework and are enrolled in at least the minimum number of courses/credits to fully complete their ESL Institute program in that semester.

Students enrolled in continuing education classes or other non-degree programs are not formally admitted to the University and are therefore not eligible to reside in University Housing.

Students must also complete at least 16 credit hours and be in good standing and be a non-first-year resident to reside in the Apartments.

II. Non-University Students: To be eligible to reside in University Housing as a "Non-University Student", individuals must be participating in: (a) a University Housing MOU; or (b) the University's intern housing program; or (c) the University's visiting scholar research program; or (d) a University authorized summer camp program.

Non-University Student housing is available only after the housing needs of eligible University Students and Affiliated Students have been met.

Upon their acceptance at Oakland University and the submission of a valid housing contract, students' housing assignments will be processed by the University Housing Office. For more information, please contact the Department of University Housing, 448 Hamlin Hall, Oakland University, Rochester, MI 48309-4401 or visit our website, oakland.edu/housing.

Office of Title IX and Compliance

The Office of Title IX and Compliance ensures compliance with federal and state civil rights and equal opportunity laws and regulations, specifically Title IX and Title XI of the Civil Rights Act and Elliot-Larsen Civil Rights Act. The staff ensures compliance through policy development, training and responding to reported concerns through conflict resolution and investigation. The staff also ensures compliance with the Americans with Disabilities Act across campus and is responsible for handling requests for reasonable accommodations. The staff also develops, implements, and assesses strategies and initiatives to aid in the recruitment and retention of diverse faculty and staff through the development and implementation of the federally required affirmative action plan. For more information on Title IX and Compliance, visit the oakland.edu/title-ix-and-compliance. The office is located at 119 W. Wilson Hall or call (248) 370-4700.

Office of the University Ombudsperson

The Office of the University Ombudsperson is committed to promoting a fair, respectful, and inclusive university environment by providing a **confidential, neutral, impartial, and independent** resource for members of the Oakland University community.

The Ombudsperson serves as a trusted listening partner and thought-provoking guide for **faculty, staff, students, and administrators**, helping individuals navigate concerns related to communication, workplace or academic conflict, policies, and university processes. By offering consultation, coaching, and conflict-management support, the office empowers individuals to explore options, identify resources, and make informed decisions aligned with their values and institutional responsibilities.

Through both **individual consultations and broader institutional engagement**, the Office of the University Ombudsperson contributes to a culture of accountability, dignity, and mutual respect. Insights gathered-without breaching confidentiality-help identify systemic issues and opportunities for organizational learning, supporting continuous improvement across the university.

The Office of the University Ombudsperson plays an important role in strengthening trust, improving communication, and advancing Oakland University's commitment to integrity, civility, and inclusive excellence.

For more information or to request a confidential consultation, please visit the Office of the University Ombudsperson at <https://www.oakland.edu/ombuds/> or contact the office directly. The office is located at 119 W. Wilson Hall.

University Technology Services

ID Card Office

The ID Card Office is home of the GrizzCard and GrizzCa\$h. The GrizzCard is the official identification card for Oakland University. Your GrizzCard provides access to your GrizzCa\$h account, library materials, printing on campus, meal plans, and your residence hall. GrizzCa\$h is an on-campus-only pre-paid debit account that can be used at various campus locations including campus dining locations, including the Pioneer Food Court, the OSI Service Window, print stations and more. The ID Card Office is located in Suite 149 in the Oakland Center. For more information visit our website oakland.edu/grizzcard or call (248) 370-2291.

University Tech Center

The IT office oversees the **Student Technology Center (STC)**, which serves as the headquarters for the promotion, instruction and support of technology literacy to support classroom learning. The STC offers a hands-on training experience on some of the latest graphic design, video editing, web development, photography, and office productivity software used in the industry. Additionally, students can borrow laptops and other technology equipment from the Center. The Student Technology Center is located at 44 Oakland Center, (248) 370-4832 or visit oakland.edu/stc.

Community Engagement (OU-Pontiac Initiative)

Community Engagement (OU-Pontiac Initiative) is committed to helping advance the City of Pontiac while enhancing experiential learning opportunities for Oakland University students. For more than a decade, a network of leaders from the City of Pontiac, Oakland University and the local community served as Pillar Leaders for the six focus areas: Birth to Grade 16 Education, Civic Engagement, Economic and Workforce Development, Healthcare and Wellness, Arts and Culture and Building Capacity for Non-profits and Neighborhoods. The programs and impact of the work of faculty, staff, students and community partners has made a lasting impact on the future of Pontiac.

In 2024, the OU-Pontiac Initiative earned recognition as a national community engagement model by the American Association of State Colleges and Universities. The OU-Pontiac Initiative was also instrumental in Oakland University receiving the prestigious Carnegie Community Engagement Classification for "exceptional commitment and success in community engagement." For more information regarding the OU-Pontiac Initiative, please call (248) 370-4455 or visit our website at oakland.edu/oupi/.

Kresge Library

Located in the center of campus, the **Kresge Library** serves as the academic hub for Oakland University. It spans four floors of study spaces and houses over 747,000 print books, 40,000+ journals, and the university archives. The facility offers a wide array of student resources, including a Makerspace, the Suzanne O. Frankie Café, and tech-equipped study areas.

Writing Center

The **Oakland University Writing Center** is open to OU students, faculty, and staff in all disciplines at any stage of the writing process. The center provides writers with an interested and supportive audience of well-trained consultants who help both novice and expert writers explore ideas, revise drafts, and develop the skills to craft polished works.

Whether you are a nursing student, a future teacher, a prospective scholarship recipient, a graduate dissertation writer, or a faculty member preparing for tenure review, learn more about the writing center by exploring this site and by visiting Oakland University's "Write Space."

Graduate Academic Advising

Faculty Adviser

Each degree student is assigned a faculty adviser upon admission to a graduate program. Faculty advisers can provide students with assistance in developing a Plan of Study and selecting appropriate graduate courses that adhere to program curriculum, as well as discussing career options and alternatives after graduation. It is the responsibility of the graduate student to comply with the policies, procedures and degree requirements published in the Graduate Catalog.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

The Graduate Catalog defines the policies and program requirements for completion of each graduate degree program at Oakland University. A graduate student is governed by the degree program requirements published in the graduate catalog in effect at the time the student is admitted to the graduate program. Some graduate degree programs establish a framework of general course requirements that expects a graduate student to select specific courses and/or research exit options. Other graduate degree programs establish explicit course requirements that extend a graduate student few or no course and/or research exit options.

Purpose for a Plan of Study

A Plan of Study, completed in consultation with the faculty program adviser, details specific courses, research exit options and the specific graduate catalog a graduate student will use to satisfy their degree program requirements in a timely manner and in accordance with all appropriate rules and guidelines of the graduate program.

The Plan of Study, submitted to Oakland University Graduate School, will be placed in the graduate student's academic file and used during the graduation audit process to approve graduate program degree requirements.

Most faculty advisers use a Plan of Study template designed for their specific graduate program.

Recommended Timeline

It is the recommendation of Graduate Council that each graduate student consult with their faculty adviser during the first semester, and no later than the end of the first year in their graduate program to develop a written Plan of Study. This Plan of Study, approved by their graduate program adviser, must be submitted to Oakland University Graduate School.

Updates to an Approved Plan of Study

A Plan of Study may be amended at any time using a Request to Update Approved Plan of Study form. Until formal approval of an updated Plan of Study is made, the original or current modification of the plan will be in effect. Graduate students are responsible for meeting with their faculty program adviser on an ongoing basis to keep their Plan of Study updated, as needed. Graduate students, who do not submit a Plan of Study to Oakland University Graduate School, will be approved against program degree requirements published in the graduate catalog in effect at the time the student was admitted to the graduate program.

Graduate Assistantships, Scholarships and Fellowships

Graduate Assistantships

The Oakland University Assistantship programs provide students an opportunity to gain professional experiences, which enhance graduate instruction and research, while contributing financial assistance to the successful completion of a graduate degree. Oakland University budgets financial resources for a number of graduate assistantships that are made available to full-time, degree-seeking graduate students.

Assistantship structure and definition

All graduate assistantships have a service obligation for which the student receives a stipend. Stipends vary according to program and degree level (doctoral and master's). Graduate assistantships are for the 15-week semester or the academic year and are either a full-time appointment, which requires 20 hours per week service obligation, OR a half-time appointment, which requires 10 hours per week service obligation.

An accompanying tuition reduction, which has no service obligation, is awarded to the student for graduate coursework.

Assistantship tuition reduction

Tuition reductions are equal to the full amount of tuition (excluding any special charges) for each semester during the term of the appointment, up to the maximum number of credits per semester identified in the signed agreement. All graduate students holding an assistantship or fellowship awarded through Oakland University are charged in-state rates during the awarded enrollment period.

1. A tuition reduction is provided for graduate courses or research that contributes directly to the satisfaction of degree requirements.
2. In circumstances where undergraduate courses are substituted on an approved Plan of Study, no more than 12 credits will be allowed per graduate policy.
3. Each semester a tuition reduction will be credited to the student's account according to the percentage of the assistantship: 8 credit tuition reduction = full-time offer 4 credit tuition reduction = half-time offer
4. Any tuition reduction benefits (credits), which are not used during the term in which the student holds the appointment are lost.
5. Assistantship agreements are subject to cancellation if the student does not meet the minimum enrollment requirement.

Assistantship administration

Graduate Assistants (GA) at Oakland University are under the direct supervision of the department, program, or unit that offers the appointment. The department determines the GA assignment, supervises his or her work, and recommends him or her for reappointment and promotion to various compensation levels. The department is the primary source of information for the details of the assistantship. Within the academic or non-academic unit, the GA work assignment is determined by the faculty member or director assigned to supervise the GA's particular course, laboratory session, or research project.

Assistantship eligibility and requirements

To be awarded an assistantship, the following are required:

1. Students must have full standing admission status to a specific graduate degree program.
2. Students with a limited standing admission status may be considered for an appointment if the conditional requirements can be met within the first semester of the award enrollment period. An assistantship award will be terminated should the conditional requirements not be satisfied.
3. Students must be in good academic standing.
4. All students with graduate assistantships are expected to maintain a full-time enrollment status at Oakland University during the semester(s) for which they are appointed.
5. Graduate Assistants must maintain an overall grade-point average of 3.0 AND show satisfactory progress toward completing degree requirements.
6. Students may not hold other employment positions during the term of appointment, either at Oakland or elsewhere, without prior written permission from their adviser and Oakland University Graduate School.

7. Students must apply through [Handshake](#).

Applying for graduate assistantships

Graduate Study and Career Services have been working together to improve the hiring of Graduate Assistants (GA) through Handshake. Students must [apply in Handshake](#) to any open positions they are interested in.

Graduate assistantship time limit policy

Graduate Assistantship positions, funded by Oakland University Graduate School, are limited to two years for master's degree students and four years for doctoral students. If units wish to continue supporting a student beyond this time, it requires position funding from the school or college.

Council of Graduate Schools resolution

Oakland University subscribes to the Resolution adopted by the Council of Graduate Schools which, among other provisions, states students are under no obligation to respond to assistantship offers prior to April 15. In those instances in which the student accepts the offer before April 15 and subsequently desires to withdraw, the student may submit in writing a resignation of the appointment at any time through April 15.

An acceptance given or left in force after April 15 commits the student not to accept an offer from another institution. In order to accept an assistantship offer at another institution after April 15, prospective graduate assistants must first obtain a written release from any other institution to which a previous commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer.

Fellowships

King/Chavez/Parks Future Faculty Fellowship Program

The [King-Chavez-Parks Future Faculty Fellowship Program \(KCP\)](#) was designed to increase the pool of traditionally underrepresented candidates pursuing faculty teaching careers in postsecondary education. We encourage applications from minorities, women, people with disabilities and individuals with cultural, linguistic, geographic and socio-economic backgrounds who would otherwise not adequately be represented in the graduate student and faculty populations. Preference will not be given to applicants on the basis of race, color, ethnicity, sex, or national origin. Future Faculty Fellowship graduates are obligated to teach in a postsecondary institution or administration for three years.

Federal Traineeship Grants

The School of Nursing applies each year for Federal Traineeship Grants. Funds for the traineeship come from the Bureau of Health Professions, Health Resources and Services Administration (HRSA). The purpose is to support traineeships for licensed registered nurses enrolled as full-time graduate students, first-year Nurse Anesthesia students, part-time students in the last 12 months of their program, or full-time students beyond the twelfth month of study in a master's nurse anesthesia program.

Financial assistance

Additional financial aid available to graduate students includes Federal Perkins Loans, Federal Subsidized and Unsubsidized Stafford Loans, Federal Work-Study employment, and short-term loans. Please visit [Financial Aid](#) for detailed information on financial aid processing and programs.

NEW Programs (2026-2027)

Programs

[Safety Management/MBA Dual Degree Program](#)

Certificates

[Supply Chain Analytics, Graduate Certificate](#)

Combined Bachelor/Masters

[Interdisciplinary Studies/Public Administration](#)

Combined Bachelor/Graduate Certificate

[Interdisciplinary Studies/Court Administration](#)

[Interdisciplinary Studies/Criminal Justice Leadership](#)

[Interdisciplinary Studies/Health Care Administration](#)

[Interdisciplinary Studies/Local Government Management](#)

[Interdisciplinary Studies/Nonprofit Organization and Management](#)

[Spanish Language and Literature/Court Administration](#)

[Spanish Language and Literature/Criminal Justice Leadership](#)

[Spanish Language and Literature/Health Care Administration](#)

[Spanish Language and Literature/Local Government Management](#)

[Spanish Language and Literature/Nonprofit Organization and Management](#)

Accounting & Finance Department

Accounting & Finance

Through the dedicated guidance of expert faculty, students in Oakland University's Accounting and Finance programs gain insight into the intricacies of complex industries. A rigorous curriculum and active student organizations connected with established professionals prepare students to launch successful careers.

Oakland University's School of Business Administration is one of only a small percentage of business schools around the world to hold the elite AACSB-International accreditation in both its business and accounting programs.

Programs

Finance

FinTech

Accounting

Accounting

Finance

Accounting

Courses

ACC 5050 Business Law for Acctg & Finan

ACC 5110 Financial Accounting

ACC 5120 Managerial Accounting Systems

ACC 5150 Principles of Taxation

ACC 5180 Accounting Information Systems

ACC 5210 Income Tax II

ACC 5220 Auditing

ACC 5240 Government/Not-for-Profit Acct

ACC 5260 AIS: Audit and Control

ACC 5310 Advanced Financial Accounting

ACC 5500 Tax Research, Planning and Adm

ACC 5520 International Tax

ACC 6000 Financial Reporting & Analysis

ACC 6010 Financial Analysis & Valuation

ACC 6170 Int'l Fin Actg Standards & Rptg

ACC 6200 Cost Management

ACC 6220 Audit Analytics

ACC 6250 Fed Income Taxation for Bus

ACC 6260 Enterprise Risk Management

ACC 6300 Accounting & Communication

ACC 6310 Fraud Examination

ACC 6500 Professional Issues in Acc

ACC 6900 Special Topics in Accounting

ACC 6970 Independent Study/Accounting

ACC 6995 Prof Accounting Research

FIN 5250 Financial Derivatives

FIN 5330 Financial Management

FIN 5450 Real Estate Invest Analysis

FIN 5600 Investment Analysis

FIN 5680 Financial Modeling

FIN 5690 Financial Institutions Mgt

FIN 5700 International Financial Mgt

FIN 5720 Adv Financial Management

FIN 5760 Financial Data Analytics

FIN 5840 Deep Learn/Neural NW in Fin

FIN 6055 Portfolio Management

FIN 6070 Fixed Income Analysis

FIN 6370 Financial Strategies

FIN 6900 Special Topics in Finance

FIN 6970 Independent Study/Finance

Art, Art History and Design Department

Art, Art History and Design

Courses

AH 5900 Special Topics in Art/Art Hist

Bach Interdisciplinary Studies Department

Bachelor of Interdisciplinary Studies

Programs

Interdisciplinary Studies/Counseling

Interdisciplinary Studies/Clinical Mental Health Counseling

Interdisciplinary Studies/Court Administration

Interdisciplinary Studies/Nonprofit Organization and Management

Interdisciplinary Studies/Local Government Management

Interdisciplinary Studies/Criminal Justice Leadership

Interdisciplinary Studies/Public Administration

Interdisciplinary Studies/Health Care Administration

Bioengineering Department

Bioengineering

The Department of Bioengineering is an interdisciplinary academic unit that bridges the School of Engineering and Computer Science and the College of Arts and Sciences. It offers a comprehensive education that integrates principles from biological sciences, engineering, and computational technologies. This multidisciplinary approach prepares students for rapidly evolving careers in cutting-edge fields that blend life sciences with advanced engineering applications, such as bioinformatics, biomedical imaging, sensor technology, tissue engineering, bionics, genetic engineering and microelectromechanical systems (MEMS).

Programs

Bioengineering

Courses

BE 5000 Principles of Bioengineering

BE 5100 BioMed Signal Processing

BE 5110 Medical Imaging

BE 5120 Medical Image Analysis

BE 5130 Ultrasound & Photoacoustic Ima

BE 5140 AI in Medicine

BE 5150 Medical Sensing and Design

BE 5200 Genetic and Genomic Eng

BE 5300 Bioprocess Engineering

BE 5400 Tissue Engineering

BE 5500 Musculoskeletal Biomechanics

BE 5600 Intro to Neural Engineering

BE 6998 Master's Thesis Research

Biological Sciences Department

Biological Sciences

The Department of Biological Sciences houses accomplished laboratories with advanced technologies, carrying out cutting-edge biomedical, translational, basic science, and ecological research. Our modern facilities include a computation center and aquatic field research sites, as well as collaborations with local hospitals and use of campus natural habitats. Many of our laboratories receive external funding from private foundations and national agencies including the National Institute of Health, National Science Foundation, U.S. Environmental Protection Agency, and NASA. Our graduate programs promote biological discoveries within an engaging and stimulating environment. Faculty are committed to providing exceptional teaching and research experiences. Together we will help you grow a lifelong passion for the biological sciences and reach your career goals.

Programs

Biomedical Sciences

Biology

Biology

Biological and Biomedical Sciences

Courses

BIO 5101 Gross Anatomical Dissect

BIO 5210 Molecular Biology

BIO 5222 Stem Cell Biology

BIO 5224 Science of Vision

BIO 5226 Immunology

BIO 5230 Cellular Biochemistry

BIO 5240 Mechanisms of Development

BIO 5241 Lab Dev Biology/Morphology

BIO 5251 Cellular Biochemistry Lab

BIO 5255 Adv Methods Molecular Genetics

BIO 5256 Adv Tp: Cellular/Biochem/Metab

BIO 5257 Lab Cellular Biochm/Metabolism

BIO 5310 Conservation Biology

BIO 5320 Medical Parasitology

BIO 5321 Medical Parasitology Lab

BIO 5330 Ecology of Streams/Rivers

BIO 5332 Lake Ecology

BIO 5334 Topics Physiological Ecology

BIO 5336 Topic/Community/Population Bio

BIO 5338 Food Systems Biology

BIO 5342 Topic: Evolutionary Biology

BIO 5350 Topics Behavioral Biology

BIO 5380 Ecological Problem Solving

BIO 5381 Experimental Ecology Lab

BIO 5388 Design/Analysis Bio Expts

BIO 5400 Advanced Genetics

BIO 5412 Functional Genomics Bioinforma

BIO 5510 Virology

BIO 5530 Medical Microbiology

BIO 5550 Microbial Biotechnology

BIO 5600 Adv Physiology/Pathophysio I

BIO 5602 Adv Physiology/Pathophysio II

BIO 5610 Advance Topics Cell Physiology

BIO 5620 Advanced Human Physiology

BIO 5622 Endocrinology

BIO 5660 Integrative Pharmacology

BIO 5900 Selected Topics in Biology

BIO 5920 Directed Readings in Biology

BIO 5940 Pre-Medical Study Abroad

BIO 5995 Graduate Project Research

BIO 6012 Ethics in Science

BIO 6210 Biological Communication I

BIO 6212 Biological Communication II

BIO 6902 Special Topics/Communication

BIO 6995 Graduate Research

BIO 6998 Thesis Seminar

BIO 7010 Biological and Biomedical Sci

BIO 7999 Doctoral Research

Chemistry Department

Chemistry

The Department of Chemistry offers a full curriculum in Chemistry, Biochemistry, and Environmental Science, with an emphasis on advancing chemical education and research. Research participation at the undergraduate, graduate, and postdoctoral level is a distinctive part of the Department's activity.

The department is housed in the Mathematics and Science Center (MSC) with advanced research and teaching laboratory facilities equipped with modern instrumentation.

Programs

Chemistry

Biomedical Sciences: Health and Environmental Chemistry

Courses

CHM 5100 Environmental Chemistry
CHM 5210 Advanced Analytical Chemistry
CHM 5230 Chemical Separations
CHM 5254 Biochemistry I
CHM 5340 Advanced Organic Chemistry
CHM 5390 Applied Organic Spectroscopy
CHM 5400 Symmetry In Chemistry
CHM 5410 Advanced Physical Chemistry
CHM 5420 Topics in Physical Chemistry
CHM 5440 Computational Chemistry
CHM 5530 Advanced Biochemistry
CHM 5550 Signal Transduction
CHM 5630 Advanced Inorganic Chemistry
CHM 5650 Bioinorganic Chemistry
CHM 5730 Fundamentals of Materials Chem
CHM 5810 Biochemical Toxicology
CHM 5900 Topics in Analytical Chemistry
CHM 5901 Topics in Organic Chemistry
CHM 5902 Topics in Biochemistry
CHM 5903 Topics in Inorganic Chemistry
CHM 5920 Directed Readings in Chemistry
CHM 6850 Health/Environmental Chemistry
CHM 6994 Grad Research for Non-Thesis
CHM 6995 Graduate Research
CHM 6996 Graduate Projects
CHM 9999 Doctoral Research Chemistry
ENV 5520 GIS Analys for Sustainability
ENV 5650 Organic Geochemistry
ENV 5800 Biogeochemical Cycling
ENV 5850 Environmental Fate & Transport
ENV 5860 Toxic Substance Control
ENV 5870 Natural Resource Management
ENV 5900 Topics in Environmental Scienc

Clinical and Diagnostic Sci Department

Clinical and Diagnostic Sciences

Built upon the foundations of biology and chemistry, Clinical and Diagnostic Sciences provides an experiential human-based education in biomedical, imaging and clinical sciences. Using clinical perspectives to develop critical thinking, teamwork and communication skills, you will be prepared for a variety of health careers or advanced graduate education such as M.D., D.O., PA, Pharm.D., DDS, DVM, etc. We offer programs at the bachelor's and master's level, as well as certificates.

Programs

Pathology Sciences

Physician Assistant Science

Clinical and Diagnostic Science

**Medical Laboratory Science, B.S./Clinical and Diagnostic Sciences,
M.S., Combined B.S./M.S.**

Courses

CDS 5000 Medical Genetics
CDS 5010 Human Pathology
CDS 5020 Molecular Diagnostics
CDS 5030 Histopathology
CDS 5050 Pharmacology
CDS 5200 Literature Review
CDS 5240 Immunohematology
CDS 5350 Parasitology Mycology Virology
CDS 5400 Clinical Correlations
CDS 5420 Principles Molecular Medicine
CDS 5500 Foundations in Clinical Labora
CDS 5600 Molecular Mech Bacterial Patho
CDS 5700 Medical Endocrinology
CDS 5800 Laboratory Management
CDS 5900 Special Topics
CDS 5929 Directed Readings
CDS 5995 Directed Research
CDS 5996 Independent Study
CDS 6000 CDS Capstone
CDS 6300 Molecular & Cellular Pathology
CDS 6450 Prof Dev and Comm
PAS 5010 Anatomical Science
PAS 5020 Foundation in Medical Sci
PAS 5030 Medical Interview & Document
PAS 5040 Psychosocial Factors in Med
PAS 5050 Public Health Science
PAS 5060 PA Professional Practice
PAS 5110 Clinical Med Sci and Reason I
PAS 5120 Pharmacology I
PAS 5130 Patient Assess Lifespan I
PAS 5140 Diagnostic Sciences I
PAS 5150 Ethics and Evidence Based Med
PAS 5210 Clinical Med Sci and Reason II
PAS 5220 Pharmacology II
PAS 5230 Patient Assess Lifespan II
PAS 5240 Diagnostic Sciences II
PAS 5250 Trends in Medicine & Wellness
PAS 5310 Clin Med Reasoning and Sci III
PAS 5320 Pharmacology III
PAS 5330 Patient Assess Lifespan III
PAS 5340 Diagnostic Sciences III
PAS 5350 Clin Transition & Adv Document
PAS 5360 Infectious Disease Principles
PAS 6100 Family Med Clinical Practicum
PAS 6200 ER Medicine Clinical Practicum
PAS 6300 Internal Med Clinical Practicu
PAS 6400 Surgery Clinical Practicum
PAS 6500 Pediatrics Clinical Practicum
PAS 6600 Women's Health Clinical Practi
PAS 6700 Behavioral Med Clin Practicum
PAS 6810 Clinical Elective I
PAS 6820 Clinical Elective II
PAS 6830 Clinical Elective III

PAS 6900 PA Science Capstone I
PAS 6910 PA Science Capstone II
PAS 6920 PA Science Capstone III

College of Arts and Sciences Department

College of Arts and Sciences

Communication, Journalism & PR Department

Communication, Journalism and Public Relations

Prepare for a world of opportunities in OU's Department of Communication, Journalism and Public Relations. Develop the knowledge, scholarship, skills, and critical thinking necessary for success as leaders, academics, creators, community members and global citizens in the 21st century. Members of our faculty are passionate about cultivating your desire to make a difference in the world. And they take the time to know you by name.

Programs

Communication for Organizations

Communication

Communication

Courses

COM 5002 COM Studies Scholarship

COM 5100 Qualitative Methods in Com

COM 5101 Quantitative Methods in Com

COM 5204 Political Communication

COM 5410 Advanced Interpersonal Com

COM 5411 Family Communication

COM 5412 Nonverbal Communication

COM 5413 Com and Leadership

COM 5414 Health Com and Close Rel

COM 5415 Sexuality and Com

COM 5730 Theorizing Media

COM 5900 Special Topics in COM

COM 5950 Internship

COM 5970 Independent Study

COM 6210 Culture and Communication

COM 6211 Culture/Power/Representation

COM 6212 Com and Cultural Citizenship

COM 6350 Feminist Rhetorical Theory

COM 6450 Interpersonal Com Theory

COM 6460 Organizational Com Theory

COM 6610 Global Media Studies

COM 6620 Video Games and Identity

COM 6621 Gender, Sexuality

COM 6625 Audience Rsrh in Media Studies

COM 6900 Spec Topics/Culture and Comm

COM 6994 Comprehensive Exam

COM 6996 Creative Project

COM 6998 Thesis

Computer Science & Engineering Department

Computer Science and Engineering

Our Mission:

The Department of Computer Science and Engineering is dedicated to empowering individuals to acquire cutting-edge computing skills through hands-on education and innovative research. Our goal is to address real-world challenges in Michigan and beyond.

Our Vision:

We aspire to be the premier destination for those in Michigan and beyond who seek to harness computing for the betterment of their communities.

Programs

Foundations of Computer Science

Machine Learning

Machine Vision and Robotics
Smart Manufacturing and Industry 4.0
Artificial Intelligence for IT Operations
Augmented and Virtual Reality,
Edge AI and IoT
Embedded Artificial Intelligence
Ethics of Artificial Intelligence
Computer Science
Information Technology/Computer Science
Artificial Intelligence
Cybersecurity
Information Technology/Cybersecurity
Software Engineering and Information Technology
Information Technology/Software Engineering and Information
Technology
Embedded Systems
Computer Science and Informatics
Computer Science
Computer Science/Cybersecurity
Computer Science/Software Engineering and Information
Technology

Courses

CSE 570 Real Time Microprc Sftw & Sys
CSI 5005P Object Oriented Computing
CSI 5008 Computer Hardware Design
CSI 5100 Ethics & Bias in AI
CSI 5110 Foundations of Edge AI
CSI 5130 Artificial Intelligence
CSI 5140 Deep Learning and Applications
CSI 5150 AI for IT Operations
CSI 5160 Integrated Computing Systems
CSI 5170 Machine Learning
CSI 5180 Natural Language Processing
CSI 5200 Fundamentals/Software Modeling
CSI 5220 Object Oriented Analy & Design
CSI 5230 Android Application Developmen
CSI 5240 Cloud Computing
CSI 5300 Software Prototypg/Validation
CSI 5350 Programng Languages Compilers
CSI 5360 Concurrent/Multi-Core Prgmng
CSI 5370 Software Verification/Testing
CSI 5380 Software Verification/Testing
CSI 5390 Software Engineering
CSI 5410 Software Proj Plan/Mgmt/Maint
CSI 5420 Rapid Proto & Compont Software
CSI 5430 IT Project Management
CSI 5450 Database Systems I
CSI 5460 Information Security
CSI 5470 Computer Networks
CSI 5480 Information Security Practice
CSI 5490 Wireless & Industrial Networks
CSI 5500 Operating Systems I
CSI 5510 Adv Web Design & Application
CSI 5550 Visual Computing
CSI 5580 AI for Cybersecurity & Privacy
CSI 5600 Network Security
CSI 5610 Adv Data Structures/Algorithms

CSI 5640 Computer Architecture
CSI 5700 Software Security
CSI 5710 Computer Hardware Design
CSI 5730 Non-crypto methods for S & P
CSI 5740 Cyber Laws & Digital Forensics
CSI 5760 Embedded Syst Dsgn Using FPGAs
CSI 5780 Bioinformatics
CSI 5800 AI-Human Interaction
CSI 5810 Info Retrieval/Knowldg Discov
CSI 5830 E-Commerce and ERP
CSI 5900 Special Topics
CSI 5950 Professional Practice
CSI 5970 Independent Study
CSI 6450 Database Systems II
CSI 6500 Operating Systems II
CSI 6550 Advanced Visual Computing
CSI 6640 Parallel Computer Architecture
CSI 6996 Graduate CSE Project
CSI 6998 Master's Thesis Research
CSI 7900 Special Topics
CSI 7940 Research Seminar in CS
CSI 7970 Independent Study
CSI 7995 Research Methodology in CS
CSI 8999 Doctoral Dissertation Research

Counseling Department

Counseling

The Department of Counseling within Oakland University's School of Education and Human Services offers master's and doctoral degree programs that are CACREP accredited and offer excellent training.

Ethical Standards and Counselor Fitness:

Oakland University's CACREP accreditation obligates the program to comply with and to ensure that its students comply with the American Counseling Association's 2014 Code of Ethics. The Code holds counselors and counseling students accountable for their competence and acknowledges times when "physical, mental, or emotional problems are likely to harm a client or others ..." (Section F.5.b). It requires that "Counselor educators, throughout ongoing evaluation and appraisal, are aware of and address the inability of some students to achieve counseling competencies" and requires faculty to "assist students and supervises in securing remedial assistance when needed, seek professional consultation and document their decision to dismiss or refer students for assistance ..." (Section F.9.b).

Applicants to Oakland's counseling program are assessed for interpersonal competence in the admission process, and those rated unacceptable on academic or personal fitness for counseling will not be admitted. Students are assessed for fitness throughout their coursework, including practical experience courses in which performance is an essential part of the grade. A student whose ethical behavior or psychological health is questionable will be reviewed according to published departmental policies and may be referred for external evaluation. Such evaluation may lead to a remediation plan or dismissal from the program.

Programs

Play Therapy

Counseling

Clinical Mental Health Counseling

Education: Counseling

Courses

CNS 5050 Intro to Counseling and Ethics
 CNS 5060 Diversity/Social Justice Issue
 CNS 5070 Clinical Counseling Skills
 CNS 5080 Theories/CNS/Psychotherapy
 CNS 5090 Individual/Family Development
 CNS 6000 Research in Counseling
 CNS 6010 Testing/Assessment in CNS
 CNS 6020 Career Develop Theory/Practice
 CNS 6030 Group Counseling
 CNS 6035 Adv Child & Adol Play Therapy
 CNS 6065 Family and Couple Counseling
 CNS 6070 Counseling for Wellness
 CNS 6075 Reaction to Significant Loss
 CNS 6080 Human Sexuality
 CNS 6082 Advanced Human Sexuality
 CNS 6083 LGBTQ+ Issues in CNS
 CNS 6085 Counsel/Advising College Stude
 CNS 6090 Phil/Meta-theoretical Issues
 CNS 6095 College Student Dev on Campus
 CNS 6100 Intro School CNS/Consultation
 CNS 6101 Sp. Topics /School Counseling
 CNS 6150 Intro School CNS/Consultation
 CNS 6200 Advanced School Counseling
 CNS 6201 Sp. Topics in Adv. School Coun
 CNS 6250 Advanced School Counseling
 CNS 6400 Diagnosis/Case Conceptualiz'n
 CNS 6500 Mental Health Counseling
 CNS 6600 Addictions in Counseling
 CNS 6900 Spec Problems in Counseling
 CNS 6940 Workshop in Cnsel & Guid
 CNS 6950 Internship in Counseling
 CNS 6960 Counseling Practicum

CNS 7010 Conceptual Models Addiction
 CNS 7015 Counselg Chem Dependent
 CNS 7030 Couns Infancy and EC
 CNS 7035 Couns Older Child/Adolescent
 CNS 7040 Adv Child and Adolesc Play Tx
 CNS 7050 Advance Appraisal: Model/Meths
 CNS 7055 Intelligence Personal Assess
 CNS 7060 Psychopathology
 CNS 7070 Advanced Couple/Family
 CNS 7075 Couple/Family Method/Technique
 CNS 7080 Advan Couple/Family Devl
 CNS 7085 Couple/Family Assessment
 CNS 7095 Advanced Methods: C&F
 CNS 7130 Advanced Career Counseling
 CNS 7931 Fieldwork in Child & Adol Ther
 CNS 7940 Sem & Pract in Addictions CNS
 CNS 7941 Topical Seminar
 CNS 7942 Sem: Couple/Family CNS
 CNS 8100 Doctoral Prof Seminar I
 CNS 8110 Doctoral Prof Seminar II
 CNS 8120 Advanced Theories of CNS
 CNS 8130 Adv Group Counseling
 CNS 8140 Sociocultural/Legal/Ethical
 CNS 8150 Applied Research
 CNS 8180 InstructionTheory/Methods CNS
 CNS 8190 Research Methodology
 CNS 8200 Analytical Methods
 CNS 8895 CNS Inquiry: Proposal Plan/Dev
 CNS 8896 Dissertation Research I
 CNS 8897 Dissertation Research II
 CNS 8940 Seminar in Couns Supervision
 CNS 8941 Doctoral Professional Sem I

CNS 8942 Doctoral Professional Sem II
CNS 8950 Doctoral Internship
CNS 8960 Doctoral Internship II
CNS 8970 Indep. Study in Counseling
CNS 8971 Doctoral Internship I
CNS 8972 Doctoral Internship II
CNS 8999 Dissertation Research III

Dance Department

Dance

The Department of Dance combines an exceptional dance curriculum with talented, professional faculty to provide students with an outstanding educational opportunity. Grounded in a contemporary dance aesthetic informed by traditional/classical modern dance principles, our unique department produces top-notch performers and choreographers. There are two distinct professional dance companies in partnership with Oakland University, Eisenhower Dance Detroit and Take Root. The Oakland University Department of Dance is accredited by the **National Association of Schools of Dance (NASD.)**

Decision & Info Sciences Department

Decision & Information Sciences

Renowned faculty researchers bring innovative business concepts and real-world applications to life in Oakland University's Management Information Systems programs. Collaboration with industry combined with integrating today's business challenges into the curriculum means OU students graduate with the skills and knowledge required to address vital business and technology issues.

The department is home to Oakland University's Center for Data Science and Big Data Analytics, a collaborative, cross-disciplinary research center that merges the expertise of Biomedical Science, Mathematics, Engineering, Business and Finance to develop innovative solutions to high-impact problems.

Programs

Supply Chain Analytics
Business Analytics
Data Science
Information Technology Management
Management Information Systems/Information Technology
Management
Business Analytics
Business Analytics
Management Information Systems

Courses

ISL 6040 Strat Positng/IT & Vision/Ldrs
ISL 6060 IS Strategy and Info Economics
ISL 6180 IS Strategy/Future of Work
ISL 6200 IS Strat/Enterprise Architect
ISL 6250 IT Governance
ISL 6300 Global Sourcing Strategies/IT
ISL 6320 Data Mining
ISL 6380 IS Security Fundamentals
ISL 6400 IS Security/Management/Cases
ISL 6410 Privacy and IT
ISL 6430 Intellectual Property and IT
ISL 6900 Special Topics in ISL
ISL 6970 Independent Study
MIS 5040 Intro Database/Data Warehouse
MIS 5050 Systems Analysis and Design
MIS 5060 Managing Info Sys Projects
MIS 5170 Practical Cyber Security Funda
MIS 5180 IS Risk Analys & Sec Cont Dev
MIS 5240 Enterprise Information Systems

MIS 5460 Business Analytics
MIS 5470 Prac. Comp for Data Analytics
MIS 5480 Adv Analytics with Python
MIS 5500 Web Analytics
MIS 5560 Intro to Data Science
MIS 5600 Deep Learning/Text Analytics
MIS 5630 Intro to Networks
MIS 5640 Network and Security Mgmt
MIS 5700 IS Security
MIS 5750 Mobile Sec & Secure App Dev
MIS 5800 Information Security Project
MIS 5810 Digital Forensic Analysis
MIS 5860 Adv App of Analyt Cyber Sec
MIS 6060 Adv Databases/Big Data Mgt
MIS 6120 Info Security Legal Comp Ethic
MIS 6200 Electronic Commerce
MIS 6220 Business Object Development
MIS 6250 IT Planning and Strategy
MIS 6300 Manag Gbl Srcg IT & IT En Svc

MIS 6410 IS Privacy
MIS 6420 IS Issues in Supply Chain Mgt.
MIS 6430 Intell Property/Public Domain
MIS 6480 Issues: International IT
MIS 6900 Special Topics in MIS
MIS 6940 Project Seminar
MIS 6970 Independent Study: MIS
POM 5210 Operations Management
POM 5410 Operations Analytics
POM 6350 Management/Service Operations
POM 6400 Process Management
POM 6420 Supply Chain Management
POM 6430 Operations Planning & Control
POM 6450 Cases In Operations Mgt
POM 6480 Project Management
POM 6900 Special Topics: POM
POM 6970 Independent Study: POM
QMM 5100 Quantitative Methods for Mgrs
QMM 5520 Forecasting
QMM 6400 Management Science
QMM 6900 ST: Quantitative User Experien
QMM 6970 Independent Study/Quant Method

Economics Department

Economics

Economics provides a primary foundation for decisions at the national, industry, business and consumer levels. Economists analyze how businesses and households make decisions, how free markets work, and how a national economy functions and prospers. Based on theory and empirical evidence, economics prescribes solutions to societal problems such as unemployment, inflation, productivity, pollution, education, housing and crime. Economics students learn to think critically and develop models to understand the consequences of decision-making.

Programs

Business Economics

Courses

ECN 5010 Introduction to Economics
ECN 5050 Econometrics
ECN 5180 Seminar in Economic Policy
ECN 5210 Economics for Managers
ECN 5300 Macroeconomic Policy/Global En
ECN 5500 Risk Management
ECN 5560 Public Finance
ECN 5670 Economics of Health Care
ECN 6730 International Trade & Finance
ECN 6850 Economics of Industries
ECN 6900 Special Topics in Economics
ECN 6970 Independent Study/Economics

Electrcl & Comptr Engineering Department

Electrical and Computer Engineering

At Oakland University's Department of Electrical and Computer Engineering (ECE), we are dedicated to providing a transformative educational experience. Our faculty, who are teacher-scholars and experts in their fields, are actively engaged in cutting-edge research and committed to mentoring students in their academic and professional journeys.

Programs

Artificial Intelligence for Cyber Security and Trustworthy AI
Mechatronics and Robotics Fundamentals
Automotive Mechatronics

Autonomous Vehicle Systems
Automotive Electrification
Robotic Systems

Human-Robot Interactions
Systems and Controls
Systems Dynamics
Electrical and Computer Engineering
Mechatronics and Robotics Engineering/Electrical and Computer Engineering
Mechatronics and Robotics Engineering
Mechatronics and Robotics Engineering
Mechatronics and Robotics Engineering/Embedded Systems
Electrical and Computer Engineering
Computer Engineering/Electrical and Computer Engineering
Electrical Engineering/Electrical and Computer Engineering
Computer Engineering/Mechatronics and Robotics Engineering
Electrical Engineering/Mechatronics and Robotics Engineering
Computer Engineering/Embedded Systems
Electrical Engineering/Embedded Systems

Courses

ECE 5000 Foundations/Elect & Comp Eng
ECE 5130 Microelectronic Matls and Devi
ECE 5132 VLSIC Design of Digital Chips
ECE 5134 Fundamentals of MEMS
ECE 5135 Microelec Fabrication Tech
ECE 5137 High-Frequency Electronics
ECE 5140 Instrumentation & Measurements
ECE 5206 Random Signals & Processes
ECE 5210 Principles of Digital Comm
ECE 5220 Digital Signal Processing
ECE 5230 Satellite-Based Position Sys
ECE 5300 Electromagnetic Engineering
ECE 5310 Antennas
ECE 5320 Electromagnetic Compatibility
ECE 5404 Linear Systems and Control
ECE 5415 Microcomp-Based Control Sys
ECE 5500 Robotic Systems and Control
ECE 5510 Machine Vision
ECE 5520 Automotive Mechatronics I
ECE 5532 Autonomous Vehicle Systems I
ECE 5551 Human Robot Interaction
ECE 5600 Design of AC Machines
ECE 5605 Intro to Electrical Power Sys
ECE 5610 Energy Conservation Systems
ECE 5620 Electrical Energy Systems
ECE 5625 Microgrid Design and Operation
ECE 5630 Electric/Hybrid Drive Systems
ECE 5640 Battery Management Systems
ECE 5710 Computer Hardware Design
ECE 5720 Microproc-Based Sys Design
ECE 5721 Embedded Systems Design
ECE 5731 Fund of Embedded Sys Design
ECE 5732 Mixed Signal Embedded System
ECE 5734 Embed Sys Verif & Validation
ECE 5736 Reconfigurable Computing
ECE 5738 Micro- & Nano-Embedded Systems
ECE 5740 Embedded AI
ECE 5750 Computer Networks
ECE 5760 Embedded Sys Design w/FPGAs
ECE 5761 Safety Critical Embedded Sys

ECE 5770 GPU Accelerated Computing
ECE 5772 High Performance Embed Prog
ECE 5780 Embedded Security
ECE 5810 Quantum Computer Design
ECE 5900 Special Topics
ECE 5970 Independent Study
ECE 6132 Adv VLSIC Analog/Digit Sys Des
ECE 6136 Appl of Analog Integ Circuits
ECE 6138 Field-Effect Devices
ECE 6200 Multi-dimensional Signal Theor
ECE 6201 Signal Detection & Est Theory
ECE 6202 Statistical Commun Sys Theory
ECE 6212 Wireless Communications
ECE 6214 Modulation and Coding
ECE 6240 Digital Image Processing
ECE 6242 Advcd Digital Signal Process
ECE 6400 Estimation and Control Theory
ECE 6410 Intelligent Control Systems
ECE 6412 Digital Control Systems
ECE 6430 Analysis Nonlinear Control Sys
ECE 6440 Adaptive Control Systems
ECE 6450 Model Predictive Control
ECE 6452 Optimal Control
ECE 6460 Autonomous Vehicle Systems II
ECE 6462 Dyn Control Robot Manipulators
ECE 6520 Automotive Mechatronics II
ECE 6712 Parallel Embed Comp Architec
ECE 6740 Adv Embedded Sys Design
ECE 6742 DSP in Embedded Systems
ECE 6745 Real-Time Computing Systems
ECE 6760 Safety Crit Embedded Systems
ECE 6996 Graduate Engineering Project
ECE 6998 Master's Thesis Research
ECE 7300 Coherent Optics
ECE 7402 Large Scale Dynamic Systems
ECE 7404 Theory of Networks
ECE 7900 Special Topics
ECE 7970 Independent Study
ECE 8999 Doctoral Dissertation Research

Engineering Department

Engineering

The Mission of the School of Engineering and Computer Science is Threefold:

- To provide high-quality undergraduate and graduate programs of instruction in Engineering and Computer Science to prepare graduates for careers in the coming decades,
- To advance knowledge through basic and applied research in relevant branches of engineering and computer science, and
- To provide service to both the engineering profession and public of the State of Michigan.

In carrying out its mission the school will address the needs of the automotive and related industries in southeast Michigan for the:

- Education of engineers and computer scientists,
- Development of research programs and
- Fulfillment of the demands for professional service.

Situated near a hub of automotive manufacturing companies in southeastern Michigan, SECS boasts a strong focus on applied research. Our faculty's research interests encompass a wide range of areas, with an emphasis on product design, development and manufacturing. This work supports both large corporations and small businesses, driving innovation and efficiency in the industry.

Courses

EGR 5940 Engineering Seminar

EGR 8999 Doctoral Dissertation Research

English as a Second Language Department

English as a Second Language

At the Oakland University English as a Second Language (ESL) Institute, we value your hard work. And we strive to help you to overcome obstacles, so you can continue to pursue greatness. With ESL at Oakland University, you'll become an expert in English. We offer a safe, academic space with excellent instruction for you to improve your reading, writing, speaking, and listening skills. And you can do it on your time, with flexible schedules and course options.

Courses

ESL 5590 English Instr Purposes

ESL 5592 Rsrch Paper Thes Wri Grad Stud

English, Creative Wrtg, & Film Department

English, Creative Writing, and Film

The Department of English, Creative Writing, and Film offers multiple majors in a community atmosphere dedicated to learning and creating. Our award-winning faculty provide engaged interactions that foster critical thinking, conversation, and inquiry, while strengthening your research and problem-solving skills and honing your creative and communicative abilities.

Programs

English

English

English Language Arts for Educators/Teaching in Secondary

Education

Courses

ENG 5150 Summer Workshop

ENG 5200 Methods/Contexts Lit Analysis

ENG 5300 Essays, Genres, and Publics

ENG 5330 Critical Theory/Practice

ENG 5400 Literature and Social Engageme

ENG 5612 Postcolonial Literature

ENG 5710 Literature and the Environment

ENG 5810 Lit History: British Medieval

ENG 5811 Lit Hist: Ren/Early Mod Brit

ENG 5812 Lit Hist:Restor & 18th C Brit

ENG 5813 Lit Hist:British Romanticism

ENG 5814 Lit. History: Victorian

ENG 5816 Lit History: Postcolonial

ENG 5820 Lit Hist: Early American Lit

ENG 5821 Lit Hist:American 19th Century

ENG 5822 Lit Hist:American 20th Century

ENG 5823 Lit Hist:American Post WWII

ENG 5900 Topics Literature/Language

ENG 5904 Literary Kinds: Fiction

ENG 5905 Literary Kinds: Drama

ENG 5906 Literary Kinds: Poetry

ENG 5907 Modes or Special Forms

ENG 6900 Studies in Language/Literature
ENG 6910 Seminar: Studies/ Lit. Theory
ENG 6944 Seminar: 18th Century Lit
ENG 6948 Literary Theory
ENG 6996 The Master's Project

History Department

History

The Department of History faculty guide students toward professional careers and provide opportunities to support academic preparation with field experience in the community. Oakland University's teacher preparation program offers a History Concentration in the Secondary Teaching Major and draws on history in the Social Studies Concentration of the Elementary Teaching Major.

Careers in college teaching and other forms of professional historical scholarship require post-graduate training. The History Department's Master of Arts program may serve either as a terminal degree or as a bridge to more advanced study. Like the undergraduate program, it is designed to accommodate both full- and part-time students. In addition to a full daytime schedule, late afternoon and evening courses are available.

Programs

History

Social Studies with History for Educators/Teaching in Secondary Education

Courses

HST 5110 Hist North American Colonies
HST 5120 The American Revolution
HST 5125 US Early National Period
HST 5130 Jacksonian American
HST 5140 History of the American South
HST 5145 Civil War/Reconstruction
HST 5204 American History 1928-1945
HST 5206 Cold War America 1945-1990
HST 5210 Amer Foreign Relation-20th Cen
HST 5220 American Industria Econ/Society
HST 5225 History American Mass Media
HST 5230 American Labor History
HST 5235 Working Detroit
HST 5250 Oral History
HST 5270 History of American Cities
HST 5275 History of American Families
HST 5285 History African American Women
HST 5288 Topics in African-American Hst
HST 5320 The Middle Ages, 300-1100
HST 5335 England, 1066-1485
HST 5340 The Italian Renaissance
HST 5365 Women in Early Modern Europe
HST 5370 Europe In The 17th Century
HST 5390 Early Modern France
HST 5400 Europe Since 1914
HST 5405 Nationalism in Modern Europe
HST 5410 EuroThought French Rev-Present
HST 5420 Ireland, 1691 to the Present
HST 5430 Britain 1815-1911
HST 5435 Britain 1911 to the Present
HST 5450 Modn Italy:Unificatn/20th Cent
HST 5480 Germany Since 1740
HST 5485 Nazi Germany: Soc/Pol/Culture
HST 5490 History of Modern Russia
HST 5495 Eastern European History

HST 5520 Cold War in Middle East
HST 5540 Arab-Israeli Conflict
HST 5660 Hist of Argentina/Brazil/Chile
HST 5675 Slavery/Race in Latin America
HST 5710 Ancient African Civilizations
HST 5720 Modern African Hst Since 1800
HST 5810 China Lst Dynst:Qing/1644-1911
HST 5815 China in Revolution 1911-1949
HST 5820 China since 1949
HST 5825 China and Inner Asia
HST 5870 Origins of Modern Japan
HST 5875 Twentieth-Century Japan
HST 5900 Selected Topics in History
HST 5920 Directed Readings I
HST 5921 Directed Readings II
HST 5940 Seminar/World Transnat'l Hst
HST 5980 Historical Research Seminar I
HST 5981 Historical Research Seminar II
HST 6941 Colloquium I
HST 6942 Colloquium II
HST 6945 Graduate Research Seminar I
HST 6946 Graduate Research Seminar II
HST 6995 Research Tutorial I
HST 6996 Research Tutorial II
HST 6997 Master Thesis
HST 6998 Field or Thesis Examination
HST 6999 Master Project

Human Development/Child Studies Department

Human Development and Child Studies

The Department of Human Development and Child Studies offers programs leading to a Doctor of Philosophy in Education with a major in Early Childhood Education, an Education Specialist degree in Early Education and Intervention, Master of Education (M.Ed.) degrees in Early Childhood Education and in Special Education, graduate certificates, and teaching endorsements. The M.Ed. in early childhood education includes the Early Childhood Endorsement for those who are certified, elementary teachers. The M.Ed. in Special Education includes a concentration in Specific Learning Disability (SLD), Emotional Impairment (EI), or Autism Spectrum Disorder (ASD) that meets the requirements for the state approved teaching endorsement in the selected area. The concentration in Applied Behavior Analysis meets the standards of the Behavior Analysts Certification Board (BACB). Graduate certificate programs that meet state requirements for the ASD, EI and SLD endorsements are also available. Graduate certificates in ABA meet course requirements or course and practicum hours requirements for the Board Certified Behavior Analyst (BCBA) credential.

Programs

Special Education K12

Autism for Multiple Disciplines

Autism Spectrum Disorder-Advanced

Autism Spectrum Disorder-Basic

Emotional Impairment: Advanced

Emotional Impairment: Basic

Specific Learning Disability: Basic

Specific Learning Disability: Advanced

Early Childhood Education

Education: Early Childhood Education

Courses

EC 6600 Theories Child Devel/Education

EC 6601 Fam/Chld/Lrng Cultural Context

EC 6602 Applied Development Principles

EC 6603 Play and Mediation of Learning

EC 6604 Observe/Assess Yng Excep Child

EC 6605 Teacher as Child Advocate

EC 6651 Tchng Science/Young Children

EC 6652 Intro to Early Childhood Spec

EC 6653 ECSE-Program/Plan/Intervention

EC 6654 Fmly/Preschl Ed Setting

EC 6655 Admin/Directn EC Programs

EC 6656 Play Dev Hospitalized Child

EC 6657 Gifted/Talented Young Children

EC 6900 Special Problems in Ed: EC

EC 6960 Practicum in Early Childhood

EC 6995 Research Proj: EC Phase 1

EC 6996 Research Project EC: Phase II

EC 9010 Research Methodology

EC 9020 Analytical Methods

EC 9931 Field-Based Project I

EC 9932 Field-Based Project II

EC 9940 Doctoral Prof Seminar I

EC 9941 Doctoral Prof Seminar II

EC 9944 Paradigms Early Curric

EC 9945 Curriculum Investigation

EC 9946 Early Dev Lrng Theories

EC 9947 Ecology of Early Learning

EC 9948 Policy Studies Early Education

EC 9971 Ind Study: Early Childhood Ed

EC 9998 Comp Exm/Dissertation Propsl

EC 9999 Diss Implement Anlys/Writing

EEI 7700 Ecol Foundations/Early Interv

EEI 7701 Child Development I

EEI 7702 Child Development II

EEI 7703 Collab/Consult/Early Interv'n

EEI 7704 Law/Pol/Pract/Educ Yng Chldrn

EEI 7705 Interven/Inclusion Practices I

EEI 7706 Interven/Inclusion Practice II

EEI 7707 Applied Rsrch/Ldrshp/Early Int

FE 5300 Major Theorists Ed

FE 5301 Applied Devl Prin: Mdl Chld

FE 5302 SP: Prof Issues/Practice

FE 5303 Ecology of the Classroom

FE 5304 Research/Evaluation Methods

FE 5305 Wkshp in Prof Prob and Pract

FE 5306 History in Education

FE 5307 Philosophy in Education

FE 5308 Cross-Cultural Studies in Ed

FE 5309 Sociology in Education

FE 5310 Politics in Education

FE 5311 Psychology in Education

FE 5312 Philosophy for Children

FE 5313 Issues in Social Foundations

FE 5314 Change Models in Education

FE 5400 Learning Models

FE 5996 Development/Variability/Learng

FE 6970 Ind Stdy: Educatnl Foundation

FE 6996 Terminal Project

SE 5500 The Exceptional Student

SE 5501 Intro Student w/Special Needs

SE 5589 Special Education and SLA

SE 6502 Legal Issues in Spec Educ

SE 6503 Stands/Practs/Research in SE

SE 6505 Community Engagement/Service

SE 6510 Students w/Behavior and/or EI
SE 6517 Lang and Except Child & Youth
SE 6518 Org Mgt of Instruct Behav/Env
SE 6520 Ed Procedures for Students/EI
SE 6521 Srvng Stdnts w/Spec Needs
SE 6521P Serving Students w/ Spec Needs
SE 6524 Assessment in Special Educatn
SE 6526 Assessments Across Lifespan
SE 6527 ASD: Educational Procedures
SE 6532 Intro/Specific Learning Disab
SE 6533 Adv Ed Proc/Students with SLD
SE 6549 Dev of Young Exceptional Child
SE 6550 Intro Autism Spect Disord
SE 6551 Autism Spec Dis: Commun & Lang
SE 6552 Behavioral Issues Autism Spec
SE 6554 Collaboration & Consultation
SE 6559 Overview of ASD
SE 6569 Foundations of ABA
SE 6570 Concepts and Principles of ABA
SE 6571 Behavioral Assessment
SE 6572 Behavior Change Procedures
SE 6573 Research Methods
SE 6574 Ethics
SE 6575 Personnel Sup and Mgmt
SE 6576 Experimental Analysis Behavior
SE 6578 ASD: Commun/Language Issues
SE 6579 ASD: Behavioral/Social Issues
SE 6596 Collaboration/Consultation:ASD
SE 6600 Quality of Life
SE 6601 Issues/Trends in Spec Ed
SE 6616 Consultation Skls Spec Eductr
SE 6619 Theory/Research/Pract/Spec Ed
SE 6620 Adv Intervention Resources/EI
SE 6624 Advanced Diagnostics
SE 6640 Lives of Adolescent/Adult/ASD
SE 6641 Counseling Issues/Spec Needs
SE 6643 Human Motivation/Organizations
SE 6644 Employ Residential Living: ASD
SE 6699 Final Project in Spec Ed
SE 6900 Selected Topics: Special Ed
SE 6960 Practicum: ASD K-12
SE 6961 Prac: Specif Lrning Disab K-12
SE 6962 Practicum: EI (K-12)
SE 6963 ABA Fieldwork 1
SE 6964 ABA Fieldwork 2
SE 6965 ABA Fieldwork 3
SE 6966 ABA Fieldwork 4
SE 6967 ABA Fieldwork 5
SE 6970 Independent Study
SE 6975 Exp Learning Project 1
SE 6976 Exp Learning Project 2
SE 6977 Exp Learning Project 3
SE 6978 Exp Learning Project 4
SE 9970 Ind Stdy: Special Ed
SE 9972 Special Ed EC Seminar

Human Movement Science Department

Human Movement Science

Emphasizing foundational knowledge in physics and biology, Human Movement Science explores the causes and consequences of human movement across the lifespan, including the prevention and treatment of acute and chronic conditions that cause disorders of movement. Our department offers programs at the bachelor's, master's, doctoral and post-professional levels.

Programs

Physical Therapy

Oncology Rehabilitation

Orthopedic Manual Physical Therapy

Teaching and Learning for Health Science Professionals

Exercise Science

Clinical Exercise Science

Corporate and Worksite Wellness

Exercise Science, Master of Science

Exercise Science

Human Movement Science

Courses

EXS 5000 Introduction To Research

EXS 5010 Advanced Exercise Physiology

EXS 5020 Advanced Biomechanics

EXS 5030 Diagnostic Test/Exs Prescript

EXS 5040 Nutrition/Weight Mgt/Exercise

EXS 5100 Intro to Personal Training

EXS 5110 Advanced Personal Training

EXS 5200 Physical Activity & Aging

EXS 5210 Children & Exercise

EXS 5300 Human Performance Enhancement

EXS 5310 Environment/Human Performance

EXS 5400 Obesity and Physical Activity

EXS 5440 Prev Nutrit Through Life Span

EXS 5500 Healthy Lifestyle Choices

EXS 5510 Stress Management

EXS 5520 Health-Promoting Choices

EXS 5600 Health And Disease

EXS 5620 Clinical Biomechanics

EXS 5630 Basic Athletic Training

EXS 5640 Exercise Electrocardiography

EXS 5650 Yoga Therapy

EXS 5700 Corporate/Worksite Wellness

EXS 5800 Exercise Endocrinology

EXS 5810 Physical Activity Epidemiology

EXS 5830 Muscle Physiology

EXS 6600 Admin Cardiac Rehab/Exs Prgm

EXS 6700 Laboratory Instrumentation

EXS 6920 Directed Study and Research

EXS 6940 Seminar In Exercise Science

EXS 6950 Exercise Science Internship I

EXS 6955 Exercise Science Internship II

EXS 6995 Research in Exercise Science

PT 6010P Clin Orthopedic Internship I

PT 6020P Clin Orthopedic Internship II

PT 6110P Applied Movement Sciences

PT 6511 Professional Issues I

PT 6517 Functional Anatomy

PT 6519 Clinical Medicine

PT 6615 Gross Human Anatomy for PT

PT 6740 Movement Science I

PT 6751 Clinical Exam & Evaluation I

PT 6756 Patient Management

PT 6816 Neuroanatomy for PT

PT 6881 Critical Inquiry I

PT 6980 Evidence-Informed Practice

PT 7140 Pharmacology/Physical Therapy

PT 7151 Clinical Ed Experience I

PT 7241 Clinical Neuroscience

PT 7271 Lifespan Development I

PT 7340 Psychosocial Asp/Patient Mgt

PT 7410 Clinical Neuro Exam and Eval

PT 7411 Educational Interventions PT

PT 7420 Neurological Exam and Eval

PT 7421 Neuromuscular Interventions I

PT 7510 Modalities

PT 7520 Fnds Therapeutic Exs Interfer

PT 7522 Clinical Exam & Evaluation II

PT 7532 Advanced Exercise Intervention

PT 7550 Cardiopulm Exam/Intervention

PT 7600 Prosthetics and Orthotics

PT 7611 Fnd Musculoskeletal Diagnosis

PT 7652 Clinical Ed Experience II

PT 7653 Clinical Education III

PT 7816 Clinical Anatomy/Neuroanatomy

PT 7850 Imaging for Physical Therapist

PT 7882 Critical Inquiry II

PT 8280 Pediatric Exam & Interventions

PT 8282 Lifespan Development II

PT 8300 Administration & Practice Mgt

PT 8322 Professional Issues II

PT 8350 Educational Theory & Practice

PT 8355 Health Promotion and Wellness

PT 8432 Neuromuscular Interventions II

PT 8510 Diff Diagnosis/Screening Ref'l

PT 8543 PT approaches to Med-Surg

PT 8550 Integ Exam/ Intervention

PT 8600 P & O Exam/ Intervention
PT 8610 Arthrology
PT 8622 Advanced Musculoskeletal
PT 8700 Capstone Exam in PT
PT 8800 Understanding Evidence-Based Prac
PT 8801 Clin Pharm Musculoskel Sys
PT 8802 Motor Cont/Motor Lrn Theory/Ap
PT 8803 Clinical Case Study
PT 8806 Methods Teach Learn Hlth Sci
PT 8807 Educ Princ/Rehab Profess
PT 8808 Professional Edu Health Sci
PT 8814 Foundations of Pediatric Pract
PT 8815 Devlp Aspect/Pediatric Rehab
PT 8816 Ped Musculo Exam/Intervention
PT 8822 Fnds Geriatric Neurol Pract
PT 8823 Assess of Neuro Dysfunction
PT 8824 Devel Interven/Neurolgic Dysfn
PT 8830 Essentials Comp Oncology Rehab
PT 8831 PT Mgt-Blood/Head/Neck/CNerv
PT 8832 Rehab Mgt/Upper Quarter Oncol
PT 8833 Rehab Mgt Lower Oncol Cond.
PT 8834 Rehab Pediatric Onc Condition
PT 8860 Advanced Orthopedics I
PT 8861 Advanced Orthopedics II
PT 8862 Advanced Orthopedics III
PT 8863 Advanced Orthopedics IV
PT 8870 Adv Diff Diagnosis/Screen Ref
PT 8871 Applied Movement Sciences
PT 8872 Craniomandibular System
PT 8875 Diagnostic Imaging
PT 8876 Advanced Arthrology
PT 8881 AO - Foundations in OMPT
PT 8882 AO - Lower Quarter
PT 8883 AO - Upper Quarter
PT 8884 AO - Spine
PT 8885 AO - Clinical Fellowship 1
PT 8886 AO – Clinical Fellowship 2
PT 8900 Spec Topics/Physical Therapy
PT 8925 Research Directed Study
PT 8953 Clinical Ed Experience III
PT 8954 Clinical Ed Experience IV
PT 8955 Clin Orthopedic Internship I
PT 8956 Clin Orthopedic Internship II
PT 8957 Clinical Orthopedic Intern III
PT 8959 Ped Clinical Internship I
PT 8960 DPT Research Practicum
PT 8961 Community Practicum
PT 8964 Teaching Practicum for Hlth Sc
PT 8966 OMPT Practicum
PT 8970 Independent Study
PT 8974 Clinical Education IV
PT 9000 Advanced Scientific Inquiry
PT 9010 Analysis of Clinical Findings
PT 9940 Professional Seminar
PT 9969 Doctoral Research Project
PT 9999 Dissertation Research

Industrial/Systems Engineering Department

Industrial and Systems Engineering

Industrial and Systems Engineers are often referred to as the "engineers for the 21st century!" This field focuses on optimizing systems and processes, making it uniquely versatile compared to other engineering disciplines. While traditional engineering fields may specialize in specific areas, industrial and systems engineering empowers you to work across a wide range of industries and applications.

The hallmark of ISE is its career and job flexibility. Whether you're involved in distributing products globally, designing cutting-edge automobiles or improving efficiency in an operating room, the core objective remains the same: enhancing efficiencies and reducing costs.

Programs

Productivity Improvement

Smart Manufacturing

Systems Engineering

Industrial and Systems Engineering

Engineering Management

Systems Engineering

Courses

ISE 5001 Engr Stats/Economic Analysis

ISE 5002 Engineering Operations Rsrch

ISE 5003 Ergonomics and Work Design

ISE 5410 Supply Chain Modeling/Analysis

ISE 5421 Leadership Princ and Pos Engag

ISE 5422 Robotic Systems

ISE 5423 Industrial Automation Systems

ISE 5430 EGR Ops Rsrch/Deterministic

ISE 5431 Engr Ops Rsrch/Stochastic Mods

ISE 5434 Metamodel & Opt Mthd in Design

ISE 5435 Data Analytics

ISE 5441 Human Factors Engineering

ISE 5442 Virtual and Augmented Reality

ISE 5443 Automotive User Experience

ISE 5450 Fundamentals/Energy Management

ISE 5455 Foundations of Safety Engr

ISE 5456 Engineering Risk Analysis

ISE 5461 PLM Apps - Product Data Mgmt

ISE 5462 PLM Apps - Robotic Systems

ISE 5463 PLM Apps - Ergonomics

ISE 5464 Design Mfg/Assembly Analysis

ISE 5466 PLM Apps - Change Mgt

ISE 5467 PLM Apps Throughput Simulation

ISE 5469 Cmptr Sim Discrete Event Sys

ISE 5471 Collab Robots & Flex Auto

ISE 5472 Digital Twins in Smart Mfg

ISE 5473 Mixed Reality Apps in Mfg

ISE 5475 Additive Manufacturing

ISE 5480 E-Commerce and ERP

ISE 5483 Prod Systems/Workflow Analysis

ISE 5485 Statistical Quality Analysis

ISE 5487 Foundations of Systems Engr

ISE 5488 Advanced Systems Engineering

ISE 5490 Industrial Sustainability

ISE 5512 Artificial Intell in Mfg

ISE 5517 Stats Methods in Engineering

ISE 5520 Engineering Project Management

ISE 5524 Competing in a Connected World

ISE 5525 Comptng in a Connctd World Lab

ISE 5540 Occupational Biomechanics

ISE 5560 Product Lifecycle Management

ISE 5573 Prod Analysis/Improv Hlth Sys

ISE 5574 Healthcare Informatics

ISE 5581 Lean Principles & Applications

ISE 5610 Energy Conservation Systems

ISE 5900 Special Topics

ISE 5970 Independent Study

ISE 6664 Advanced Computer-Aided Design

ISE 6680 Engineering Decision Analysis

ISE 6684 Computer-Integrated Manuf

ISE 6996 Graduate Engineering Project

ISE 6998 Master's Thesis Research

ISE 7900 Advanced Special Topics

ISE 7970 Advanced Independent Study

SYS 5402 System Optimization & Design

SYS 5404 Signal Linear Systems Analys

SYS 5420 Engineering Project Management

SYS 5421 Leadership Princp and Pos Enga

SYS 5423 Industrial Automation Systems

SYS 5430 Foundations of Systems Engr

SYS 5431 Egr Ops Rsrch/Stochastic Model

SYS 5434 Metamodel & Opt Mthd in Design

SYS 5435 Data Analytics

SYS 5442 Virtual and Augmented Reality

SYS 5443 Automotive User Experience

SYS 5455 Foundations of Safety Engr

SYS 5456 Engineering Risk Analysis

SYS 5469 Computer Simulation In Egr

SYS 5483 Prod Systems/Workflow Analysis

SYS 5485 Statistical Quality Analysis

SYS 5487 Foundations of Systems Engr

SYS 5488 Advanced Systems Engineering

SYS 5490 Industrial Sustainability

SYS 5517 Statistical Methods in Engr

SYS 5520 Automotive Mechatronics I

SYS 5560 Lifecycle Management

SYS 5610 Energy Conservation Sys

SYS 5620 Electrical Energy Systems

SYS 5900 Special Topics
SYS 5970 Independent Study
SYS 6400 Estimation/Control Theory
SYS 6410 Intelligent Control Systems
SYS 6412 Digital Control Systems
SYS 6430 Analysis/Nonlinear Control Sys
SYS 6440 Adaptive Control Systems
SYS 6452 Optimal and Predictive Control
SYS 6462 Dynamic/Cntrl Robot Mani
SYS 6520 Automotive Mechatronics II
SYS 6680 Engineering Decision Analysis
SYS 6996 Graduate Engineering Project
SYS 6998 Master's Thesis Research
SYS 7402 Large-Scale Dynamic Sys
SYS 7404 Linear Multivariable Sys
SYS 7455 Stochastic Optim Control
SYS 7900 Special Topics
SYS 7970 Independent Study

Interdisciplinary Health Sci Department

Interdisciplinary Health Sciences

In Interdisciplinary Health Sciences, we embrace hands-on research and real-world experiences through the perspectives of behavioral, natural and social sciences. Our department offers programs for those interested in pursuing clinical or non-clinical/supportive careers in health care.

Programs

Health Equity
Global and Population Health Services
Epidemiological Research
Public Health
Safety Management
Interdisciplinary Healthcare Systems

Courses

HS 5010 Pharmacology
HS 5100 Evidence Decision & Rsch Hlthc
HS 5200 ID Healthcare Delivery Seminar
HS 5500 Ethic & Prof Prac Hlth Del
HS 5900 Special Topics
HS 6100 Hlthcare Syst & Delv Practicum
HS 6300 App. Inter. Decision Making
HS 6500 Hlthcare Syst & Delv Capstone
HS 6995 Health Sciences Thesis Researc

International Studies Department

International Studies

Liberal Studies Department

Liberal Studies

Earning a Master of Arts in Liberal Studies transcends into many career avenues, curating critical thinking and artistic innovation. Start your journey today by applying for OU's expansive Liberal Arts program!

Programs

Liberal Studies

Courses

LBS 5900 Topics in Language/Literature

LBS 5902 Topics in the Humanities

LBS 5904 Topics in Social Sciences
LBS 5906 Topics in the Sciences
LBS 5940 Introductory Colloquium
LBS 5941 Seminar Language/Literature
LBS 5942 Seminar in the Humanities
LBS 5943 Seminar in Social Sciences
LBS 5944 Seminar in the Sciences
LBS 5970 Independent Study
LBS 6996 Master's Project
LBS 6998 Master's Thesis

Library Department

Library

Courses

LIB 5010 Inform Literacy for Educators

Linguistics Department

Linguistics

Degree programs in the Department of Linguistics equip students with skills in technical writing, research, and collaboration while gaining knowledge relevant to fields of linguistics, speech language, pathology, language instruction, and beyond.

Programs

Teaching English to Speakers of Other Languages PreK-12(TESOL)

Linguistics

Courses

ALS 5517 Models of Second Lang Acquis
ALS 5518 Tchng Engl to Multling Learner
ALS 5538 Curr, Mat Des, Assess, Compl
ALS 5589 Tchng Eng Lang Special Needs
ALS 5960 Practicum
ALS 6530 Language Acquisition
ALS 6570 Language, Culture & Society
ALS 6630 Language Pedagogy
ALS 6633 Curriculum / Assessment Design
ALS 6900 SP: Teaching Eng as Sec Lang
ALS 6960 ESL Practicum
LIN 5501 Linguistic Structures
LIN 5502 Historical Linguistics
LIN 5503 Introduction to Phonology
LIN 5504 Introduction to Syntax
LIN 5505 Phonetic Theory
LIN 5507 Introduction to Semantics
LIN 5515 Computr Parsing Natural Lang
LIN 5534 Language Acquisition
LIN 5535 Psycholinguistics
LIN 5550 Linguistic Typology
LIN 5557 Cognitive Linguistics
LIN 5574 Cross-Cultural Communication
LIN 5575 Language and Culture
LIN 5576 History of English Language
LIN 5580 Language and Society
LIN 5603 Phonological Theory
LIN 5604 Syntactic Theory
LIN 5607 Semantic Theory
LIN 5609 Studies/Struc in a Language

LIN 5613 Advanced Phonology
LIN 5614 Advanced Syntax
LIN 5617 Advanced Semantics
LIN 5670 History of Linguistics
LIN 5988 Studies Linguistics/ Language
LIN 5990 Directed Readings
LIN 6996 Independent Study
LIN 6998 Seminar in Linguistics
LIN 6999 Master's Thesis

Management & Marketing Department

Management and Marketing

The Management and Marketing Department covers three clusters: marketing; organization behavior/human resource management; and management. Within the management cluster, there are three areas: strategic management/policies and strategies; international business; and legal and ethical studies.

Programs

Business Leadership

Human Resource Management

Information Security Management

Marketing

Business Essentials

General Management

International Business

Production/Operations Management

Entrepreneurship

Courses

ENT 5900 ST: Entrepreneurship

HCM 6040 Curr Issues in Health Care

HCM 6060 Qlty Improvement/Health Care

HCM 6240 Gov Policy in Health Care

HCM 6250 Intern'l Comparisons in H.C.

HCM 6330 Managing Cultural Diversity

HCM 6340 Hospital Administration

HCM 6350 Transform Health Care Org

HCM 6360 Contract/Negotiation in H.C.

HCM 6380 New Ventures in HC

HCM 6420 Facilities Planning & Eval

HCM 6450 Managing Technology in HC

HCM 6460 Data Warehousing in HC

HCM 6610 Hlth Care Mktg/Consumer Satis

HCM 6700 Hospital Finance/Managed Care

HCM 6900 Special Topics - HCM

HCM 6970 Ind Study in Health Care Mgt

MGT 5260 International Business

MGT 5330 Leading DEI in Organizations

MGT 5350 Policy, Strategy & Goals

MGT 5360 Policy, Strategy, Goals-Intn'l

MGT 5500 Legal Environment of Business

MGT 5900 Special Topics in Management

MGT 6110 Master's Project

MGT 6380 Labor Management Relations

MGT 6420 Supply Chain Purchasing

MGT 6560 Entrepreneurship

MGT 6600 Launching/Managing Small Bus

MGT 6700 Business Ethics

MGT 6900 Special Topics in Management

MGT 6901 Special Topics: Int'l Business

MGT 6902 Spec Topics: Entrepreneurship

MGT 6970 Independent Study: Management

MGT 6971 Independent Study: Int'l Bus

MGT 6972 Ind Study in Entrepreneurship

MKT 5270 Marketing & Sustainability Mgt

MKT 5600 Marketing Management

MKT 5800 App Data Analytic MKT/Bus Stra

MKT 5900 Special Topics in Marketing

MKT 6040 Consumer Behavior

MKT 6050 Marketing Research

MKT 6080 Strategic Marketing

MKT 6100 Digital Marketing Strategy

MKT 6200 Distribution Channels Mgt

MKT 6250 Supply Chain Logistics

MKT 6500 International Marketing

MKT 6600 Entrepreneurial Marketing

MKT 6700 Business to Business Marketing

MKT 6730 Product and Brand Management

MKT 6750 Relations Global

MKT 6800 Strategic Marketing

MKT 6900 Special Topics: Marketing

MKT 6970 Independent Study in Marketing

Mathematics and Statistics Department

Mathematics and Statistics

The Department of Mathematics and Statistics at Oakland University provides students opportunities to develop mathematical and statistical skills needed for a vast array of math careers today. As one of the largest departments in the College of Arts and Sciences, the Department of Mathematics and Statistics offers a broad range of undergraduate and graduate courses.

Programs

Statistical Methods

Mathematics

Mathematics

Applied Statistics

Applied Statistics

Industrial Applied Mathematics

Applied Mathematical Sciences

Mathematics for Educators/Teaching in Secondary Education

Mathematics for Educators/Teaching in Secondary Education

Courses

APM 5333 Numerical Methods

APM 5334 App Num Methods: Matrix Method

APM 5347 Mathematics of Cryptology

APM 5441 Math Analysis For Engineers I

APM 5442 Math Analysis For Engineers II

APM 5553 Adv Ordinary Diff Equations

APM 5557 Adv Partial Diff Equations

APM 5610 Adv Data Structures/Algorithms

APM 5663 App Mth: Discrete Methods I

APM 5664 App. Math: Discrete Methods II

APM 5665 Differential Geometry

APM 5666 Computational Geometry

APM 5668 Math Model in Ind.: Discrete

APM 5669 Graph Theory & Applications

APM 5777 Computer Algebra

APM 5881 Theory of Computation

APM 5905 Special Topics

APM 5920 Directed Reading & Research

APM 6005 Applied Continuous Math: Topic

APM 6334 Num Meth Part I Diff Equa

APM 6558 Math Model in Ind.: Continuous

APM 6664 Combinatorial Optimization

APM 6665 Approx Rndm Discrete Algorithm

APM 6773 Coding Theory

APM 6945 Problem Solving Seminar

APM 6996 M.S. Research Project

APM 9999 Doctoral Dissertation Research

BST 5441 Longitudinal Data Analysis

BST 5446 Bioinfo/Biomedical Data Mng

BST 5551 Clin Trials/Ethics/Biomed Sci

BST 5771 Intro/Statistical Epidemiology

MOR 5554 Linear & Integer Optimization

MOR 5555 Nonlinear Optimization

MOR 5556 Stochastic Models in OR

MOR 5558 Operations Research Models

MOR 5920 Directed Reading and Research

MTH 5052 Advanced Calculus I

MTH 5053 Advanced Calculus II

MTH 5062 Geometric Structures

MTH 5072 Number Theory with Cryptograph

MTH 5075 Abstract Algebra I

MTH 5076 Abstract Algebra II

MTH 5551 Real Analysis

MTH 5555 Complex Analysis

MTH 5661 Topology I

MTH 5662 Advanced Topics/Topology

MTH 5771 Algebra I

MTH 5772 Algebra II

MTH 5905 Special Topics

MTH 5920 Directed Reading and Research

MTH 6551 Functional Analysis I

MTH 6552 Functional Analysis II

MTH 6770 Algebraic Number Theory

MTH 6771 Commutative Algebra

MTH 6772 Algebraic Geometry

STA 5001 Stat Methods in Res and Prod

STA 5002 Applied Linear Models I

STA 5003 Applied Linear Models II

STA 5006 Statistical Computing

STA 5113 Intro Mathematical/Stats I

STA 5114 Intro Mathematical/Stats II

STA 5221 Multivariate Stat Methods I

STA 5224 Discrete Data Analysis

STA 5225 Stochastic Processes I

STA 5226 Nonparametric Methods

STA 5227 Linear Statistical Models

STA 5229 Stat Methods in Sample Surveys

STA 5330 Time Series I

STA 5331 Bayesian Data Analysis

STA 5332 Reliability and Life Data Anal

STA 5905 Special Topics

STA 5920 Directed Reading and Research

STA 5921 Statistical Consulting

STA 6003 Adv Design of Experiments

STA 6110 Probability Theory

STA 6114 Mathematical Statistics II

STA 6115 Stochastic Processes II

STA 6228 Reliability and Life Data II

STA 6330 Time Series II

STA 6945 Problem Solving Seminar

STA 9999 Doctoral Dissertation Research

Mechanical Engineering Department

Mechanical Engineering

The Department of Mechanical Engineering carries out the mission of the School of Engineering and Computer Science by offering undergraduate majors in Mechanical Engineering, including various depth areas and concentrations. The department offers master's and Ph.D. programs in Mechanical Engineering and a master's program in Energy Engineering. The Department also offers a combined B.S.E./M.S. program in Mechanical Engineering and minors in Mechanical Engineering and in Sustainability Engineering.

Programs

Mechanical Engineering

Mechanical Engineering

Energy Engineering

Mechanical Engineering

Courses

ME 5200 Dynamics

ME 5205 Powertrain Control and Diag

ME 5206 Intelligent Vehicle Control Sy

ME 5210 Analysis/Design of Mech Struct

ME 5220 Mechanical Vibrations

ME 5230 Automotive Driveline Dynamics

ME 5240 Automotive Chassis Systems

ME 5260 Acoustics and Noise Control

ME 5310 Machine Learning Engineering D

ME 5350 Mech Comp-Aided Engineering

ME 5400 Numerical Methods/Mech Engr

ME 5434 Metamodeling Optimiz. Meth Dsg

ME 5505 Fund of Thermal-Fluid Ener Sys

ME 5510 Intermediate Fluid Mechanics

ME 5515 Comp Fluid Dynamics

ME 5520 Intermediate Heat Transfer

ME 5525 Fuel Cell Science and Technolo

ME 5530 Renewable Energy

ME 5535 Introduction to Electric Drive

ME 5540 Internal Combustion Engines I

ME 5545 Fundamentals of Battery System

ME 5550 Fluid and Thermal Energy Sys

ME 5560 Combustion Processes

ME 5570 Sustainable Design For Built E

ME 5580 Fundamentals/Nuclear Engr

ME 5585 Nuclear Reactors/Power Plants

ME 5590 Energy & Sustainability Eng Se

ME 5600 Materials Prop and Processes

ME 5610 Polymeric Materials

ME 5620 Plastics Product Design

ME 5630 Experimental Stress Analysis

ME 5701 Manufacturing Processes

ME 5702 Plastics Processing Engineerin

ME 5710 Lubrication, Friction and Wear

ME 5720 Product & Process Development

ME 5730 Fasteners and Bolted Joints

ME 5750 Optical Measurement & Qlty Insp

ME 5761 Sheet Metal Forming Processes

ME 5900 Special Topics

ME 5970 Independent Study

ME 6210 Mechanical Vibrations

ME 6215 Noise, Vibration and Harshness

ME 6220 Vibration & Sound Measurements

ME 6225 Random Vibrations

ME 6230 Kinematics and Mechanisms

ME 6240 Mechanics of Metal Forming

ME 6250 Advanced Metal Forming

ME 6310 Reliability Methods/Eng Design

ME 6340 Automotive Engineer Design II

ME 6410 Finite Elements

ME 6510 Convective Transport Phenomena

ME 6520 Thermal Transport Phenomena

ME 6540 Internal Combustion Engines II

ME 6585 Adv Auto Propulsion Systems

ME 6610 Mechanics of Composite Material

ME 6620 Theory of Plasticity

ME 6630 Applied Elasticity

ME 6650 Advanced Battery Materials

ME 6660 Fatigue Analysis and Design

ME 6700 Machining Processes

ME 6710 Advanced Tribology

ME 6730 Advanced Material Joining

ME 6750 Optical Meth Experimental Mech

ME 6996 Graduate Engineering Project

ME 6998 Master's Thesis Research

ME 7200 Continuum Mechanics

ME 7210 Vibration Analysis

ME 7220 Nonlinear Vibrations

ME 7410 Advanced Finite Elements

ME 7510 Gas Dynamics

ME 7660 Adv Fatigue Anal & Design

ME 7730 Adv Fasteners & Bolted Joints

ME 7900 Special Topics

ME 7970 Independent Study

ME 8999 Doctoral Dissertation Research

Medical School Department

Medical School

Courses

MDM1 9100 BFCP 1	MDM3 9518 Psychiatry
MDM1 9105 BFCP 2	MDM3 9520 Obstetrics and Gynecology
MDM1 9110 AFCP 1	MDM3 9522 Neurology
MDM1 9111 AFCP 2	MDM3 9524 Ophthalmology
MDM1 9112 AFCP 2A	MDM3 9560 MHCB 5
MDM1 9120 Neuroscience I	MDM3 9561 MHCB 6
MDM1 9121 Cardiovascular	MDM3 9590 Embark 6
MDM1 9122 Respiratory	MDM3 9591 Embark 7
MDM1 9123 Hematology and Lymphoid	MDM3 9592 Embark 8
MDM1 9140 Art and Practice of Medicine 1	MDM3 9600 PRISM 5
MDM1 9141 Art and Practice of Medicine 2	MDM3 9601 PRISM 6
MDM1 9160 MHCB 1	MDM3 9603 USMLE Step 2CK Review
MDM1 9161 MHCB 2	MDM3 9610 IDS 1
MDM1 9180 Promotion Maintenance Hlth 1	MDM3 9612 IDS 2
MDM1 9181 Promotion Maintenance Hlth 2	MDM3 9620 DIS in Medicine
MDM1 9190 Embark 1	MDM3 9625 Diagnostic Radiology CEE
MDM1 9191 Embark 2	MDM3 9626 Interventional Radiology CEE
MDM1 9200 PRISM 1	MDM3 9627 Radiation Oncology CEE
MDM1 9201 PRISM 2	MDM3 9628 Neurosurgery CEE
MDM1 9210 Synthesis	MDM3 9629 PM&R CEE
MDM1 9215 DIBSR	MDM3 9630 Dermatology CEE
MDM1 9220 Clinical Integration 1	MDM3 9631 Anatomic & Clinical Path CEE
MDM1 9420 Clinical Integration 2	MDM3 9632 Nutrition and Preventive Med
MDM2 9310 Gastro Enterology & Hepatology	MDM4 9712 Emergency Medicine
MDM2 9312 Renal and Urinary	MDM4 9713 2wk Emergency Medicine Elect.
MDM2 9314 Endocrinology	MDM4 9714 Anesthesiology/Pain Med Clerk
MDM2 9316 Male and Female Reproductive	MDM4 9715 Anesthesiology/Pain Med Elect
MDM2 9318 MSK Connect Tissue Skin	MDM4 9716 Diagnostic Medicine
MDM2 9323 Behavioral Med & Psychopath	MDM4 9717 Diagnostic Medicine 2
MDM2 9326 Integrative Evidence Based Med	MDM4 9730 Family Med Sub-I
MDM2 9328 Neuroscience 2	MDM4 9732 Internal Med Sub-I
MDM2 9340 Art and Practice of Medicine 3	MDM4 9733 Internal Med Sub-I-Elective
MDM2 9341 Art & Practice of Medicine 4	MDM4 9734 Pediatrics Sub-I
MDM2 9342 Art and Practice of Medicine 5	MDM4 9735 Pediatrics Sub-Intern-Elective
MDM2 9360 MHCB 3	MDM4 9736 Surgery Sub-I
MDM2 9361 MHCB 4	MDM4 9737 Surgery Sub-Intern-Elective
MDM2 9380 Promotion Maintenance Hlth 3	MDM4 9790 Embark 9
MDM2 9381 Promotion Maintenance Hlth 4	MDM4 9791 Embark 10
MDM2 9390 Embark 3	MDM4 9800 PRISM 7
MDM2 9391 Embark 4	MDM4 9801 PRISM 8
MDM2 9392 Embark 5	MDM4 9820 DICE
MDM2 9400 PRISM 3	MDM4 9850 Allergy/Clinical Immunology
MDM2 9401 PRISM 4	MDM4 9851 IM Inpatient Veterans 4-week
MDM2 9410 USMLE Review	MDM4 9856 Cardio 4-week Elec
MDM2 9411 Clinical Internship	MDM4 9858 Cardiovascular Surg
MDM2 9412 Community-based Internship	MDM4 9860 Colon & Rectal Surg
MDM2 9413 Education Training Internship	MDM4 9862 Diagnostic Rad Elec
MDM2 9416 Diagnostic Medicine 1	MDM4 9863 IM Student Chief Elective
MDM2 9420 Clinical Integration 2	MDM4 9864 Emergency Medicine (EM1)
MDM3 9510 Family Medicine	MDM4 9866 Adv'd Emergency Medicine (EM2)
MDM3 9512 Internal Medicine	MDM4 9868 Adv'd Ped Emergency Med (EM3)
MDM3 9514 Surgery	MDM4 9870 Endocrinology/Metabolism
MDM3 9516 Pediatrics	MDM4 9872 Gastro/Hep Elective

MDM4 9874 Geriatric Medicine
MDM4 9876 Hema/Oncology 4-week
MDM4 9878 Infec Disease 4-week
MDM4 9880 Ophthalmology 4-week
MDM4 9882 Maternal Fetal Med
MDM4 9884 Medicine/Pediatrics
MDM4 9886 Neonatal Medicine
MDM4 9888 Nephrology
MDM4 9890 Neurology
MDM4 9892 Neurosurgery
MDM4 9894 Nuclear Medicine
MDM4 9896 OB/GYN Elective
MDM4 9898 Orthopaedic Surgery
MDM4 9900 Pediatrics, Acute Care Clinic
MDM4 9902 Pediatrics, Adolescent
MDM4 9904 Pediatric Cardiology
MDM4 9906 Peds-Developmental/Behavioral
MDM4 9908 Peds Gastro
MDM4 9910 Pediatric Hematology/Oncology
MDM4 9912 Genetics Clinical
MDM4 9914 Peds-General Sub-Internship
MDM4 9916 Peds Infectious Dis
MDM4 9918 Peds Intensive Care
MDM4 9920 Pediatric Neurology
MDM4 9922 Physical Med/Rehabilitation
MDM4 9924 Pulmonary Medicine
MDM4 9925 Med Spanish: NC Prac Comm Outr
MDM4 9926 Radiation Oncology
MDM4 9928 Rheumatology
MDM4 9930 Surgery, General
MDM4 9931 Dermatology Elective
MDM4 9932 Urology
MDM4 9933 Adv Com EM Elective
MDM4 9934 Surgery, Vascular
MDM4 9935 Lifestyle Medicine
MDM4 9936 Surgical ICU
MDM4 9937 Organ Systems TA
MDM4 9938 Fam Med Sub-I Elective (Troy)
MDM4 9939 Adv Addiction Med
MDM4 9940 Integrated Clin Anat
MDM4 9941 Gen Dermatology Ofc Clin Rot
MDM4 9943 Orthopaedic Surgery-Foot/Ankle
MDM4 9944 Orthopaedic Surgery-Sports Med
MDM4 9945 Orthopaedic Surgery-Spine
MDM4 9946 Intro/Clinical Ethics Consult
MDM4 9947 Transplant Surgery
MDM4 9948 DIRE
MDM4 9949 Away Elective Study
MDM4 9950 Global Health Elec
MDM4 9951 Pathology & Lab Med
MDM4 9952 Medical Education
MDM4 9953 Emerg Med POC-Proc Ultrasound
MDM4 9954 Med Genetics/Genomic Medicine
MDM4 9955 General Otolaryngology
MDM4 9956 Amb Endo & Metab Elective
MDM4 9957 Holistic Admissions Review
MDM4 9958 Medical Intensive Care Unit
MDM4 9959 Pulmonary/Critical Care Elect

MDM4 9960 Pulmonary Sleep Medicine-OP
MDM4 9961 Integrative Medicine
MDM4 9962 Emergency Medicine Sub-I
MDM4 9963 Trauma Surgery
MDM4 9964 Breast Disease and Surgery
MDM4 9965 Colon and Rectal Surgery
MDM4 9966 Otolaryngology-Head/Neck Surg
MDM4 9967 Pediatric Surgery
MDM4 9968 Interven Rad Elec
MDM4 9969 Clinical Endocrinology
MDM4 9970 Intro to Pediatric Radiology
MDM4 9971 Art Pract of Med Clinic skills
MDM4 9972 Basic Neuro/Clinical Spec.
MDM4 9973 Plastic/Recon Surger
MDM4 9974 Cardiac Care Unit
MDM4 9975 Inpatient and Outpatient Neph
MDM4 9976 Adv Experimental Design & Data
MDM4 9977 Critical Care Elective
MDM4 9978 Sports Medicine Elective
MDM4 9979 Ethics and Palliative Care
MDM4 9980 Heme/Onc 2-week
MDM4 9981 Infec Disease 2-week
MDM4 9982 Ambulatory Urology
MDM4 9983 Systematic Rev. in Health Care
MDM4 9984 DINCE
MDM4 9985 Surgical Intensive Care
MDM4 9986 Cardiology 2-week Elective
MDM4 9987 2-week Trauma Surgery Elective
MDM4 9988 2-week Dermatology Elective
MDM4 9989 Gynecology Oncology Elective
MDM4 9990 Psychiatry 4-week
MDM4 9991 2wk POC and Procedural Ultraso
MDM4 9992 Gen Surgery Bootcamp
MDM4 9993 Intro to Patient Safety & QI
MDM4 9994 Advanced Patient Safety & QI
MDM4 9995 Addiction Med Elec
MDM4 9996 Public Health
MDM4 9997 Competent Care LGBTQ
MDM4 9998 Ophthalmology 2-week
MDM4 9999 2wk Gen. Pediatric, Acute Care
MSCI 6996 Embark MSCI Capstone Research

Modern Languages & Literatures Department

Modern Languages and Literatures

Programs

Spanish Language and Literature/Court Administration
Spanish Language and Literature/Health Care Administration
Spanish Language and Literature/Nonprofit Organization and Management
Spanish Language and Literature/Local Government Management
Spanish Language and Literature/Criminal Justice Leadership
German Language and Literature/Health Care Administration
Japanese Language and Literature/Health Care Administration
Spanish Language and Literature/Health Care Administration
French Language and Literature/Nonprofit Organization and Management
German Language and Literature/Nonprofit Organization and Management
Japanese Language and Literature/Nonprofit Organization and Management
Spanish Language and Literature/Nonprofit Organization and Management
French Language and Literature/Local Government Management
German Language and Literature/Local Government Management
Japanese Language and Literature/Local Government Management
Spanish Language and Literature/Local Government Management
German Language and Literature/Court Administration
French Language and Literature/Criminal Justice Leadership
German Language and Literature/Criminal Justice Leadership
Japanese Language and Literature/Criminal Justice Leadership
Spanish Language and Literature/Criminal Justice Leadership
Japanese Language and Literature/Court Administration
Spanish Language and Literature/Court Administration
French Language and Literature/Health Care Administration

Courses

ML 5020 Grammar Review Through Trans.
ML 5040 Frgn Lang Sem: Lang & Culture
ML 5050 Frgn Lang Sem: Conv & Culture
ML 5210 Advanced Comp: FR, GER, SPN
ML 5220 Advanced Oral Practice

Music Department

Music

Programs

Piano Performance
Conducting, Graduate Certificate
Instrumental Performance
Music Education
Vocal Pedagogy, Master of Music
Vocal Performance, Master of Music
Piano Pedagogy
Piano Performance
Conducting
Instrumental Performance
World Percussion Performance, Master of Music

Courses

MUA 5000 Voice
 MUA 5000P Voice
 MUA 5002 Piano
 MUA 5003 Applied Piano/Performer's Cert
 MUA 5005 Harpsichord
 MUA 5011 Viola
 MUA 5012 Violoncello
 MUA 5013 Double Bass
 MUA 5020 Flute
 MUA 5021 Oboe
 MUA 5022 Clarinet
 MUA 5023 Bassoon
 MUA 5024 Saxophone
 MUA 5030 French Horn
 MUA 5031 Trumpet
 MUA 5032 Trombone
 MUA 5033 Euphonium
 MUA 5034 Tuba
 MUA 5040 Timpani
 MUA 5041 Percussion
 MUA 5050 Harp
 MUA 5051 Guitar (Classical)
 MUA 5060 Piano (Jazz)
 MUA 5062 Trumpet (Jazz)
 MUA 5063 Saxophone (Jazz)
 MUA 5065 Percussion (Jazz)
 MUA 5066 Double Bass (Jazz)
 MUA 5075 World Percussion
 MUA 5076 Applied Raga
 MUA 5562 Instrumental Repertoire
 MUA 5563 Instrumental Pedagogy
 MUA 5564 Instrumental Performance Topic
 MUA 5960 Applied Study/Secondary Area
 MUA 5996 Graduate Recital
 MUA 6020 Applied Conducting
 MUA 6996 Master's Recital
 MUE 5001 University Chorus
 MUE 5004 Oakland Chorale
 MUE 5004P Oakland Chorale
 MUE 5015 Oakland Jazz Singers
 MUE 5019 Chamber Orchestra
 MUE 5020 Oakland Symphony
 MUE 5029 Symphonic Band
 MUE 5031 Wind Symphony
 MUE 5035 Brass Band
 MUE 5040 Oakland University Jazz Band
 MUE 5041 Jazz Improvisation Combos
 MUE 5042 Creative Jazz Ensemble
 MUE 5045 African Ensemble
 MUE 5046 Steel Band
 MUE 5048 World Percussion Ensemble
 MUE 5050 Opera Workshop
 MUE 5055 Opera
 MUE 5065 Contemporary Music Ensemble
 MUE 5071 Saxophone Chamber Music
 MUE 5072 Woodwind Chamber Music

MUE 5073 Percussion Ensemble
 MUE 5074 Brass Chamber Music
 MUE 5075 Piano Ensemble
 MUE 5076 String Chamber Music
 MUE 5080 Chamber Music
 MUS 5027 American Music
 MUS 5111 Diction for Singers I
 MUS 5112 Diction for Singers II
 MUS 5234 Analysis of Music for Teaching
 MUS 5235 Analytical Tech in Tonal Music
 MUS 5236 Analysis of Post -1900 Music
 MUS 5300 Intro to Grad Study in Music
 MUS 5321 Sem Medieval/Renaissance Music
 MUS 5322 Sem Baroque/Classical Music
 MUS 5323 Seminar/Music 1800 to Present
 MUS 5323P Seminar/Music 1800 to Present
 MUS 5325 Global Music Seminar
 MUS 5328 Late Baroque Music
 MUS 5431 Hist & Phil of Music Education
 MUS 5432 Psych Foundations of Music
 MUS 5433 Learning Theory/Studio Tch
 MUS 5434 K-12 Mus/Lrn Exceptionalities
 MUS 5435 Global Arts Study Abroad
 MUS 5438 Issues-Music Ed-21st Century
 MUS 5439 Teach Learn Music 21st Cent
 MUS 5476 Lit for MS and HS Band
 MUS 5495 Innovations in Music Education
 MUS 5541 Piano Ped I:Beginner Method Bk
 MUS 5542 Piano Pedagogy II: Int. Rep.
 MUS 5543 Piano Pedagogy III: Baroque Cl
 MUS 5544 Piano Pedagogy IV: Romantic
 MUS 5551 Vocal Pedagogy I
 MUS 5552 Vocal Pedagogy II
 MUS 5555 Piano Repertoire I
 MUS 5556 Piano Repertoire II
 MUS 5561 Vocal Repertoire I
 MUS 5562 Vocal Repertoire II
 MUS 5565 Survey/Study of Choral Lit
 MUS 5581 Adv Choral Interp & Conducting
 MUS 5581P Adv Choral Interp & Conducting
 MUS 5582 Adv Instr Interp & Conducting
 MUS 5900 Special Topics in Music
 MUS 5996 Independent Study
 MUS 6401 General Music Ed Workshop
 MUS 6402 Choral Music Ed Workshop
 MUS 6403 Instr Music Ed Workshop
 MUS 6404 World Percussion Pedagogy
 MUS 6405 Creative Proc in Mus Ed W/shop
 MUS 6406 Perform Proc Mus Ed W/shop
 MUS 6407 Listening Proc Mus Ed W/shop
 MUS 6408 Issues in Music Ed W/shop
 MUS 6409 Tech in Music Ed Workshop
 MUS 6410 Tech Prob in Mus Ed Wk/shop
 MUS 6430 Intro to Mus Tech for Educator
 MUS 6434 Classroom Mgt/K-12 Music Ed
 MUS 6435 Music Education Advocacy

MUS 6441 Teachg/Understg/Elem/Gen/Music
MUS 6442 Teachg/Understdg/Sec/Gen/Music
MUS 6443 Techg/Mus/Understg/Choral
MUS 6444 TMU in Instrumental Ensembles
MUS 6445 Music Curric Design/Assessment
MUS 6446 Assessment in Performance
MUS 6447 TMU with Technology
MUS 6448 Choral Methods for Instrumenta
MUS 6449 TMU in Beginning Instr Music
MUS 6450 Research Methods/Music Ed
MUS 6940 Graduate Seminar
MUS 6960 Online Site-based Practicum
MUS 6969 Practicum Analysis/Reflection
MUS 6993 Apprentice College Teaching
MUS 6995 Directed Research in Music Ed
MUS 6996 Master's Project
MUS 6998 Master's Thesis
MUS 7731 Philosophical Foundations
MUS 7732 Psychological Foundations
MUS 7740 Research Methods
MUS 7940 Doctoral Seminar/Music Ed
MUS 7996 Independent Study
MUS 8900 SpecTopics/Music & Music Ed
MUS 8911 Rdgs. in Music Ed. Spec.
MUS 8912 Rdgs. in Music Ed. Methodology
MUS 8913 Rdgs. in Music Ed. Psych.
MUS 8914 Rdgs. in Music Ed. Phil.
MUS 8920 Readings in Music Education
MUS 8960 Research Mentorship I
MUS 8961 Research Mentorship II
MUS 9900 Dissertation Proposal
MUS 9999 Dissertation Research

Music, Theatre, & Dance Department

Music, Theatre, & Dance

Programs

Music

Nursing Department

Nursing

Programs

Nurse Anesthesia

Nursing Practice

Forensic Nursing

Adult/Gerontological Nurse Practitioner Acute Care

Adult/Gerontological Nurse Practitioner Primary Care

Family Nurse Practitioner

Forensic Nursing

Nursing

Adult Gerontological Nurse Practitioner Acute Care

Family Nurse Practitioner Primary Care

Courses

NRS 5241 Sys Lead Hth Pol Adv Nrs Prac

NRS 5251 Interprof Role Dev/Ethic-ANP

NRS 5302 Statistics in Adv NRS Practice

NRS 5312 Theory/Trans Res Adv Nrs Prac

NRS 5322 Nrs Schship and Dissemination
 NRS 5991 Topical Seminar in Nursing
 NRS 6232 Pop Focused Nsg Care
 NRS 6398 Graduate Project
 NRS 6411 Adv Patho Across Lifespan
 NRS 6421 Adv Hlth Assess Across Lifespa
 NRS 6441 ADV Pharm Across Lifespan
 NRS 6617 Adv Concept Ped Dev/Disease
 NRS 6627 Adv Concepts in Gerontology
 NRS 6633 Health Promo Across Lifespan
 NRS 6635 Intro Clinical Nurse Lead Role
 NRS 6637 Adv Nrs Care Episodic Hlth Con
 NRS 6642 Biophysics and Chem for NA
 NRS 6645 Sys Leader/Org Change/Outcome
 NRS 6646 Org Theory/Quality Mgmt
 NRS 6647 Adv Nrs Care Chronic Hlth Cond
 NRS 6652 Nurse Anesthesia Practice I
 NRS 6657 Adv Nrs Care Ped Patients
 NRS 6662 Nurse Anesthesia Practice II
 NRS 6667 Adv Nrs Care Aging Adult
 NRS 6672 Nurse Anesthesia Practice III
 NRS 6682 Reg Anesthesia and Pain Mgmt
 NRS 6712 Curriculum/Instruction Nrs Ed
 NRS 6722 Evaluation in NRS Education
 NRS 6725 Death Investigation Clinical
 NRS 6732 Role Trans Adult-Gero Acute Ca
 NRS 6734 NP Diag Test Proc Acute Care S
 NRS 6737 Adult/Gero NP Clin Con Acute C
 NRS 6741 Foundations/Forensic Nursing
 NRS 6745 Interper Violence/Maltreat Cli
 NRS 6747 Adult/Gero NP Clin Con Acute C
 NRS 6755 Interper Violence/Maltreat
 NRS 6761 Emergency Prep/Disaster Mgmt
 NRS 6765 Emer Prep/Disaster Mgmt Clin
 NRS 6767 Adult/Gero NP Clin Con Acute C
 NRS 6771 Forensic Nurse Death Invest
 NRS 6785 Adv Forensic Nursing Clinical
 NRS 6932 Field Experience in NRS Edu
 NRS 6941 Adv Forensic Nursing Seminar
 NRS 6987 CNL Role Seminar
 NRS 6990 Independent Study in Nursing
 NRS 6997 CNL Practicum
 NRS 6998 Graduate Research Project
 NRS 7398 Research Practicum I
 NRS 7399 Research Practicum II
 NRS 7611 Adv Hlth Assess for NA
 NRS 7712 Adv Pharm for NA Prac I
 NRS 7715 NA Clinical Internship I
 NRS 7722 Adv Pharm for NA Prac II
 NRS 7725 NA Clinical Internship II
 NRS 7732 Adv Pharm for NA Prac III
 NRS 7735 NA Clinical Internship III
 NRS 7745 NA Clinical Internship IV
 NRS 7755 NA Clinical Internship V
 NRS 7765 NA Clinical Internship VI
 NRS 7775 NA Clinical Intnship VII
 NRS 7785 NA Clinical Intrnship VIII
 NRS 8211 Advanced Nursing Theory

NRS 8221 Health System Policy
 NRS 8231 Organizational/Systems Ldrship
 NRS 8241 Nrs/Hlthcare Informatics Ldrsh
 NRS 8382 Health Care Economics
 NRS 8504 Interpro Role Dev & Ethic NA
 NRS 8671 Adv Scientific Methods for EBP
 NRS 8681 Clin Prevent/Population Health
 NRS 8712 Theory & Translating Research
 NRS 8722 Adv Prac Sem NA II: Adv Resp
 NRS 8732 Adv Conc Peri Cardiac Care
 NRS 8742 Approaches to Healthcare Educa
 NRS 8762 Cumulative Review
 NRS 8782 Grant Writing
 NRS 8998 DNP Final Project
 NRS 9201 Phil Found Adv Thry Dev
 NRS 9202 Adv Hlth Care Stat
 NRS 9311 Qual Research Methods
 NRS 9312 Quan Research Methods
 NRS 9315 Measure, Design, and Big Data
 NRS 9696 Dissertation Proposal Synthesi
 NRS 9911 Health Care Quality
 NRS 9913 Adv of Health Outcomes
 NRS 9999 Dissertation Research

Organizational Leadership Department

Organizational Leadership

The **Department of Organizational Leadership** within Oakland University's School of Education and Human Service is home to programs in human resources development, teacher leadership, school leadership at the principal and central office levels, and higher education leadership.

Programs

Educational Leadership
Organizational Leadership
Lean Leadership
Human Diversity, Inclusion and Social Justice
Organizational Leadership
School Administration

Courses

EA 7720 School as Formal Organization
EA 7730 Program Assessment
EA 7740 Curriculum & Staff Development
EA 7750 Test/Measure/Data Analysis
EA 7780 Educational Law
EA 7940 Sem School/Community Develop
EA 7950 Internship Experience I
EA 8820 Hum Resource Mgt & Supervision
EA 8840 School Business Management
EA 8850 Action Research for Ed Leaders
EA 8950 Internship Experience II
ED 7500 Contemporary American High Ed
ED 7510 Administering College/Univ
ED 7520 Crit Ldrshp Perspectives HighEd
ED 7540 Resource Mgt in Higher Ed
ED 7580 Crit Soc Justice Persp High Ed
ED 7682 Crit Hst Perspectives High Ed
ED 7683 Introduction to Student Affair
ED 7684 Intro to Academic Affairs
ED 7950 Internship in Higher Education
ED 8000 Foundation/District Leadership
ED 8010 Inst Lead/Using Data & Issues
ED 8020 Organizational Resources & Ops
ED 8025 District Role/Formal-Informal
ED 8030 District Leadership/Community
ED 8040 Ldrshp Beyond School District
ED 8410 Phil/Ethical Issues Org Ldrshp
ED 8420 Adv Politics/Policy Org Ldrshp
ED 8430 Diversity in Orgn Ldrshp
ED 8440 Org/Adlt Lrn Theories/Prof Cap
ED 8450 Motivation and Org Leadership
ED 8460 Prin Org Ldrshp
ED 8610 Program Evaluation
ED 8620 Evidence for Program Evaluatio
ED 8630 Capstone Project Completion
ED 8950 Intern/District Level Ldrshp
ED 8951 Expanding the Internship
ED 8952 Reflecting on the Internship
ED 8953 Org Leadership Internship I
ED 8954 Org Leadership Internship II
ED 8955 Org Leadership Internship III
ED 8970 Independent Doctoral Studies
ED 9010 Research Methodology

ED 9020 Analytical Methods
ED 9100 Ldr Research Issues/Prop Dev
ED 9900 Topics in Advanced Methodology
ED 9930 Field-Based Mentor Issues I
ED 9931 Field-Based Mentor Issues II
ED 9940 Professional Seminar I
ED 9941 Professional Seminar II
ED 9942 Doc Wrtg Ed Ldrshp
ED 9999 Dissertation Research
EL 5100 Foundations of Leadership
EL 5110 Collaborative Leadership
EL 5300 Intro to Educational Ldrshp
EL 5320 Staff/Curr Dev for Schl Impr
EL 5340 Law for Teachers/Admin
EL 5360 Schools, Students/Ed Equity
EL 5900 Current Issues/Amer Higher Ed
EL 6100 Technology for Leadership
EL 6110 Change Agent Equitable Schools
EL 6120 Teacher Ldrs in Ed Profession
EL 6160 Human Diversity Capstone
EL 6300 Theories/Techniques of Ldrshp
EL 6320 School Finance/Bus Admin
EL 6680 Intro to American Higher Ed
EL 6681 Higher Ed & Ed Equity
EL 6682 Crit Hst Perspectives High Ed
EL 6683 Introduction to Student Affair
EL 6684 Intro to Academic Affairs
EL 6685 Higher ED Ldrshp Inclusion
EL 6686 Crit Higher ED Policy Pract
EL 6900 Current Topics/Higher Ed
EL 6950 Capstone Port and Internship
EL 6955 Intern for School Leaders I
EL 6956 Intern for School Leaders II
EL 6960 Culm Master's Practicum in EL
EL 6990 Special Studies in Ed Ldrshp
EL 6996 Issues in Educational Ldrshp
HRD 6000 Theoretical Foundations in T&D
HRD 6010 Instructional Design
HRD 6020 Needs Assessment
HRD 6030 Program Evaluation
HRD 6040 Program Administration
HRD 6050 E-learning Design/Development
HRD 6060 Advanced Instructional Design

HRD 6070 Instr Design Theory to Practic
HRD 6080 Org. Culture and Change
HRD 6090 Developing and Leading Teams
HRD 6100 Ldrship Theory and Dev
HRD 6110 Ethics in HRD
HRD 6120 Career Development
HRD 6130 Org Development in Action
HRD 6140 Intro Human Diverse Inclusion
HRD 6150 Leadership in a Global Context
HRD 6160 Spirituality and Racism
HRD 6170 Motivation/Leadership in Orgs
HRD 6800 Leadership Sem & Prof Port
HRD 6801 Intro of Lean Leadership I
HRD 6802 Intro of Lean Leadership II
HRD 6803 Methods of Lean Leadership I
HRD 6804 Methods of Lean Leadership II
HRD 6900 Current Trends
HRD 6950 Lean Leadership Intern I
HRD 6951 Lean Leadership Intern II
HRD 6970 Independent Study
ORG 5300 Organizational Behavior
ORG 5900 Special Topics in Org Behavior
ORG 6310 Strategic Human Resource Mgt
ORG 6320 Change Management
ORG 6350 Decision Making in Orgs
ORG 6360 Leadership & Group Performance
ORG 6370 Motivation and Work Behavior
ORG 6700 International Org Behav & HR
ORG 6720 Creativity
ORG 6900 Special Topics: Org. Behavior
ORG 6970 Independent Study/Org Behavior

Philosophy Department

Philosophy

Physics Department

Physics

The Department of Physics faculty are currently involved in research in the following broad areas: biophysics and medical physics, condensed matter physics theory and experiment, and gravitational physics theory. Specifically, the biophysics and medical physics group has been studying and developing therapies for the treatment of neural injury and neurodegenerative diseases and brain tumors, the biophysics and biomechanics of osteoarthritis, cardiac electrophysiology, and the invasion and clustering of cancer cells. Methods and tools employed in these studies include NMR imaging, NMR microscopy, multi-modality microscopic imaging, in vivo NMR spectroscopy, neuromagnetism, two-photon laser scanning confocal microscopy, laser-capture microscopy, time-lapse microscopy, electron microscopy, and advanced molecular biological methods and mathematical analyses. The condensed matter physics group conducts theoretical studies of the linear and nonlinear dynamics of spin waves and phenomena associated with phase transitions and experiments on magnetic properties of technologically useful materials, optical properties of semiconductors and carbon nanotubes under high pressure, instabilities and pattern formation in granular matter, front propagation in biological systems, and crystal growth of diamond films and silicon ribbons. The gravitational theory group's research centers on critical phenomena, chaos, and the nature of generic singularities in Einstein's theory of general relativity.

Research facilities in the high pressure optics laboratory include Raman spectrometers with single or multi-channel detectors, facilities for photoluminescence studies in the visible and infrared regions, argon ion and Ti: sapphire lasers, high pressure cells capable of generating 10 GPa, and closed cycle helium refrigerators. Research facilities in the condensed matter physics laboratories include a Magneto-optical Kerr Effect spectroscopy, fiber optics Kerr spectroscopy, low-noise probe station, Faraday Magnetometer, an AC susceptometer, a ferromagnetic resonance spectrometer at x-band, a scanning probe microscope, a scanning microwave microscope, vector network analyzers (1 kHz-110 GHz), a Philips x-ray diffractometer, one and two kilowatt RF power supplies with 50W matching networks for silicon ribbon growth, and vacuum facilities for thin film evaporation and fullerene preparation. Research facilities in the NMR microscopy laboratory include a Bruker AVANCE IIIHD 300 NMR spectrometer with a 7-Tesla/89-mm bore superconducting magnet and micro-imaging accessories, PerkinElmer Spotlight 300 Fourier-transform infrared microscope, Leica polarized light microscope, Skyscan 1174 micro-CT scanner, and Endura TEC 3200 mechanical testing system. The

department also has microwave device facilities in the frequency range from 100 kHz to 70 GHz. Supporting facilities include electronics and mechanical workshops staffed by experienced technical personnel. Computer facilities include a 200-node supercomputer cluster for high performance computing, plus a number of workstations, and numerous Macintosh and PC computers. Most research laboratories are located in the modern Mathematics and Science Center.

The Physics Department has two modern computer clusters, the newest one, funded through the NSF Major Research Instrumentation Program, is composed of 24 nodes containing two AMD Opteron 6136 "Magny-Cours" running at 2.4 GHz, with 8 cores and 64 GB RAM each, for a total of 384 cores and more than 1.5 TB of RAM. In addition, the two head nodes combined provide 18 TB of hard disk space. Both clusters are located in modern computer rooms at the Oakland Information Technology Center.

Among research facilities in neighboring hospitals available to medical physics students are a 3.0-Tesla whole-body NMR system and two 7.0-Tesla/20-cm horizontal bore magnet NMR systems for imaging and in vivo spectroscopy, a 7-channel SQUID magnetometer, a 148-channel whole-head SQUID neuromagnetometer, a Zeiss LSM 510 two photon microscope, Leica LMD 6000 laser microdissection system, Philips EM208 transmission electron microscope, a nuclear medicine laboratory, radiology and CT scanning facilities, advanced modalities cancer therapy laboratory (including radiotherapy), diagnostic ultrasonic equipment, a laser surgery laboratory, and major hospital medical libraries.

Programs

Physics

Applied and Computational Physics, Doctor of Philosophy

Biomedical Physics

Integrated Science/Teaching in Secondary Education

Courses

PHT 5150 Physics Teaching:Exp and Equip

PHY 5040 Advanced Astrophysics I

PHY 5050 Advanced Astrophysics II

PHY 5220 Stats Thermodynamics

PHY 5250 Radiation Biophysics

PHY 5300 Bioelectric Phenomena

PHY 5350 Modeling Complex Systems

PHY 5420 Advanced Electronics

PHY 5450 Physics of NMR and MRI

PHY 5480 Advanced Electronics Lab

PHY 5520 Theoretical Physics

PHY 5530 Numerical Methods in Theo Phy

PHY 5620 Mechanics II

PHY 5650 Phys Continuous Media

PHY 5720 Quantum Mechanics I

PHY 5730 Nuclear Physics

PHY 5740 Intro To Solid State Phy

PHY 5830 Classical Electrodynamics

PHY 5900 Selected Topics in Physics

PHY 5920 Directed Readings in Physics

PHY 6150 Ethics & Law in Sci. & Engine

PHY 6310 Biomechanics

PHY 6320 Intro To Lasers & Masers

PHY 6650 Physics Of Fluids In the Body

PHY 6730 Quantum Mechanics

PHY 6740 Advanced Quantum Mechanics

PHY 6900 Currnt Topic Medical Phy

PHY 6940 Seminar

PHY 6996 Master of Science Research

PHY 7210 Inter of Non-Ionizing Radiat

PHY 7260 Advanced Radiatn Biophysics

PHY 8999 Doctoral Research

Political Science Department

Political Science

The Political Science Department is home to the Master of Public Administration, one of the largest graduate programs in the College of Arts and Sciences. We have excellent faculty who have come to OU from across the nation and world to provide you an excellent educational experience. Our faculty truly fit the scholar-teacher model, as their first-class research helps inform and enhance their outstanding work in the classroom. We offer courses on topics ranging from the presidency to politics and the Internet, from religion and politics to the court system, from human rights to the politics of terrorism, and human resources to public budgeting. We also offer a number of General Education courses in the areas of Social Science, Western Civilization, Global Perspectives, and U.S. Diversity.

Many of our students are looking to prepare for careers in government, law, practical politics like campaigning and lobbying, or the teaching of government and social studies. Students earning a degree from the Political Science Department also go on to careers in the non-profit and business sectors and a wide range of graduate programs. However, a degree from our Department is, at its heart, a liberal arts degree, which will help you develop skills like critical thinking, writing, data analysis, and other skills that employers report they are looking for.

Programs

Court Administration

Health Care Administration

Nonprofit Organization and Management

Local Government Management

Criminal Justice Leadership

Public Administration

Public Administration and Public Policy

German Language and Literature/Health Care Administration

International Relations/Health Care Administration

Japanese Language and Literature/Health Care Administration

Political Science/Health Care Administration

French Language and Literature/Nonprofit Organization and Management

German Language and Literature/Nonprofit Organization and Management

International Relations/Nonprofit Organization and Management

Japanese Language and Literature/Nonprofit Organization and Management

Political Science/Nonprofit Organization and Management

French Language and Literature/Local Government Management

German Language and Literature/Local Government Management

International Relations/Local Government Management

Japanese Language and Literature/Local Government Management

Political Science/Local Government Management

German Language and Literature/Court Administration

French Language and Literature/Criminal Justice Leadership

German Language and Literature/Criminal Justice Leadership

International Relations/Criminal Justice Leadership

Japanese Language and Literature/Criminal Justice Leadership

Political Science /Criminal Justice Leadership

Interdisciplinary Studies/Public Administration

International Relations/Court Administration

Japanese Language and Literature/Court Administration

Political Science /Court Administration

French Language and Literature/Health Care Administration

Courses

PA 5010 Rsrch Perspective & Techniques

PA 5020 Intro Gov & Nonprofit Acctng

PA 5030 Government and the Economy

PA 5040 Intergovernmental Relations

PA 5050 Administrative Ethics

PA 5060 Strategic Planning

PA 5070 Risk Management

PA 5100 Foundations of Public Admin

PA 5110 Law & Public Policy

PA 5111 Publ Serv Accountability & Law

PA 5120 Law & Admin: Local Perspective

PA 5130 Law & Admin: State Perspective

PA 5140 Public Adm: Issues & Problems

PA 5150 Contemporary Public Mgt Tech

PA 5160 Public Administration Workshop

PA 5200 Public Budgeting and Finance

PA 5210 Workshop in Budgeting
PA 5300 Human Resources Mgmt Pub Sectr
PA 5310 Public Sector Empl Relat
PA 5320 Current Issues Human Rsce Mgmt
PA 5400 Local Governmt Managemnt
PA 5500 Non-Profit Orgnzn & Mgt
PA 5600 Org/Admin Hlth/Med Prog
PA 5700 Org/Mgt/Crimn'l Just Agencies
PA 5800 Court Administration
PA 6100 Quantitative Meth Public Adm
PA 6200 Pub Sector Info Systems Mgmt
PA 6300 Program and Policy Evaluation
PA 6400 Econ Development Theory/Pract
PA 6410 Community Planning & Zoning
PA 6500 Fundraising & Philanthropy
PA 6510 Grants:Politics/Administration
PA 6600 Public Policy & Health Care
PA 6610 Hlth Plan: Policies & Process
PA 6700 Law Enforcement Leadership
PA 6710 Security Leadership
PA 6720 Corrections Leadership
PA 6800 Advanced Court Administration
PA 6900 Special Topics Public Admin
PA 6920 Directed Readings
PA 6950 Internship
PA 6996 Master's Project

Psychology Department

Psychology

The Department of Psychology offers several degrees, including Bachelor of Arts, Master of Science, and Doctor of Philosophy. These programs are intended to provide students with the knowledge, skills, and experiences necessary to become successful consumers and producers of psychological science.

Programs

Psychology

Psychology

Psychology

Courses

PSY 5001 Adv Meth Psy/Behav Res I
PSY 5002 Adv Meth Psy/Behav Res II
PSY 5101 Adv Stats for Psy/Behav Res I
PSY 5102 Adv Stats for Psy/Behav Res II
PSY 5103 Introduction to SEM
PSY 5104 Introduction to MLM
PSY 5201 Social Cog & Interper Process
PSY 5202 Self & Interper Relationships
PSY 5203 Culture and Trauma
PSY 5204 Emotion and Motivation
PSY 5205 Individuals and Communities
PSY 5206 Proseminar Soc/Behav Process
PSY 5207 Persnalty, Ind Diff & Intellig
PSY 5208 Intergroup Relations
PSY 5301 Animal Cognition
PSY 5302 Evol Psych & Animal Behavior
PSY 5303 Hormones & Human Behavior
PSY 5304 Psychology of Human Sexuality

PSY 5305 Curr Dir-Evolutionary Psych
PSY 5401 Bio Factors of Hlth & Wellness
PSY 5402 Health Behavior Change
PSY 5408 Analysis of Psychopathology
PSY 5501 Life-span Devel Theories & Res
PSY 5502 Seminar-Cognitive Development
PSY 5601 Cog Psy: Theory & Application
PSY 5602 Conditioning, Learning, Memory
PSY 5603 Biopsychosocial Mediation of C
PSY 5604 Human Vision
PSY 5605 Neuroanat/Brain Development
PSY 5606 Proseminar Biol/Basic Process
PSY 5607 Adv Topics/Bio & Basic Processes
PSY 5990 Adv Top in Meth Psy/Behav Dsn
PSY 5991 Adv Topics in Psych Statistics
PSY 5992 Adv Top in Soc/Behav Processes
PSY 5993 Spec Topics-Behavioral Health
PSY 6001 Instruction/Psychology Science

PSY 6970 Independent Study
PSY 6996 Master of Science Project
PSY 6998 Master of Science Thesis
PSY 8999 Doctoral Dissertation Research

Public and Environ Wellness Department

Public and Environmental Wellness

Many of our students are looking to prepare for careers in government, law, practical politics like campaigning and lobbying, or the teaching of government and social studies. Students earning a degree from the Political Science Department also go on to careers in the non-profit and business sectors and a wide range of graduate programs. However, a degree from our Department is, at its heart, a liberal arts degree, which will help you develop skills like critical thinking, writing, data analysis, and other skills that employers report they are looking for.

Programs

Environmental Protection
Human Factors and Ergonomics
Industrial Hygiene
Environmental Health and Safety Management
Public Health
MSSM in Safety Management and MBA
Environmental Health and Safety/ Safety Management

Courses

EHS 5000 Introduction to EHS Research	PH 6450 Regression Modeling/PubHlth
EHS 5100 Fundamentals of Occ Hygiene	PH 6850 Legal/Ethical Issues/Pub Hlth
EHS 5200 Advanced Safety/Health Admin	PH 6960 Public Health Practicum
EHS 5400 Risk Assessment/Loss Control	
EHS 5410 Accid/Incident Inv and Analys	
EHS 5420 Construction Safety	
EHS 5440 Environmental Standards	
EHS 5450 Ergonomics	
EHS 5460 Industrial Toxicology	
EHS 5550 Env Controls	
EHS 5600 Applied System Safety Analysis	
EHS 6996 Capstone Course	
PH 5000 Fndations Hlth Behav/Hlth Ed	
PH 5100 Principles/Comm-Based Part Res	
PH 5150 Soc Act Health Sustainability	
PH 5200 Planning/Imp/Eval/PH Interven	
PH 5250 Res Methods/Health Disciplines	
PH 5350 Environmental Justice	
PH 5410 Biostatistical Method/Pub Heal	
PH 5411 Biostatistical Methods/PH Lab	
PH 5450 Applied Biostats in PH	
PH 5451 Applied Biostats in PH Lab	
PH 5500 Introduction to Epidemiology	
PH 5550 Qualitative Research Methods	
PH 5600 Intro to Environmental Hlth Sc	
PH 5650 Social Determinants of Health	
PH 5700 Health Policy and Management	
PH 5750 Global Health & Social Issues	
PH 5850 Pop Health, Policy, Care	
PH 5900 Special Topics	
PH 5970 Independent Study	
PH 5980 Interprofessional Education	
PH 5996 Public Health Capstone	
PH 6150 Quant/Qual Research Methods	
PH 6250 Mechnsm/Chronic Infect Disease	

Religious Studies Department

Religious Studies

School of Business Admin Department

School of Business Admin

Programs

Business Administration

Courses

EMBA 5000 Team. Comm. and Intro. Bus.

EMBA 5040 Data Analytics for Executives

EMBA 5110 Fin. Acctg and Disc.

EMBA 5120 Man. Acctg. and Dec. Making

EMBA 5210 Strategic and Comp. Anal.

EMBA 5220 Global Macroeconomic Env. Bus.

EMBA 5300 Team Bldg/Leadership/Comm

EMBA 5310 Leading People and Org.

EMBA 5315 Leadership Feedback and Develo

EMBA 5320 Negotiations and Conflict Reso

EMBA 5350 Global Strategic Management

EMBA 5370 Integrative Capstone Project

EMBA 5410 Operations Management

EMBA 5450 Bus. Info. and Anal. Sys.

EMBA 5500 Law, Ethics, and Leadership

EMBA 5600 Marketing Management

EMBA 5700 Strategic Finance

EMBA 6370 Entrepreneurial Ldrshp

EMBA 6410 Privacy and Security

EMBA 6500 Lean Leadership

EMBA 6600 Special Topic

EMBA 6900 Special Topic

EMBA 6930 C-Suite Pres. and Prof. Dev.

School of Engineering & CS Department

School of Engineering & CS

School of Health Sciences Department

School of Health Sciences

Science Department

Science

Courses

SCI 5110 Ethics and Practice of Science

Soc, An, Social Work, CJ Department

Soc, An, Social Work, CJ

Programs

Social Work: Advanced Standing Program

Social Work: Traditional Program, Master of Social Work

Courses

SOC 5000 Sociological Theory

SOC 5020 Spec Fld Techn Soc Rsrch

SOC 5140 Social Contxt Social Wrk
SOC 5270 Police & Society
SOC 5370 Sociology of the Courts
SW 5000 Intro to Generalist Practice
SW 5100 FDTNs of Generalist Pract I
SW 5101 Human Behav/Social Environ I
SW 5102 Social Welfare Policies
SW 5200 FDTNs of Generalist Pract II
SW 5201 Human Behav/Social Environ II
SW 5202 Fundamentals of Soc Work Resea
SW 5330 Crisis Response
SW 5430 Trauma-Informed Social Work
SW 5435 Assess. & Diag. Anx. Disorders
SW 5440 Advance Practice with Groups
SW 5500 Advan Generalist Seminar Bridg
SW 5630 Adv SW Prac in Behav Hlth I
SW 5640 Adv SW Prac in Behav Hlth II
SW 5730 Program Development & Evaluati
SW 5740 Community Organizing
SW 5830 Policy/Pract of School SW Educ
SW 5835 Diagn. & Asmt Mental Hlth/ Edu
SW 5840 Soc Work Interventions Educ Se
SW 5905 Special Topic in Social Work
SW 5950 Social Work Practicum I
SW 5951 Social Work Practicum II
SW 5996 Independent Study and Research
SW 6100 Adv Pract with Indv, Fam, Grps
SW 6101 Cultural Humility in SW Prac
SW 6102 Applied Social Work Research
SW 6200 Advanced Practice
SW 6202 Policy II: Advocacy and Change
SW 6330 Adv Clinical SW Mod Interven
SW 6950 Social Work Practicum III
SW 6951 Social Work Practicum IV
SW 6995 Apprentice College Teaching

Teaching and Learning Department

Teaching and Learning

The Department of Teaching and Learning in the School of Education and Human Services offers programs at the undergraduate and graduate levels designed to prepare students to become transformative educators who strive to meet the needs of all children. Specifically, DTL offers service learning courses in the Social Foundations of Education, as well as courses related to the Teaching of Art, Literacy, Mathematics, Modern Language, Science, and Social Studies. These courses support learning in teacher preparation programs, graduate certificate and endorsement programs, and graduate degrees at the master's and doctoral levels. The programs offered in DTL are rigorous, clinically rich and practice based, and share a core focus on teaching for social justice and equity.

Programs

Applied Behavior Analysis: Basic
Educational Leadership
Higher Education Leadership
Special Education
Elementary Education
Secondary Education
Reading and Language Arts
Literacy, Culture, and Language
Education: Educational Leadership
Reading, Language Arts and Literature
Central Office Administration

Higher Education
Integrated Science/Teaching in Secondary Education

Courses

AED 5200 Methods 1: Art Ed Teach & Lear
 AED 5300 M 2: Art Lit & Tech in Art Ed
 AED 5400 Methods 3: Art Ed Inq Approach
 AED 6200 M4: Build Community - Art Prac
 DLL 5035 Introduction to DLL
 DLL 5594 Introduction to DLL
 DLL 5595 Dig Lit/Learning Applications
 DLL 5900 Independent Study in DLL
 DLL 6030 Workshop Ed Software/Rel Techs
 DLL 6570 Online Teaching and Learning
 DLL 6579 Tech Supported Learning Design
 DLL 6586 Stand Assess Ldrship/Ed Tech
 DLL 6996 Educational Project in DLL
 DLL 7570 Video Data Analysis/Ed Resrch
 DLL 7928 Ind Investigations/Dig Literac
 EED 5000 Content for Teaching - Elem
 EED 5300 Elem Math Methods 1
 EED 5340 Elem Math Methods 2
 EED 5400 Elem Science Methods
 EED 5500 Elem Soc Studies Methods
 EED 5600 Foundations 1
 EED 5620 Foundations 2
 EED 6600 Foundations 3
 EED 6620 Foundations 4
 EED 6950 Internship in Elementary Ed
 EST 5105 Highly Effective Instructor
 EST 5115 Collaborative Practitioner
 EST 5120 Visual Culture/Theories Art Ed
 EST 5220 Teaching Art/Elementary School
 EST 5221 Teaching Art/Middle School
 EST 5240 Foreign Lang Tch Mthds/K-8
 EST 5241 Frgn Lng Tch Methods/7-12
 EST 5301 Soc Theories/Ed/Cross National
 EST 5302 Cross National Inv/Ed Systems
 EST 5303 Gender Socialization/Schools
 EST 5304 Sexual Orientation/Gend ID/ED
 EST 5308 Trends/Practices Mid Level Ed
 EST 5309 Middle Level Schools
 EST 5310 Crisis Interv Prvn Self Harm
 EST 5320 Teaching Art/Secondary Level
 EST 5321 The Art of Children's Books
 EST 5330 Diagnosis/Remediation Math
 EST 5331 Exploring Math/Sci Connections
 EST 5360 Outdoor/Environmental Ed
 EST 5361 Science and Children
 EST 5362 Tching Science/Young Children
 EST 5919 The International Experience
 EST 6000 Intro to Educational Studies
 EST 6100 Diverse Learners/Curriculum
 EST 6105 Action Research-Classroom
 EST 6115 Action Research-School
 EST 6118 Reflective Practitioner
 EST 6125 Ldrshp Professional Learning
 EST 6128 Collaborative Inquiry I
 EST 6200 Teachers and the Curriculum
 EST 6218 Collaborative Practitioner

EST 6228 Collaborative Inquiry II
 EST 6300 Advanced Instructional Design
 EST 6301 Soc Theories/Ed/Cross National
 EST 6302 Gender Socialization in School
 EST 6303 Metro Detroit Youth Studies
 EST 6304 Issues in Education
 EST 6305 Applied Theory/Tchr Ldrship I
 EST 6318 Inquiry to Practice I
 EST 6361 Beekeeping Across Curriculum
 EST 6500 Collaborative Action Research
 EST 6970 Spec Studies Tchr Dev/Ed Stds
 EST 7008 Thry/Practice Adult Lrng/Devel
 IB 6700 IB: Philosophy and Practices I
 IB 6701 IB: Philosophy and Practice II
 IB 6702 IB: Intn'l/Global Education I
 IB 6703 IB: Intn'l/Global Education II
 IB 6704 IB: Teaching/Learning/Curric
 IB 6705 IB: Curric/Instruct in Classrm
 IB 6706 IB: Assessment/Support Lrng
 IB 6707 IB: Assessment in Classroom
 IB 6708 IB: Prof Lrng/Refl Pract/Rsch
 IB 6709 IB: Prof Lrng/Coll Action Res
 IB 6800 Intro IB Princ Pract & Curr
 IB 6801 Ldrs IB Schls/Theory to Pract
 IB 6970 Indep Study/Int'l Bacc Edu
 RDG 5200 Early Literacies
 RDG 5202 Rdg/LArts in Elem/Mid Schl I
 RDG 5203 Rdg/LArts in Elem/Mid Schl II
 RDG 5210 Inquiry-Based Literacy Instruct
 RDG 5240 Advanced Literacies
 RDG 5439 Clinc Issues Erly Lit Instr/RR
 RDG 5449 Lit Lessons Teacher Training
 RDG 5459 Lit Support Teacher Training
 RDG 5520 Foundation Rdg Instruct
 RDG 5530 Author/Illust Art/Craft
 RDG 5531 Found Lit Child/Yng Adults
 RDG 5533 Literature: Middle/Senior Schls
 RDG 5534 Literature for the Young Child
 RDG 5537 Storytelling & Creative Dramat
 RDG 5542 Tch Writg Elem/Sec Schools
 RDG 5544 Poetry: Reading and Writing
 RDG 5545 Narrative Reading/Writing
 RDG 5546 Non-Fiction Rdg/Writing
 RDG 5557 Content Rdg in the Elem School
 RDG 5558 Disciplinary Literacies
 RDG 5634 Rdg-Lang Arts Inst Elem Ed
 RDG 5640 Leadership Literacy Instruct
 RDG 5660 Emerging Lit/Early Rdg/Writing
 RDG 5661 Phonics in Proper Perspective
 RDG 5664 Teaching Rdg in Primary Grades
 RDG 5970 Ind Study Rdg/Lang Arts
 RDG 6439 Clinical Issues: Rdg Recovery
 RDG 6449 Lit/Theory/Research/Tchr Leadr
 RDG 6563 Read/Writing Connection
 RDG 6664 Teacher as Researcher
 RDG 6666 ESL: Lit for Second Lang Learn

RDG 6940 Problems Reading Instruc
RDG 6962 Literacy Assessment
RDG 6963 Assessment-Based Literacy Inst
RDG 6971 Teaching Appren:Rdg/Lang Arts
RDG 6987 Seminar in Reading
RDG 6996 Master's Practicum
RDG 7106 Critical Inquiry
RDG 7110 Educational Research
RDG 7204 Perspectives in Lit in LCL
RDG 7205 Perspectives in Writing
RDG 7220 Resrch Dsg/Methods I
RDG 7225 Resrch/Dsg Methods II
RDG 7307 Theor Modes & Historic Perspec
RDG 7403 Adv Diagnostc/Correct Rdg
RDG 7408 Psychology of Reading
RDG 7430 Advanced Qualitative Research
RDG 7435 Advanced Quantitative Research
RDG 7928 Ind Investgn Rdg/Lang
RDG 7949 Doctoral Seminar LCL
RDG 7970 Independent Study
RDG 7995 Research Practicum
RDG 7999 Dissertation Research
RDG 9010 Research Methodology
RDG 9020 Analytical Methods
RDG 9940 Doctoral Prof Seminar I
RDG 9941 Doctoral Prof Seminar II
SED 5000 Foundations 1
SED 5100 Teaching for Diversity, Equity
SED 5110 Instruction 1
SED 5150 How People Learn
SED 5210 Instruction 2: Methods in Disc
SED 5600 Foundations 2
SED 5650 Foundations 3
SED 5955 Student Teaching Internship
SED 6000 Instruction 3: Adv Instruction
TD 5000 Intro to School/Society
TD 5001 Instruct Design/Assessment
TD 5100 Lrng Thry: Cog/Affec Dev/Adol
TD 5103 Mng Classrm Env/Diverse Lrnrs
TD 5104 Mngng Sec Clsrm Edu Equity
TD 5180 Health Curric/Elem-Middle Lvl
TD 5181 Tchng Fitness Wellbng Elem Mdl
TD 5220 Integrating Arts/Elem Clssrm
TD 5260 Tchng Elem/Middle Science
TD 5270 Teaching Social Studies
TD 5309 Adv Interact Lab/Teach Devel
TD 5320 Math Ped/Curr in Elem/Middle
TD 5949 Internship Seminar
TD 5950 Internship in Elementary Ed
TD 5955 Internship/Secondary Ed

Theatre Department

Theatre

Writing and Rhetoric Department

Writing and Rhetoric

Courses

WRT 5140 Teaching Writing

WRT 5150 Meadow Brook Writing Project

WRT 5160 Teaching Writing/New Media

WRT 5900 Topics in Writing and Rhetoric

Young Honors College Department

Young Honors College

All Programs

Supply Chain Analytics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Supply Chain Analytics	Major

Program Type

GR Certificate

College/School

School of Business Admin.

Department(s)

Decision & Info Sciences

Credit Total

15

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))
(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull
238B Elliott Hall
(248) 370-3277
trumbull@oakland.edu

Program Description

The Graduate Certificate in Supply Chain Analytics at Oakland University equips students with integrated expertise in supply chain management and business analytics to address the growing demand for data-driven decision-making. As global supply chains become more complex and data-intensive, organizations need professionals who can apply analytical tools to optimize procurement, logistics, inventory, and production while managing risks.

This program offers a focused, practice-oriented curriculum combining key topics in supply chain management and analytics. It is designed for working professionals seeking to upskill or transition into analytics-focused roles. Flexible delivery formats, including online and in-person options support both local and global learners.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Analytics program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

PersonalComputer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuation education course in PC skills as a prerequisite to the program.

Foundation Courses

Students are expected to have some background in operations management and statistics through one or more courses in their undergraduate degree. Students lacking this knowledge will be required to take the foundation courses. The foundation courses do not count towards the certificate. The foundation courses will be waived for applicants with adequate preparation in Operations Management and Statistics.

Statistics Background

- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers** (3 credits)

Operations Management Background

- **POM5210 Operations Management Operations Management** (3 credits)

Certificate Requirements

The Graduate Certificate in Business Analytics is awarded upon satisfactory completion of 15 graduate-level credits in an approved program of study.

Course Requirements (12 credits)

Required:

- **POM5420 Supply Chain Management** (3 credits)
- **MIS5460 Business Analytics Business Analytics** (3 credits)
- **POM5440 Supply Chain Logistics: Strategy, Analytics and Optimization** (3 credits)
- **POM5490 Advanced Topics in Supply Chain Management** (3 credits)

Electives (3 credits)

Choose one from the following approved elective courses:

- **POM5410 Operations Analytics Operations Analytics** (3 credits)
- **POM6900 ST: Procurement and Global Sourcing** (3 credits)
- **POM6430 Operations Planning & Control Operations Planning and Control** (3 credits)
- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics** (3 credits)
- **MIS5560 Intro to Data Science Introduction to Data Science** (3 credits)
- **QMM6400 Management Science Management Science** (3 credits)
- **QMM5520 Forecasting Forecasting** (3 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework or fail to achieve minimum standards for grade point average and completion of classes may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Special Education K12

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MAT	Special Education K12	Major

Program Type

Master

College/School

School of Ed. and Human Svcs.

Department(s)

Human Developmnt/Child Studies

Credit Total

47

Delivery Method Required

Partially Online , Fully
Online

**Summer
Semesters**
0

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))

teach@oakland.edu

www.oakland.edu/teach

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

<https://www.oakland.edu/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Academic Advising

SEHS Advising

363 Pawley Hall

(248) 370-4182

matinfo@oakland.edu

Program description

Oakland University's Master of Arts in Special Education K-12 program is designed for individuals who hold a bachelor's degree in another field and are now seeking a career in teaching special education. The MAT in Special Education K-12 program is a 2-year teacher certification program that will prepare individuals for a career in teaching in grades K-12. The program combines teacher education coursework, three field placements in local schools, and a semester long (15-week) student teaching internship. Students have the option to complete the Emotional Impairment (EI) or the Specific Learning Disabilities (SLD) concentration.

Program Delivery

Courses are taken as a cohort with coursework beginning in the summer semester. First semester courses will be held in a hybrid format. All in person components will be held on OU's main campus no more than two weekday evenings per week. After the first semester, all coursework will be online. In addition to coursework, students are required to complete 100 hours of field experiences prior to student teaching. During the field placements, students will actively engage in the classroom, observe instruction and classroom management, work with small groups of students, and implement lessons. Field placements are arranged to afford students depth, breadth, and diversity of authentic learning experiences in schools where they can apply what they are learning in a real classroom.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- January 1 (early), March 1 (regular), April 1 (late) for the summer semester. Late applications will be reviewed if there is room in the program.
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines. If you have questions, contact the program coordinator.

1. **Graduate Application Requirements**
2. **Additional department application requirements**

Goal Statement

Resume Curriculum Vitae

Felony Misdemeanor Disclosure Form

Official transcript will be required demonstrating: a cumulative grade point average of 3.0 or better (improved grades in recent coursework will be considered).

Master of Arts in Teaching Graduate School Application
Acknowledgement form

Individual interviews may be conducted in addition to these requirements

Requirements and Recommendations

The two online recommendations must be from individuals in a supervisory relationship to the applicant.

- **Graduate students admitted at another institution** (Transferring to Oak land University)
- **Graduate students admitted at OU** (Transferring to a new program)

Degree Requirements

The MAT in Special Education K-12 degree is awarded upon satisfactory completion of a minimum of 47 credits in an approved program of study.

Course Requirements (47 credits)

The course sequence is subject to minor changes depending on instructor availability. The Internship in Secondary Education (student teaching semester) must be done during the school year.

Professional Education Courses (19 credits)

Required courses:

- **TD5000 Intro to School/Society** Introduction to the School and Society (2 credits)
- **TD5100 Lrng Thry: Cog/Affec Dev/Adol** Learning Theory: Cognitive and Affective Development of Adolescents (3 credits)
- **DLL6030 Workshop Ed Software/Rel Techs** Workshop in Educational Software and Related Technologies (2 to 4 credits)
- **TD5949 Internship Seminar** Internship Seminar (4 total credits) - 2 credits Fall and 2 credits Winter
- **TD5955 Internship/Secondary Ed** Internship in Secondary Education (2 credits) (6 total credits Winter)

Special Education Core (16 credits)

Required courses:

- **SE6502 Legal Issues in Spec Educ** Legal Issues in Special Education (4 credits)
- **SE6524 Assessment in Special Educatn** Assessment in Special Education (4 credits)
- **SE6517 Lang and Except Child & Youth** Language and Exceptional Children and Youth (4 credits)
- **SE6518 Org Mgt of Instruct Behav/Env** Organization and Management of Instructional Behaviors and Environments (4 credits)

Concentration Options (choose one):

Emotional Impairment (12-credits)

- **SE6510 Students w/Behavior and/or EI** Students with Behavioral and/or Emotional Impairment (4 credits)
- **SE6520 Ed Procedures for Students/EI** Educational Procedures for Students with Emotional Impairment (4 credits)

- **SE6620 Adv Intervention Resources/EI** Advanced Interventions and Resources for Students with Emotional Impairment (4 credits)

OR

Specific Learning Disabilities (12-credits)

- **RDG5210 Inquiry-Based Literacy Instruc** Inquiry-Based Literacy Instruction (4 credits)
- **SE6532 Intro/Specific Learning Disab** Introduction to Specific Learning Disability (4 credits)
- **SE6533 Adv Ed Proc/Students with SLD** Advanced Educational Procedures for Students with a Specific Learning Disability (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

Holding a Graduate Assistantship
Receiving a fellowship or scholarship
Advancing to candidacy for a graduate degree
Going on a leave of absence
Obtaining a graduate certificate or degree from Oakland University
Advancing to candidacy for a graduate degree
Going on a leave of absence
Obtaining a graduate certificate or degree from Oakland University
Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.
Graduate Students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Michigan Teacher Certification

To be recommended for a Michigan Teaching Certificate at the K-12 grade bands MAT Special Education students must successfully complete requirements for the MAT Special Education K-12 degree, earn a minimum grade of B in TD 5955, and successfully pass the required Professional Knowledge and Skills MTTC exam and the appropriate Special Education MTTC exam. Successful completion of our program and internship does not guarantee certification by the State of Michigan. See more information about teacher certification at: SHEH Advising.

SLD Concentration: **MTTC Learning Disabilities Test #114**

EI Concentration: **MTTC Emotional Impairment Test #116**

Professional Knowledge and Skills Test (one of the following)

- MTTC Professional Knowledge and Skills Test for grades PK-3 Test #117
- MTTC Professional Knowledge and Skills Test for grades 3-6 Test #121
- MTTC Professional Knowledge and Skills Test for grades 5-9 Test #135
- MTTC Professional Knowledge and Skills Test for grades 7-12 Test #136

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Nurse Anesthesia

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	DNP	Nurse Anesthesia	Major

Program Type

Doctorate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

87

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-8733 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Linda McDonald, DNAP, CRNA
3020 Human Health Building
(248) 364-8715
lamcdonald@oakland.edu

Accreditation

COA Accreditation

On October 12, 2022, the Oakland University-Beaumont Graduate Program of Nurse Anesthesia was granted full accreditation by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA). The program's next review by the COA is scheduled for Fall, 2032.

Visit the website <http://coacrna.org> or contact the COA directly at 847-655-1160 or via 222 S. Prospect Ave. Park Ridge, Illinois 60068-4001.

Program Description

The Oakland University-Beaumont Graduate Program of Nurse Anesthesia is a collaborative initiative between Oakland University and the nationally renowned Corewell Health System. Working in concert, both institutions are able to provide an exceptional educational environment for educating Student Registered Nurse

Anesthetists. The DNP: Nurse Anesthesia program prepares advanced practice nurses (APRNs) with a specialization in nurse anesthesia. The curriculum is an integration of DNP, APRN, and nurse anesthesia specialty courses. In cognate courses, students study advanced physiology, pathophysiology, pharmacology, and gross anatomical dissection. Clinical internships provide the opportunity for students to apply theory to practice, gain experience in all specialty areas, and to become experts capable of providing anesthesia care to patients across the lifespan at all levels of acuity, undergoing procedures of varying complexity. Graduates are prepared in the translation of research and other evidence into clinical practice, measurement of patient outcomes, and transformation of health care systems to ensure quality and safety. The DNP is capable of addressing the critical leadership skills needed to translate evidence-based care into practice, change systems of care, and measure outcomes of groups of patients, populations, and communities.

The DNP-prepared graduate is prepared to take the certification examination offered by the National Board of Certification and Recertification of Nurse Anesthetists leading to the designation Certified Registered Nurse Anesthetists (CRNA).

Program Delivery

The DNP: Nurse Anesthesia program is delivered in hybrid format, which includes face-to-face (in-person) and online courses. Courses that are offered online may include synchronous and in-person activities. Courses offered in-person often include a distance-learning format.

DNP: Nurse Anesthesia Program Objectives

Building on the Bachelor of Science in Nursing foundation, the BSN to DNP: Nurse Anesthesia program will prepare the student for the highest level of clinical nursing practice. The DNP graduate will:

1. Leads the application, integration, and translation of established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Lead the design, delivery, coordination, management, and evaluation of comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Collaborates with public health, healthcare systems, community, academic community, governmental, and other entities to lead programs that promote health and disease prevention to improve equitable population health outcomes.
4. Generate, appraise, synthesize, translate, integrate, and disseminate knowledge to improve person-centered health and transform health care.
5. Lead the application and evaluation of established and emerging principles of translational and improvement science methodologies to enhance quality and minimize risk of harm for providers, patients, populations, and systems.
6. Lead interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Lead organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes, and to provide safe, high-quality, and equitable care to diverse populations.
8. Employ data analytic methods, information systems, and technology to evaluate, integrate, and translate data to form information and drive decision-making, and improve programs, outcomes, and standards of care within healthcare systems.
9. Model and promote a professional identity within a nursing specialty that is accountable, collaborative, and reflects nursing's disposition, comportment, perspective, and values.
10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity at the micro, meso, and/or macro levels.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applications submitted by both deadlines will be considered for Fall 2025 admission. Applicants will only interview once per year. The application deadlines are:

- Early application deadline: July 15, 2026
- Standard application deadline: December 15, 2026
- **International application deadline:** May 1, 2026 (see additional requirements below)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

Application Requirements:

- BSN from an institution accredited by the Accreditation Commission for Education in Nursing or the Commission on Collegiate Nursing Education
- Undergraduate cumulative Nursing GPA must be a 3.0 or above (on a 4.0 scale).
- Undergraduate science GPA must be a 3.0 or above (on a 4.0 scale).

- Undergraduate required science courses:
 1. Anatomy and physiology- 3 credits each course or 5 credits for combined course
 2. Pharmacology- 3 credits
 3. Biochemistry OR Organic chemistry-3 credits
- A minimum of 1 year of Intensive Care experience at the time of application. Applicants must currently be working in an Intensive Care Unit.
- Current unrestricted Registered Nurse license. Michigan license is required at the start of the program.
- Two satisfactory letters of recommendation are required. One must be a current nurse manager or someone who serves in a legitimate supervisory role.
- BLS, ACLS, PALS, and CCRN certification at the time of application
- **International Students**
 1. International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses applicants' potential for success in the program by examining their undergraduate records, professional statements, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Qualified applicants will be selected to attend an interview and complete a brief evaluation of their critical care nursing knowledge and skills

Degree Requirements

The Doctor of Nursing Practice: Nurse Anesthesia degree program is awarded upon satisfactory completion of 87 credits in an approved plan of study. The program of study commences in the fall and allows full-time students to complete the requirements in 36 months.

Extensive time is required in the clinical setting, beginning gradually toward the end of the second term and culminating in 32 or more hours per week during the final internships. The accrediting body requires a minimum of 700 cases across all specialty areas and 2000 clinical hours.

Course Requirements

After acceptance and prior to starting the program, students are required to provide evidence of successful completion of a graduate-level statistics course. Students may take **NRS5302 Statistics in Adv NRS Practice - Statistics in Advanced Nursing Practice (3 credits)** to satisfy this requirement. Prior to taking a graduate-level statistics course other than NRS 5302, students must

contact the advising office and supply information needed to determine course equivalency. Equivalency will be reviewed and approved by the DNP-NA program director.

Foundation Courses (15 credits)

- **NRS8211 Advanced Nursing Theory Advanced Nursing Theory (3 credits)**
- **NRS8221 Health System Policy Health System Policy (3 credits)**
- **NRS8231 Organizational/Systems Ldrship Organizational and Systems Leadership (3 credits)**
- **NRS8241 Nrs/Hlthcare Informatics Ldrsh Nursing and Healthcare Informatics Leadership (3 credits)**
- **NRS8712 Theory & Translating Research Theory and Translating Research for Evidenced-based Practice (3 credits)**

Research (14 credits)

The purpose of the research sequence is to prepare DNP students to evaluate current evidence-based research and assist in the development of a scholarly project that implements best evidence into practice under the guidance of a DNP Project Chair. The project is a comprehensive, integrative experience that reflects a synthesis of program coursework, and mastery of expert practice knowledge in the translation of current research to improve nursing practice or healthcare outcomes for patients, families, populations, or systems. The Essentials of Doctoral Education for Advanced Nursing Practice, the DNP Project Handbook, and the policies of Oakland University Graduate School will be used as guides for what constitutes appropriate content and formatting for the final project.

The School of Nursing *Doctor of Nursing Practice Nurse Anesthesia Student Handbook* and *The Doctor of Nursing Practice Project Handbook* provide more specific information and policies related to the project.

- **NRS8671 Adv Scientific Methods for EBP Advanced Scientific Methods for Evidence Based Practice (3 credits)**
- **NRS8681 Clin Prevent/Population Health Clinical Prevention and Population Health (3 credits)**
- **NRS8998 DNP Final Project DNP Final Project (8 credits)**

Specialty courses (58 credits)

The specialty courses consist of didactic and clinical components that prepare students for advanced practice. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and during foundation and clinical core courses.

Anatomy, Physiology, Pathophysiology (9 credits)

- **BIO5101 Gross Anatomical Dissect Gross Anatomical Dissection (3 credits)**

- **BIO5600 Adv Physiology/Pathophysio I** Advanced Physiology and Pathophysiology I (3 credits)
- **BIO5602 Adv Physiology/Pathophysio II** Advanced Physiology and Pathophysiology II (3 credits)

Nurse Anesthesia Specialty (17 credits)

- **NRS6642 Biophysics and Chem for NA** Biophysics and Chemistry for Nurse Anesthesia (2 credits)
- **NRS6652 Nurse Anesthesia Practice I** Nurse Anesthesia Practice I (4 credits)
- **NRS6662 Nurse Anesthesia Practice II** Nurse Anesthesia Practice II (4 credits)
- **NRS6672 Nurse Anesthesia Practice III** Nurse Anesthesia Practice III (4 credits)
- **NRS6682 Reg Anesthesia and Pain Mgmt** Regional Anesthesia and Pain Management (3 credits)

Pharmacology (10 credits)

- **NRS7712 Adv Pharm for NA Prac I** Advanced Pharmacology for Nurse Anesthesia Practice I (4 credits)
- **NRS7722 Adv Pharm for NA Prac II** Advanced Pharmacology for Nurse Anesthesia Practice II (3 credits)
- **NRS7732 Adv Pharm for NA Prac III** Advanced Pharmacology for Nurse Anesthesia Practice III (3 credits)

Clinical Internships (12 credits)

- **NRS7715 NA Clinical Internship I** Nurse Anesthesia Clinical Internship I (1 credit)
- **NRS7725 NA Clinical Internship II** Nurse Anesthesia Clinical Internship II (1 credit)
- **NRS7735 NA Clinical Internship III** Nurse Anesthesia Clinical Internship III (1 credit)
- **NRS7745 NA Clinical Internship IV** Nurse Anesthesia Clinical Internship IV (1 credit)
- **NRS7755 NA Clinical Internship V** Nurse Anesthesia Clinical Internship V (2 credits)
- **NRS7765 NA Clinical Internship VI** Nurse Anesthesia Clinical Internship VI (2 credits)
- **NRS7775 NA Clinical Intnship VII** Nurse Anesthesia Clinical Internship VII (2 credits)
- **NRS7785 NA Clinical Intrnship VIII** Nurse Anesthesia Clinical Internship VIII (2 credits)

Advanced Health Assessment (3 credits)

- **NRS7611 Adv Hlth Assess for NA** Advanced Health Assessment for Nurse Anesthesiology (3 credit)

Seminars and Nurse Anesthesia Topics (7 credits)

- **NRS8504 Interpro Role Dev & Ethic NA** Interprofessional Role Development and Ethics for Nurse Anesthesia (2 credits)
- **NRS8722 Adv Prac Sem NA II: Adv Resp** Advanced Practice Seminar for Nurse Anesthesia: Advanced Concepts in Respiratory and Pain Physiology (1 credit)
- **NRS8732 Adv Conc Peri Cardiac Care** Advanced Practice Seminar for Nurse Anesthesia: Advanced Concepts in Perioperative Cardiac Care (1 credit)
- **NRS8742 Approaches to Healthcare Educa** Advanced Practice Seminar for Nurse Anesthesia: Approaches to Healthcare Education (1 credit)
- **NRS8762 Cumulative Review** Cumulative Review (2 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0), as well as a B (3.0) or above in all courses.

Good academic standing is a requirement for:

- Holding a graduate assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Program requirements: Students must follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, the **School of Nursing Graduate Student Handbook** outlines specific School of Nursing policies and procedures.

Students are expected to earn a grade of B (3.0) or above in each course in the DNP program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a satisfactory (S) grade. In courses graded Satisfactory Progress/Unsatisfactory Progress (SP/NP), students are expected to earn a satisfactory grade (SP). Students who are not making satisfactory progress (i.e., <3.0, U, NP) in the program may be placed on probation with conditions imposed for retention, or recommended for dismissal. Students are required to keep their health requirements current and must maintain an RN license that is current and free of any complaints or restrictions throughout the program. See the School of Nursing website for health requirements. Students are also required to meet the requirements of the healthcare facilities where they complete clinical placements.

Graduate students who are not in good standing in the School of Nursing for any reason are subject to probation and/or dismissal from further graduate study.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation or project is submitted to Oakland University Graduate School.

Students must submit a leave-of-absence form if extenuating circumstances require them to take time off. Failure to submit this form may result in a loss of admission status.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for International Students, and Federal Financial Aid Programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Related Program Information

Plan of Study

Nurse Anesthesia cohorts follow a specific course of study and do not meet with faculty advisers to formulate a plan of study. The plan of study will be presented to the student upon admission to the program.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. **A Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for requirements and policies stated in the **School of Nursing DNP Handbook**, the Oakland University-Beaumont Graduate Program of Nurse Anesthesia handbook, and in each course syllabus. Every student admitted to the DNP-NA program is assigned both an **academic adviser** and a faculty adviser who has teaching responsibilities in the graduate program. These advisers are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Note: Nurse Anesthesia students will work directly with the Nurse Anesthesia faculty for all clinical and didactic concerns.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Nursing Practice

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	DNP	Nursing Practice Major	

Program Type

Doctorate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

38

Delivery Method Required

Fully Online

Summer Semesters

2

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))

(248) 370-8733 • Fax (248) 364-8740

www.oakland.edu/nursing

Program Coordinator:

Carrie Buch

3010 Human Health Building

(248) 364-8716

buch@oakland.edu

Program Description

The Doctor of Nursing Practice (DNP) is the terminal degree for nurses in clinical practice. This 38-credit, post-master's program is intended to prepare nurse leaders at the highest level of nursing practice to improve patient outcomes and translate research into practice (American College of Nursing).

Registered nurses who possess a DNP degree are prepared to assume clinical and leadership roles in clinical practice settings. Knowledge acquisition in the DNP program includes the ability to analyze organizational and clinical systems, critique evidence to support clinical practice and improve patient outcomes, and develop practice guidelines to enhance patient safety.

Program Delivery

The DNP program is a fully online program. As such, all courses in the plan of study are delivered online; however, courses may require online synchronous and/or distance-learning activities.

Doctor of Nursing Practice Program Outcomes

At the end of the DNP program, the graduate will be able to:

1. Integrate scientific and theoretical knowledge from nursing and other disciplines to develop, identify, evaluate, and disseminate best practices to improve health care and health care systems.
2. Lead organizations and systems to enhance quality and safety to improve patient, population, and organizational outcomes.
3. Employ data analytic methods, information systems, and technology to evaluate, integrate, and translate evidence to improve programs of care, outcomes of care and care systems.
4. Lead and influence health policy to reduce health disparities, encourage cultural sensitivity and promote access to quality care while advocating for social justice and equity at the system, state, national, and international levels.
5. Use models of interprofessional collaboration to enhance patient and population health outcomes.
6. Provide the highest level of ethical, patient-family-centered care as a scholar in nursing specialty practice.

Admission Terms and Application Deadlines

Applicants are admitted for the fall semester only. Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the semester deadlines listed below.

- August 15 for admission to the fall semester
- **International students:** May 1 for admission to the fall semester (see additional requirements below)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and any additional department requirements by the published application deadlines:

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

Additional department application requirements submitted through NursingCAS

- Applicants will be considered with a graduate cumulative grade point average of B (3.0) or above. Must submit an official transcript with master's degree posted.
- Proof of Practicum Experience
- DNP applicants must provide evidence of the number of clinical practicum hours they completed in their master's educational programs. Students may receive credit for up to 640 clock hours of practicum accrued in their master's

program (you may not count unsupervised post-graduate clinical practice). Clinical practicum hours are assessed individually for each applicant.

- DNP applicants must complete and submit (through NursingCAS) the Supplemental Application-Doctor of Nursing Practice Program form to provide Validation of Supervised Clinical Practicum Hours.
- Copy of unrestricted license to practice as a Registered Nurse in the United States or its territories
- Two letters of recommendation. Letters of recommendation must be from professionals and must include at least one from a nursing colleague in an advanced practice role familiar with the applicant.
- Written professional statement of 500 to 1,000 words. The professional statement should focus on the applicant's professional experiences as a nurse in an advanced practice role, how the DNP will enhance the applicant's professional development, and the applicant's career goals following completion of the program. The professional statement will be evaluated in several areas, including content and appropriate use of grammar, spelling, punctuation, etc. The professional statement should be prepared in size 12 Times New Roman font.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate and graduate records, professional statement, letters of recommendation, telephone/virtual interview, and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with member(s) of the School of Nursing faculty. The interview will be scheduled after all application materials have been submitted and verified.

Degree Requirements

The Doctor of Nursing Practice (Post-Master's) degree program is awarded upon satisfactory completion of 38 credits in an approved plan of study. The program of study commences in the Fall semester and allows full-time students to complete the requirements over 2 years or 6 consecutive semesters.

All Post-Master's DNP students are required to complete a minimum of 1,000 practice hours. Applicants who have a Master's Degree in a clinical area of Advanced Practice Nursing may receive credit for up to 640 clock hours of practicum accrued in their master's program.

For those students with a MSN who enter without the APRN or Clinical Nurse Leader (CNL), completion of all 1,000 hours with a leadership focus is required

Course Requirements

a. Foundation Courses (15 credits)

- **NRS8211 Advanced Nursing Theory Advanced Nursing Theory (3 credits)**
- **NRS8221 Health System Policy Health System Policy (3 credits)**
- **NRS8231 Organizational/Systems Ldrship Organizational and Systems Leadership (3 credits)**
- **NRS8241 Nrs/Hlthcare Informatics Ldrsh Nursing and Healthcare Informatics Leadership (3 credits)**
- **NRS8712 Theory & Translating Research Theory and Translating Research for Evidenced-based Practice (3 credits)**

b. Specialty Courses (6 credits)

- **NRS8382 Health Care Economics Health Care Economics (3 credits)**
- **Elective (3-4 Credits)**
- The student is required to identify a 3-4 credit elective that supports his/her area of interest. The elective must be a 5000 level graduate course or higher and must be approved by the DNP program coordinator or the graduate program director.

Post-master's credits that are not part of a post-master's degree or graduate certificate will be reviewed individually according to Oakland University graduate policy. Students will be required to submit a report showing how the AACN DNP Essentials were met during any proposed courses in order to be eligible to reduce the required credits in this area.

c. Research (17 credits)

The purpose of the research sequence is to prepare DNP students to evaluate current research, develop a research proposal, carry out the research process, and prepare a final report that represents the outcomes of the research effort. The American Association of Colleges of Nursing, *The Essentials of Doctoral Education for Advanced Nursing Practice* (2006) and the policies of Oakland University Graduate School will be used as guides for what constitutes appropriate formatting for the final project.

The Doctor of Nursing Practice Project Handbook provides more specific information and policies related to the project.

- **NRS5302 Statistics in Adv NRS Practice Statistics in Advanced Nursing Practice (3 credits)**

- **NRS8671 Adv Scientific Methods for EBP Advanced Scientific Methods for Evidence Based Practice (3 credits)**
- **NRS8681 Clin Prevent/Population Health Clinical Prevention and Population Health (3 credits)**
- **NRS8998 DNP Final Project DNP Final Project (8 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program.

To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of (B) 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

School of Nursing requirements: Students are required to follow university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the School of Nursing Doctor of Nursing Practice Student Handbook.

Students are expected to earn a grade of B (3.0) or above in each course in the DNP program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. In courses graded Satisfactory Progress/Unsatisfactory Progress (SP/NP), students are expected to earn a course grade of satisfactory progress.

Students who are not making satisfactory progress (i.e., <3.0, U, NP) in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Graduate students who are not in good standing in the School of Nursing for any reason are subject to probation and/or dismissal from further graduate study.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation or project is submitted to Oakland University Graduate School.

Students are required to submit a leave of absence form if extenuating circumstances arise where the student has to take a semester off. Failure to submit this form may result in a loss of admission status.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the Post-masters DNP program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be signed by the program coordinator and student.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for requirements and policies stated in the *School of Nursing Doctor of Nursing Practice Student Handbook* and each course syllabus. Every student admitted to the DNP program is assigned to an academic adviser and program coordinator who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Physical Therapy

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	DPT	Physical Therapy Major	

Program Type

DPT

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

112

Delivery Method Required

In Person

Summer
Semesters

3

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs/pt

Director:

Sara Arena, Professor

arena@oakland.edu

Program Description

The Doctor of Physical Therapy (DPT) is a professional graduate program which prepares individuals for licensure and entry into the physical therapy profession. As a graduate program, it includes theoretical, clinical practice, and research courses and experiences to prepare graduates to function in a variety of settings in physical therapy.

Physical therapy is concerned with the prevention and treatment of acute and chronic conditions that cause disorders of movement. In order to provide appropriate treatment, physical therapists evaluate the musculoskeletal, neuromuscular, cardiopulmonary, and associated systems, calling on the basic sciences and behavioral sciences in the interpretation of this evaluation. Patient programs are then developed to resolve movement dysfunctions. Physical therapists work in concert with all members of the health care team through a variety of referral relationships.

The Doctor of Physical Therapy at Oakland University is designed to prepare clinicians with the evaluation and examination skills necessary to make physical therapy differential diagnoses of movement related impairments affecting the neuromusculoskeletal system. In addition, this degree will prepare graduates to provide

effective care in the areas of prevention, screening, rehabilitation and community reintegration for their clients. Finally, graduates will be able to interpret and conduct research related to physical therapy.

Accreditation

The Physical Therapy Program at Oakland University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; Telephone: 703-706-3245; Email: accreditation@apta.org; Web site: <http://www.capteonline.org>. The program is accredited through 2031.

Admission Terms and Application Deadlines

Oakland University uses an admissions process with two decision points, beginning with an early assurance option for qualified applicants.

Early Assurance Option: If an applicant submits a fully completed application to the **Physical Therapy Centralized Application System** (PTCAS) by August 15th (unless that day falls on a weekend or federal holiday, in which case it is the following business day), and meets the following criteria, they will receive an early assurance decision response by mid to late September. This is a non-binding decision.

- Overall GPA: at least 3.5
- S/M GPA: at least 3.4
- Verbal GRE: 148 or greater
- Quantitative GRE: 148 or greater
- Check Early Assurance Review box

Regular Admissions Option: All applications must be completed and electronically submitted to PTCAS by October 15 (or the next business day if the deadline falls on a weekend or federal holiday) for admission in the following fall semester. Verified applications are reviewed on a rolling basis, and applicants who meet program eligibility requirements will receive an admissions decision no later than December 31st.

Late applications will not be reviewed. The DPT program accepts approximately 36 students each year and the program begins in the fall.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements by the published application deadlines:

Graduate Application Requirements

- A completed application must be submitted through the PTCAS. Information and instructions for applying through the PTCAS can be found at the [PTCAS website](#).
Applicants do not submit an Oakland University Graduate Application.
- Arrange for PTCAS to receive an official transcript from each college and university you have attended in the United States and Canada. Applicants who are admitted to the Doctor of Physical Therapy program must also submit official transcripts to Oakland University Graduate

Admissions upon enrollment. Official transcripts must provide evidence of an earned baccalaureate degree from an accredited U.S. institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.

- Complete two reference letters and submit through the [PTCAS website](#). This satisfies the university requirement for recommendation forms.
- Applicants must take the Graduate Record Exam (GRE) and arrange for their official GRE scores to be submitted to PTCAS by the application deadline. It is recommended that official GRE scores be submitted by the end of July for an early assurance decision or the end of September for regular decision. The PTCAS OU GRE code is 0650. Further information can be found at the [PTCAS website](#).
- Applicants must satisfy the essay requirements through the [PTCAS website](#).
- Applicants must review and confirm their understanding of the *Essential Functions for Physical Therapy* which can be found on the the OU PTCAS application or the [DPT website](#).
- It is recommended that applicants observe physical therapists in several different settings and document the observations on the PTCAS application. There is no minimum number of required observation hours, and documentation of hours by a physical therapist is not required. Further information can be found at the [PTCAS website](#).
- International university transcripts must be evaluated by a professional credential evaluation service. Oakland University will only accept transcript evaluations completed by a NACES (National Association of Credential Evaluation service) member organization. Many applicants use World Educational Services (WES) or Educational Credential Evaluators (ECE). NACES membership can be confirmed by visiting www.naces.org/members.htm. Graduate programs requiring more detailed information may require an applicant to submit a course-by-course (or detailed) evaluation report rather than the general evaluation report. Official foreign transcripts will not be required by Oakland University since official transcripts must be submitted to and verified by the evaluation service. However, applicants must submit photocopies of their foreign transcripts with their application materials.
- International applicants must submit proof of English language proficiency to PTCAS and Oakland University.
- **International supplemental application and supporting documentation** must be submitted to Oakland University before international applicants can be issued the Certification of Eligibility (I-20). This certificate is required to apply for a student visa from the U.S. embassy or consulate.

- A minimum grade of a C or greater is required for fulfillment of all prerequisite courses. Applicants must have achieved a minimum overall grade point average of 3.0, an overall science and math GPA of a 2.7, and an overall prerequisite GPA of a 3.0. Please see the PTCAS Program page for additional information. Transcripts will be reviewed to verify the grades.

Applicants who qualify for admission with limited standing must satisfy the requirements by the deadlines specified in their graduate admission letter to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Doctor of Physical Therapy program may contact the DPT Admissions Coordinator at dptadmissions@oakland.edu to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Program Prerequisites

Applicants will be considered for admission, if they will be completing their baccalaureate degree and all prerequisite courses with a minimum of a C (2.0) grade prior to the start of the program. Applicants must have completed a bachelor's degree from a regionally accredited institution prior to enrolling in the Doctor of Physical Therapy program. Advanced placement courses, in the subjects below, that have been accepted for credit at a university may meet the prerequisite requirements. Prerequisite courses should be completed within 10 years of applying; courses older than 10 years are reviewed case-by-case basis.

Prerequisite Course	Number of Courses	Lab Requirements
Introductory Biology	1	One lab is required in the biological sciences, and it may be taken in any of the following prerequisite courses: biology, human anatomy or physiology
Anatomy	1	Combined human anatomy and physiology course accepted; however, must take two semesters or be a minimum of 6 credits
Physiology	1	Combined human anatomy and physiology course accepted; however, must take two semesters or be a minimum of 6 credits
Chemistry I and II	2	Two-course sequence in general chemistry (I and II) OR a sequence of chemistry I and organic chemistry OR chemistry I and biochemistry is required. A lab is required for one semester only which may be a separate course or integrated into the lecture course.
Physics I and II	2	Two-course sequence in general physics is required. A lab is required for one semester only which may be a separate course or integrated not the lecture course.
Exercise Physiology	1	
Introductory Statistics	1	
Introductory Psychology	1	
Developmental Psychology	1	Child or lifespan psychology courses may be used to fulfill this prerequisite.

Math	1	One course is required. One semester of precalculus, one semester of college algebra, or one semester of analytical trigonometry. AP credit or placement into calculus is accepted.

Degree Requirements

The Doctor of Physical Therapy degree is awarded upon satisfactory completion of 112 credits in an approved program of study.

Course Requirements

Core requirements (112 credits)

A minimum of 112 credits are required for the degree, consisting of the following courses:

- **PT6511 Professional Issues I** Professional Issues I (2 credits)
- **PT6517 Functional Anatomy** Functional Anatomy (3 credits)
- **PT6519 Clinical Medicine** Clinical Medicine (4 credits)
- **PT6615 Gross Human Anatomy for PT** Gross Human Anatomy for PT (3 credits)
- **PT6740 Movement Science I** Movement Science I (Biomechanics) (3 credits)
- **PT6751 Clinical Exam & Evaluation I** Clinical Examination and Evaluation I (4 credits)
- **PT6756 Patient Management** Patient Management (3 credits)
- **PT6816 Neuroanatomy for PT** Neuroanatomy for PT (3 credits)
- **PT6980 Evidence-Informed Practice** Foundations of Evidence-Informed Clinical Practice (4 credits)
- **PT7140 Pharmacology/Physical Therapy** Pharmacology for Physical Therapy (2 credits)
- **PT7151 Clinical Ed Experience I** Full-time Clinical Education Experience (3 credits)
- **PT7271 Lifespan Development I** Lifespan Development (3 credits)
- **PT7340 Psychosocial Asp/Patient Mgt** Psychosocial Aspects of Patient Management (3 credits)
- **PT7410 Clinical Neuro Exam and Eval** Clinical Neurological Exam and Evaluation (4 credits)
- **PT7411 Educational Interventions PT** Educational Interventions PT (2 credits)
- **PT7421 Neuromuscular Interventions I** Neuromuscular Interventions I (3 credits)
- **PT7510 Modalities** Modalities and Electrotherapeutic Interventions (3 credits)
- **PT7520 Fnds Therapeutic Exs Interve** Foundations of Therapeutic Exercise Interventions (3 credits)
- **PT7522 Clinical Exam & Evaluation II** Clinical Examination and Evaluation II (3 credits)
- **PT7532 Advanced Exercise Intervention** Advanced Therapeutic Exercise Interventions (3 credits)
- **PT7550 Cardiopulm Exam/Intervention** Cardiopulmonary Examination and Interventions (3 credits)
- **PT7600 Prosthetics and Orthotics** Prosthetics and Orthotics (2 credits)
- **PT7611 Fnd Musculoskeletal Diagnosis** Foundations of Musculoskeletal Diagnosis and Interventions (3 credits)
- **PT7652 Clinical Ed Experience II** Intermediate full-time Clinical Education Experience (4 credits)
- **PT7653 Clinical Education III** Full-time Clinical Education Experience III (2 credits)
- **PT7850 Imaging for Physical Therapist** Imaging for Physical Therapists (1 credit)
- **PT8280 Pediatric Exam & Interventions** Pediatric Examination and Interventions (4 credits)
- **PT8282 Lifespan Development II** Lifespan Development II (3 credits)
- **PT8300 Administration & Practice Mgt** Administration and Practice Management in PT (3 credits)
- **PT8322 Professional Issues II** Professional Issues II (3 credits)
- **PT8355 Health Promotion and Wellness** Health Promotion and Wellness in Physical Therapy (4 credits)
- **PT8432 Neuromuscular Interventions II** Neuromuscular Interventions II (3 credits)
- **PT8510 Diff Diagnosis/Screening Refl** Differential Diagnosis: Screening for Referral (4 credits)
- **PT8543 PT approaches to Med-Surg** PT approaches to Med-Surg (3 credits)
- **PT8610 Arthrology** Arthrology (1 credit)
- **PT8622 Advanced Musculoskeletal** Advanced Musculoskeletal Diagnosis and Interventions (3 credits)
- **PT8700 Capstone Exam in PT** Capstone Examination in Physical Therapy (1 credit)
- **PT8960 DPT Research Practicum** DPT Research Practicum (3 credits)
- **PT8974 Clinical Education IV** Terminal Full-time Clinical Education Experience 4

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester. Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state, and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program.

Doctor of Physical Therapy requirements:

Student progress policy

Good standing in the Doctor of Physical Therapy program and progress through the program requires:

- No course grade below 2.7 (B-) or an Unsatisfactory (U) grade
- Semester GPA above a 3.0 (B)
- Overall GPA above a 3.0 (B)
- Meeting essential functions guidelines, standards of professional conduct, ethical conduct and academic conduct.

Successful completion of the Doctor of Physical Therapy degree program requires completion of the academic requirements. In addition, students must adhere to standards of academic conduct, professional conduct, ethical conduct, and meet the essential functions guidelines described in the **Physical Therapy Student Handbook**. A copy of the Physical Therapy Student Handbook is provided to each student in the first semester of the program.

Student academic progress, professional conduct, and compliance with the essential function guidelines are monitored by the Physical Therapy Program Promotions and Honors Committee. The Physical Therapy Promotions and Honors Committee also reviews any suspected violations of the standards of academic conduct or ethical conduct. Students who are not demonstrating satisfactory progress in any of these areas or who violate standards of academic, professional or ethical conduct are subject to probation, suspension or dismissal. Dismissal by Oakland University Graduate School is based on a recommendation from the Physical Therapy Promotion and Honors Committee. Students will be informed of all probation decisions, and recommendations for suspensions and dismissals, in writing, including the grounds for the decision, a time frame for probation/suspension, and any recommendations, requirements, remedial work and/or repeat coursework that must be completed.

Academic progress

The physical therapy curriculum is sequentially designed so that early courses serve as the foundation and contain the pre-requisite knowledge and skills for coursework later in the curriculum. It is therefore expected that students complete coursework sequentially as indicated in the curricular plan outlined in the **Physical Therapy Student Handbook**. The curricular plan is subject to change and modification by the program faculty. The Promotion and Honors Committee may modify the curricular plan for particular students in extenuating or special circumstances.

An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Students receiving a semester GPA below a 3.0 (B) are subject to probation. Students receiving an Unsatisfactory (U) course grade or a course grade below 2.7 (B-) are subject to any or all of the following:

- Probation: Students who are placed on probation may attend courses as determined by the Promotion and Honors Committee. The Promotion and Honors Committee makes the determination of the courses which students may attend based on the cognitive and psychomotor knowledge and skills needed to progress in the curriculum, as well as the student's professional, ethical and academic conduct.
- Suspension: Students who are suspended may not attend any classes in the physical therapy program without the permission of the Promotion and Honors Committee. A student who is suspended when the Promotion and Honors Committee has determined that the student does not have the prerequisite cognitive, psychomotor and affective knowledge and skills required to progress in the curriculum and/or does not meet the expectations for professional, ethical and academic conduct. In general, as courses are only offered once a year, students are suspended for one year until the course is offered again.
- Remediation: Remediation in the form of coursework, independent study, and/or supervised clinical experience may be required.
- Academic testing: Students may be recommended for academic testing to assess academic needs.

Clinical experiences and clinical internships: Students who have not successfully completed pre-clinical courses, pre-clinical practical exams and/or do not meet the expectations for professional, ethical and academic conduct may not be allowed to participate in clinical experience and clinical internship courses.

Students receiving an Unsatisfactory (U) grade or a course grade below 2.7 (B-) must request, in writing, permission from the course instructor and Oakland University Graduate School to retake the course when it is again offered.

The essential functions consist of minimum physical, cognitive, and behavioral abilities required for students to successfully complete the physical therapy program and to practice safely once students graduate. Students must meet the essential functions guidelines for admission, retention, and graduation from the program. Essential functions guidelines can be found in the **Physical Therapy Student Handbook**, or on the **Physical Therapy Program Web site**. Students who do not meet the guidelines will be reviewed by the Physical Therapy Promotion and Honors Committee and are subject to probation, suspension or dismissal.

Students who have questions or need more information regarding accommodations to meet the essential functions may contact the Oakland University **Disability Support Services** office at (248) 370-3266 (voice) or (248) 370-3268 (TDD).

Dismissal from the DPT program

- Students are subject to dismissal from the program for any one of the following:
- Receipt of two course grades of Unsatisfactory (U) and/or course grades below a 2.7 (B) during the professional program
- A semester GPA lower than a 3.0 (B) for any two academic semesters during the program
- An overall GPA lower than a 3.0 (B) for any two academic semesters during the program
- Being on probation more than twice, on probation for consecutive semesters, or having been suspended for any academic progress, essential functions guidelines, academic conduct, professional conduct or ethical conduct issue
- An egregious violation of essential functions guidelines, or an egregious violation of standards of professional conduct, ethical conduct or academic conduct.

Appeal process

Appeals of Physical Therapy Honors and Promotion Committee dismissal decisions may be made to Oakland University Graduate School. Students should consult the section of the Oakland University Graduate Catalog dealing with appeal procedures concerning academic dismissal.

Student Conduct

Academic Conduct

Students are expected to adhere to the procedures for Academic Conduct described in the Oakland University Graduate Catalog. The physical therapy program will follow the procedures described in the Oakland University Graduate Catalog. Students found guilty of academic misconduct by the university will be subject to university sanctions and to sanctions from the program by the Physical Therapy Promotion and Honors Committee including probation, suspension, or dismissal.

Professional Conduct

Students are expected to adhere to the Guide for Professional Conduct published by the American Physical Therapy Association and to display the generic abilities/professional behaviors described in the **Physical Therapy Student Handbook**. Violations will be reviewed by the Physical Therapy Promotion and Honors Committee and could result in probation, suspension or dismissal from the program.

Ethical Conduct

Ethical conduct is critical to a profession. Students are required to adhere to the Code of Ethics for Physical Therapists published by the American Physical Therapy Association. Violations will be reviewed by the Physical Therapy Promotion and Honors Committee and could result in probation, suspension, or dismissal from the program.

Essential Functions Guidelines

The essential functions consist of minimum physical, cognitive, and behavioral abilities required for students to successfully complete the physical therapy program and to practice safely once students graduate. Students must meet the essential functions guidelines for admission, retention, and graduation from the program. Essential functions guidelines can be found in the Supplemental Program Form, the **Physical Therapy Student Handbook**, or on the **Physical Therapy Program Web site**. Students who do not meet the guidelines will be reviewed by the Physical Therapy Promotion and Honors Committee and are subject to probation, suspension or dismissal.

Students who have questions or need more information regarding accommodations to meet the essential functions may contact the Oakland University **Disability Support Services** office at (248) 370-3266 (voice) or (248) 370-3268 (TDD).

Expectations for Safe Practice

Students must safely and effectively pass all practical examinations that have been required as part of their pre-clinical courses prior to going on their full-time clinical education experiences or clinical internships. Students who have not successfully completed a required practical examination will not have successfully completed the course and will not be allowed to go on their full-time clinical education experiences until they have successfully completed the practical examination and course.

Knowledge, skills, and professional behavior are required for safe and effective practice in the clinical setting. Practical examinations test the student's ability to practice safely, ability to perform psychomotor skills, and ability to demonstrate professional behavior. Based on the type of examination, critical thinking, decision making, time

management, and organizational skills may also be tested. The **Physical Therapy Student Handbook** describes the practical examination policy.

Related Program Information

Plan of Study

All accepted applicants have a program-generated plan of study that details specific courses the students will use to satisfy their degree program requirements. The program provides the plan of study to Oakland University Graduate School. Students admitted to the Doctor of Physical Therapy program are required to attend a full-time program of prescribed course work unless a reduced load is requested and approved by the program director.

Policies and Procedures

Once admitted to the Doctor of Physical Therapy program, students should consult the **Physical Therapy Student Handbook** and the Clinical Education Manual for detailed information on policies and procedures.

Clinical Education and Internship Requirements

Physical therapy students are placed in a variety of clinical settings during the professional program. Students are responsible for their own transportation to clinical experiences and internships, as well as associated housing costs. Admission to and progression through the physical therapy program is contingent upon meeting and maintaining all clinical education requirements. Requirements include:

- Submission of a completed PT Program health assessment form, including inoculation for tetanus, skin testing or chest X-ray for tuberculosis; proof of immunity to rubella, rubeola, mumps, varicella, and Hepatitis B (or formal refusal of Hepatitis B vaccination) within four months prior to orientation.
- Proof of First Aid certificate: American Red Cross First Aid certificate, equivalent first aid certificate, or college credit course in First Aid.
- Proof of current CPR certification: American Heart Association certificate: Basic Life Support Healthcare Providers only.
- Proof of current health insurance for illness and injury.
- Criminal background checks, drug screens and Sex Offender Registry checks are to be submitted yearly.
- Proof of annual flu immunization.
- Urine drug screens and/or additional requirements may be mandatory by some clinical facilities.
- Requirements are subject to change based on current physical therapy clinical practice. Students are responsible for any costs associated with the requirements described above. Clinical sites are not required to provide free treatment for students and will bill students for use of their emergency or employee health services.

Students accepted to the physical therapy program must submit proof of all the above requirements by the deadline outlined during orientation. All requirements remain in effect throughout the Doctor of Physical Therapy program. Students who have not provided or maintained the necessary documentation may not be admitted to the program or once admitted may not be allowed to enroll in academic or clinical courses.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limit

If more than seven years have passed since the student has been admitted to the Doctor of Physical Therapy degree program and all requirements for degree have not been completed, the student must petition the program director and Oakland University Graduate School for an extension. Students who are deemed inactive may be dropped from the program, although they may petition for reinstatement.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Educational Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	EdD	Educational Leadership	Major

Program Type

Education Specialist

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

30

Delivery Method

In Person, Fully Online

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Caryn Wells

480H Pawley Hall

cmwells2@oakland.edu

Program Description

The state-approved Education Specialist (Ed.S.) program is based on the belief that effective leadership is learned by the content of the courses and the field experiences that are offered throughout the program. This program is practitioner-oriented, offering opportunities to apply theoretical learning with practical and authentic assignments. The learning laboratory for the program is the school or school district where assignments are completed and internships are conducted. The Ed.S. program utilizes a cohort program that develops a sense of community like that which is developed in a school; in this sense, the same practices that build capacity in an organization are cultivated and modeled in the program.

The Ed.S. program includes a two-year Internship in which the students work with a mentor of their choice, building practice in leadership activities that serve students, faculty, and the larger educational community. The students complete the required 240 hours for the State of Michigan and are eligible for K-12 Administrative Certification and Building Level Endorsement after satisfactory completion of the 30 credits of the program, and this Internship.

Program Delivery

The Education Specialist (Ed.S.) in Educational Leadership degree program requires 30 credits, all of which are taken within the 18 or 22-month, cohort-structured program. Prescribed courses are generally scheduled one night per week for fall and winter semesters, with the two-credit research courses scheduled for selected Saturdays throughout the semester. Summer semester requires class meetings twice a week for the 4-credit courses. The action research courses begin during the third semester of the program, and they culminate with group presentations of the research findings by cohort teams during the Annual Graduate Research Symposium.

The Ed.S. program is offered as a hybrid design at on-ground locations in Oakland, Macomb, and Genesee counties. The course delivery for the Ed.S. program is hybrid, with some class meetings on ground and others online. We also offer a fully online program that offers an asynchronistic schedule.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- Rolling admissions until the cohorts are filled to a maximum of 15 students for fall semester
- Rolling admissions until the cohorts are filled to a maximum of 15 students for winter semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Master's degree from a regionally accredited institution
 - Recommendation for Graduate Admission form:
Two recommendation forms must be from supervisors familiar with the candidate's current position
 - A statement indicating willingness to make a two-year commitment to the program and a statement of personal goals after completing the Educational Leadership program
 - Curriculum Vitae or Resume
 - Candidates may be interviewed by the program coordinator, who will make admission recommendations to Graduate Admissions.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

The coordinators for the Ed.S. program will screen candidates after all application materials have been received by Graduate Admissions.

Degree Requirements

The Education Specialist in Educational Leadership degree is awarded upon satisfactory completion of 30 credits in an approved program of study as follows. All program participants select a mentor who is a practicing administrator. The Internship begins during the initial semester and continues throughout the entire program. Goals and activities are mutually agreed upon and reflect the state approved ELCC Standards. The students complete the required 240 internship hours for State of Michigan and are eligible for building level certification after satisfactory completion of the 30 credits of the program, and this Internship.

Course Requirements (30 credits)

Required courses:

- **EA7950 Internship Experience I** Internship Experience I (1 credit)
- **EA8950 Internship Experience II** Internship Experience II (1 credit)
- **EA7720 School as Formal Organization** School as a Formal Organization (4 credits)
- **EA8840 School Business Management** School Business Management (4 credits)
- **EA7780 Educational Law** Educational Law (4 credits)
- **EA7740 Curriculum & Staff Development** Curriculum and Staff Development (4 credits)
- **EA7940 Sem School/Community Develop Seminar on School/Community Development** (2 credits)
- **EA7750 Test/Measure/Data Analysis** Testing, Measurement and Data Analysis Techniques (2 credits)
- **EA8850 Action Research for Ed Leaders** Action Research for Educational Leadership (4 credits)
- **EA8820 Hum Resource Mgt & Supervision** Human Resource Management and Supervision (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: No grade below 2.7 may be applied to the degree, and an overall GPA of 3.0 must be maintained.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Internship and Field eperiences

All program participants are paired with a mentor, who is a practicing administrator. The internship begins during the initial course and continues throughout the entire program. Goals and activities are mutually agreed upon by the intern, mentor and cohort coordinator. Mentors will also provide support and assistance to Ed.S. students as they complete the field experience requirement of various courses during the program.

Academic Portfolio

All program participants create an Ed.S. academic electronic portfolio during the initial course. Using this framework, students will organize artifacts collected throughout their courses, field work, and internship. Portfolios will be presented during the final seminar of the program.

Ph.D. or Ed.D. Cognate Option

Upon completion of the Education Specialist in Educational Leadership degree program, students may choose to apply to the Ph.D. in Education with a major in Educational Leadership program or the Ed.D. in Organizational Leadership program. Twenty-eight (28) credits from Ed. Spec. can transfer as a cognate in the Ph.D. program and Twenty (20) credits can transfer as a cognate in the Ed.D. program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Organizational Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	EDD	Organizational Leadership	Major

Program Type

Doctorate

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

60

Delivery Method

In Person

Required

Summer
Semesters
0

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Coordinators:

Julia B. Smith

475B Pawley Hall

(248) 370-3082

j15smith@oakland.edu

Eileen S. Johnson

480B Pawley Hall

(248) 370-2627

johnso10@oakland.edu

Program Description

The goal of the professional doctorate (Ed.D.) in organizational leadership is to develop effective leaders in organizational contexts cutting across many different paradigms to build greater professional coordination between different service organizations and varied global perspectives. Through rigorous scholarship and application of interdisciplinary content knowledge, graduates with an Ed.D. in Organizational Leadership will excel in strategic leadership, human organizational development, social justice knowledge, interdisciplinary collaboration, and development and change in different organizational contexts.

This professional doctorate in organizational leadership is designed to connect classroom and professional practice through internships, collaborative projects and field based research. Students will work with practitioners in the field using research to identify needs and

assess existing programs and applying theory to develop and implement innovative programs. All classes are based on current and critical issues and include opportunities for application in the field. Because the issues facing organizations in the next century will not be faced or resolved in isolation, the more traditional compartmentalization of knowledge and skills has been replaced by embedding the learning into the context of professional practice. Issues will be studied within this context to address the interrelationships and dynamics that must be addressed to resolve problems in an increasingly complex world.

The Ed.D. in Organizational Leadership is designed to be field-based to meet the needs of leaders across different organizational contexts, and to draw on the strengths of practitioner training that has been identified in the Carnegie Project on the Education Doctorate, integrating internship experience with classroom learning. Graduates of this program will be prepared in leadership in the areas of education, health care, legal institutions, and other non-profit organizations, along with collaborative programs across different professional schools at Oakland University.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- **International applicants** (deadline May 1st)

Students are admitted in the fall semester only. Applications will be accepted until July 15 for the following fall semester.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - a master's degree or equivalent from an accredited college or university with a cumulative grade point average of at least 3.0 on a 4 point scale (or equivalent);
 - a minimum of two years of professional experience;
 - a current professional resume/vita;
 - 2 letters of recommendation speaking to applicant's leadership capacity; and
 - a written narrative of goals for obtaining the Ed.D. in Organizational Leadership

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for

success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Finalists will be selected based upon a review of the criteria below, as well as the personal statement:

- Graduate grade point average (minimum of 3.0)
- Undergraduate grade point average
- Quality of writing in goal statement
- Appropriateness of goals to the degree
- Evaluation scores of letters of recommendation

Degree Requirements

The Professional Doctorate in Organizational Leadership degree is awarded upon satisfactory completion of a minimum of 60 credits beyond the master's degree in an approved program of study: 16 credits in the doctoral common core, 12 credits in field experience, 20 credits in the cognate, and a 12 credits in research training for the capstone project.

Post-masters credits that are not part of an awarded post-masters degree or graduate certificate may be reviewed individually according to Oakland University's graduate transfer credit policy.

Course Requirements (60 credits)

a. Doctoral Common core (16 credits)

Choose four courses from the following:

- **ED8410 Phil/Ethical Issues Org Ldrshp Philosophical and Ethical Issues of Organizational Leadership (4 credits)**
- **ED8420 Adv Politics/Policy Org Ldrshp Advanced Politics and Policy in Organizational Leadership (4 credits)**
- **ED8430 Diversity in Orgn Ldrshp Promoting Diversity and Social Justice in Organizations (4 credits)**
- **ED8440 Org/Adlt Lrn Theories/Prof Cap Organizational and Adult Learning Theories and Building Professional Capital (4 credits)**
- **ED8450 Motivation and Org Leadership Motivation, Change and Innovation for Organizational Leadership (4 credits)**
- **ED8460 Prin Org Ldrshp Principles of Organizational Leadership (4 credits)**

b. Field Experience (12 credits)

Required courses:

- **ED8953 Org Leadership Internship I Organizational Leadership Internship I (4 credits)**

- **ED8954 Org Leadership Internship II Organizational Leadership Internship II (4 credits)**
- **ED8955 Org Leadership Internship III Organizational Leadership Internship III (4 credits)**

c. Capstone Research (12 credits)

Required courses:

- **ED8610 Program Evaluation Program Evaluation in Organizational Leadership (4 credits)**
- **ED8620 Evidence for Program Evaluation Gathering, Reading, Assessing and Communicating Evidence for Program Evaluation (4 credits)**
- **ED8630 Capstone Project Completion Capstone Project Completion (4 credits)**

d. Cognate (20 credits)

Students who have been awarded a post-masters Graduate Certificate from Oakland University or another accredited university may reduce the cognate credit requirement up to 16 credits for the EdD degree. Graduate credits that are not part of an awarded post-masters degree or graduate certificate will be reviewed individually according to Oakland University's transfer credit policy. Cognate plans are available in the areas of K-12 School Leadership, Leadership in Higher Education, Non-Profit Administration, Health Care Administration, Human Diversity and Social Justice, Lean Leadership, Central Office Administration, and Human Resources Development. More information on the courses in these plans can be obtained by contacting the program coordinators.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship

- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Academic Advising

Student advising will be the responsibility of the Program Coordinator in the Department of Organizational Leadership. Students who select a cognate outside of the department will also be advised by a faculty member from the appropriate department. The role of the advisor will be to assist the student in selecting the appropriate courses and provide guidance for the appropriate cognate area of study with support from individual departments. Students will also benefit from the career advising that they will receive from professionals during their internship experiences throughout the program.

A yearly departmental review of student progress will take place with a focus on coursework, internship experiences, progress toward Capstone Project, and satisfaction with the program. The review will include a review of transcripts as well as reports from the internship advisor. Progress will be evaluated and each student will be informed of their status in the program.

Capstone Project

The completion of quality capstone research is a requirement for the professional Ed.D. in Organizational Leadership degree from the Oakland University. In addition to the research courses embedded in the curriculum, students register for Capstone Project (**ED8630 Capstone Project Completion**). Students will undertake original capstone research that will be conducted usually starting at the end of their first year and continue throughout the time in the program, culminating with an original formal written and oral presentation to the client and to a juried review committee. The Juried Review Committee will be responsible for providing oversight, guidance, and final approval of the Capstone Project. Juried Review Committees are comprised of three faculty, consisting of (1) the Capstone Faculty Advisor, (2) a faculty member from the student's cognate area, and (3) the student's Internship Advisor.

The evaluation research, established and monitored by program staff, involves research and analysis of an issue currently being experienced by a local educational, governmental or non-profit entity. The evaluation research will be designed and implemented in coordination with the client and will include the following:

- 1) the executive summary,

- 2) statement of the problem(s),

- 3) description of methodology used to analyze the problem,

- 4) results of strategies or products developed to address the problem(s),

- 5) conclusions, actions, and implications, and

- 6) formal presentation of the research and recommendations to the client and a juried review committee.

The final manuscript for the capstone research should be a minimum of 35 double-spaced pages of text (APA Style) plus preliminary and supplementary pages.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive qualifying examination and the preliminary dissertation proposal oral defense are completed, and for each subsequent term (fall and winter) until all the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

The maximum time limit for completing an Ed.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biomedical Sciences

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Biomedical Sciences	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Biological Sciences

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Biological Sciences

375 Dodge Hall ([map](#))

(248) 370-3550 • Fax (248) 370-4225

www.oakland.edu/biology

Program Coordinator:

Sara Blumer-Schuetz

biogradprograms@oakland.edu

Program Description

The Graduate Certificate in Biomedical Sciences is designed to strengthen the academic background of individuals who are seeking acceptance into graduate health programs, such as medical, veterinary, dental, physician assistant, or other professional programs.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Review of applications will begin on the following dates:

- April 15 for fall semester
- Nov 15 for winter semester
- March 1 for summer semester
- **International applicants:** September 1 for winter semester, and January 1 for fall and summer semester.

Applications received after due dates, but before university deadlines, may be reviewed, subject to availability.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants should have earned a bachelor's degree in biology or related subject (e.g., biomedical sciences, health sciences, biochemistry, molecular biology, botany, or zoology) from a regionally accredited institution or proof of a U.S. equivalent degree for internationally educated applicants.
 - Applicants with an earned bachelor's degree in another discipline must have completed 5 lecture courses in biology, 2 lecture courses in college-level mathematics, 1 lecture course in physics, and 3 lecture courses in chemistry. Applicants with undergraduate prerequisite course deficiencies in these areas must complete the preparatory coursework before being admitted to the program.
 - Applicants should have a minimum cumulative GPA of 3.0.
 - An essay (goal statement) describing their interest in the program and career goals.

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and evidence of the capacity for graduate study may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a specified number of graduate credits, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Transfer Credits

One course (3 or 4 credits) may be transferred to the graduate certificate from a regionally-accredited institution providing it meets the criteria set forth by Oakland University for graduate transfer credits.

Certificate Requirements

The Graduate Certificate in Biomedical Sciences is awarded upon satisfactory completion of 16 credits in an approved program of study.

Course Requirements (16 credits)

16 credits of 5000-level courses in Biology from the list below (excluding BIO 5101, BIO 5600, and BIO 5602) chosen by the student and approved by their departmental Graduate Advisor.

- **BIO5210 Molecular Biology Molecular Biology (4 credits)**
- **BIO5222 Stem Cell Biology Stem Cell Biology (4 credits)**
- **BIO5224 Science of Vision Science of Vision (4 credits)**
- **BIO5226 Immunology Immunology (4 credits)**
- **BIO5240 Mechanisms of Development Advanced Topics in Mechanisms of Development (4 credits)**
- **BIO5256 Adv Tp: Cellular/Biochem/Metab Advanced Topics in Cellular Biochemistry and Metabolism (4 credits)**
- **BIO5320 Medical Parasitology Medical Parasitology (4 credits)**
- **BIO5342 Topic: Evolutionary Biology Topics in Evolutionary Biology (4 credits)**
- **BIO5388 Design/Analysis Bio Expts Design and Analysis of Biological Experiments (4 credits)**
- **BIO5400 Advanced Genetics Advanced Genetics (4 credits)**
- **BIO5412 Functional Genomics Bioinforma Functional Genomics and Bioinformatics (4 credits)**
- **BIO5510 Virology Virology (4 credits)**
- **BIO5530 Medical Microbiology Medical Microbiology (4 credits)**
- **BIO5620 Advanced Human Physiology Advanced Human Physiology (4 credits)**
- **BIO5622 Endocrinology Endocrinology (4 credits)**
- **BIO5610 Advance Topics Cell Physiology Advanced Topics in Cell Physiology (4 credits)**
- **Or other 5000-level BIO courses approved by the Biological Sciences Graduate Programs Committee.**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Transfer to the Master of Arts in biology (MA) or Master of Science in biology (MS) degree program

Students admitted to the Graduate Certificate in Biomedical Sciences program who wish to transfer to the Master of Arts in Biology (MA) or Master of Science in Biology (MS) degree program must do so prior

to the completion of the graduate certificate program. They must meet all the admission requirements for the MA or MS degree program and must also:

1. have successfully completed three (3) courses in the graduate certificate program with at least a 3.0 GPA.
2. submit a letter from a Biological Sciences faculty member that expresses willingness to serve as their research mentor (for MS degree).

Students admitted to the degree program can apply to transfer up to 16 credits earned in the graduate certificate program to their MA or MS degree. These credits are subject to the six-year time limit.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Teaching English to Speakers of Other Languages PreK-12(TESOL)

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Teaching English Major to Speakers of Other Languages PreK-12(TESOL)	

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Linguistics

Credit Total	Delivery Method	Required Summer Semesters
24	Partially Online	1

Requirements

Program Requirements

Department of Linguistics

113 Fitzgerald House ([map](#))
(248) 370-2175 • Fax (248) 370-3144
www.oakland.edu/linguistics

Graduate Adviser:

Michael Smith
114 Fitzgerald House
(248) 364-8811
smith@oakland.edu

Graduate TESL Coordinator:

Angela Super
116 Fitzgerald House
(248) 370-2176
super@oakland.edu

Program Description

The Graduate Certificate in Teaching English to Speakers of Other Languages (TESOL) program consists of 24 credits in Applied Language Studies (ALS) and Linguistics (LIN) as set forth below.

Our TESOL coursework has been approved by the Michigan Department of Education and prepares students to take the PreK-12 Michigan Test for Teacher Certification (MTTC) in the ESL

endorsement (NS) subject area. Please note that the Michigan Department of Education requires the following of PreK-12 teachers working toward their PreK-12 ESL/NS endorsement:

- Completion of core content area program in conjunction with or prior to adding the ESL endorsement.
- Candidates for completion must have completed a core content program in Elementary Education, Language Arts, Social Studies, Science, or Mathematics as a base for the ESL/NS endorsement.
- Students must demonstrate English language proficiency by meeting Oakland University's English language proficiency requirement upon registration for the program.
- Students must also have documented experience learning a second language equivalent to two semesters' worth of college-level study in order to gain an understanding and appreciation of the processes of learning an additional language.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

2. Additional department application requirements

- All applicants with baccalaureate degrees from a regionally accredited institution will be considered.
- Recommendation for Graduate Admission form
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability
- Minimum undergraduate grade-point average of 3.0 is required for admission to the program (as is the case for admission to the Master of Arts degree program in linguistics).
- Applicants who are non-native speakers of English will be asked to demonstrate their fluency in English.
- Applicants must have completed the prerequisite 2 terms of college-level foreign language study or the equivalent. (This is a state requirement.)

- Applicants must have completed the prerequisite **LIN2201 Intro to Linguistics** Introduction to Linguistics or previously completed a course in Introduction to Linguistics elsewhere.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

Course Requirements (24 credits)

a. Core Requirements

- **ALS5518 Tchng Engl to Multling Learner Teaching English to Multilingual Learners (4 credits)**
- **ALS5538 Curr, Mat Des, Assess, Compl Curriculum, Material Design, Assessment and Compliance (4 credits)**
- **ALS5589 Tchng Eng Lang Special Needs Teaching English Language Learners with Special Needs (4 credits)**
- **ALS5960 Practicum Practicum (4 credits) or ALS6960 ESL Practicum ESL Practicum (4 credits); ALS5960 Practicum is for the adult-learner pathway; ALS6960 ESL Practicum is for the PreK12 pathway.**
- **LIN5534 Language Acquisition Language Acquisition (4 credits)**
- **LIN5575 Language and Culture Language and Culture (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Relationship to the Master of Arts in Linguistics

All courses taken to fulfill the requirements for the graduate certificate will count toward the Master of Arts (M.A.) degree program in linguistics with a TESOL specialization. It is anticipated that a graduate of the graduate certificate program who has all the prerequisites for the M.A. in linguistics can apply for admission to the program and complete the additional credits in about two calendar years as a part-time student or in one calendar year as a full-time student. The department will consider applications from students who complete the graduate certificate program with less than 3.0 grade-point average, on an individual basis.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Statistical Methods

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Statistical Methods	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

20

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Mathematics and Statistics

368 Mathematics and Science Center ([map](#))

(248) 370-3430 • Fax (248) 370-4184

<http://www.oakland.edu/math/>

Graduate Coordinator:

Li Li

350 Mathematics and Science Center

(248) 370-3447

li2345@oakland.edu

Program Description

The aim of the Statistical Methods Graduate Certificate program is to provide knowledge in modern statistical methods for industrial managers. Graduates of the program will be capable of standard statistical treatment of industrial problems arising in research, development and production. They also will be able to recognize difficult problems and communicate well with fully-trained statistical experts. This certificate is designed for completion in either one year or two years by students who are employed full time.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester

- March 1 (regular) for summer semester

- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- [Graduate application requirements](#)
- Additional department application requirements**

- Previous training should include one introductory statistics course and some exposure to calculus.

- Requirements for Recommendations**

The two Recommendation for Graduate Admission forms from individuals in a supervisory relationship to the applicant

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, the student must have completed an approved program of at least 20 credits with an overall grade point average of 3.0. The course selections for a particular student will be chosen to complement previous statistics study and to enhance the competency of the individual in his/her chosen field of application.

Course Requirements (20 credits)

- [STA5001 Stat Methods in Res and Prod Statistical Methods in Research and Production \(4 credits\)](#)
- [STA5002 Applied Linear Models I Applied Linear Models I \(4 credits\)](#)
- [STA5003 Applied Linear Models II Applied Linear Models II \(4 credits\)](#)

In addition: you must choose 8 credits of STA courses, 5004 or higher

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.00.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To fulfill the certificate requirements, the student must have completed an approved program of at least 20 credits with at least a C in each course and an overall grade point average of 3.00 or better in all courses.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Relationship to Master of Science in Applied Statistics

STA 5001 does not count toward the Master of Science in Applied Statistics degree, but all other STA courses numbered 5002 or higher count fully toward the degree. Thus, students who complete the Graduate Certificate program will have 16 credits that count toward the M.S. degree.

Certificate program students who wish to continue and pursue the M.S. degree should apply for admission to the M.S. program prior to completing the fifth course, and should make sure they have satisfied the prerequisites for admission to the M.S. program (which may require taking additional mathematics courses). For more information, speak to the coordinator.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Piano Performance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Piano Performance	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-3048

ttian@oakland.edu

Program description

The Graduate Certificate in Piano Performance is a professional program for highly experienced pianists, designed to enable them to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
 - Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
For piano performance, contact Professor Tian Tian (ttian@oakland.edu).
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Graduate Certificate in Piano Performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, letters of recommendation, audition and any other admission requirement established by the academic program.

Certificate requirements

The Graduate Certificate in Piano Performance is awarded upon satisfactory completion of 16 credits in an approved program of study.

Course requirements (16 credits)

- **MUS 5541 - Piano Pedagogy I: Beginner Method Books (2 credits)**
- **MUS 5542 - Piano Pedagogy II: Intermediate Repertoire (2 credits)**
- **MUS 5555 - Piano Repertoire I (2 credits)**
- **MUS 5556 - Piano Repertoire II (2 credits)**
- **MUA 5996 - Graduate Recital (2 credits)**

In addition: you must choose 6 credits of 5000 level Applied Study courses

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: A minimum grade of B is required in all courses. In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Transfer to Master of Music

Graduate certificate students who wish to transfer to the Master of Music degree program must apply to the master's program prior to enrolling in the last certificate course.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Conducting, Graduate Certificate

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Conducting, Graduate Certificate	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

16

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mttd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Graduate Certificate in Conducting is a professional program designed to meet the needs of music teachers and other music professionals who are interested in developing high-level skills and understanding in instrumental and/or choral conducting. The program consists of 16 credits of conducting and related courses.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- International applicants

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
 - Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
 - For choral conducting, contact Professor Michael Mitchell (mmitchel@oakland.edu).
 - For instrumental conducting, contact Professor Gregory Cunningham (cunningh@oakland.edu).

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Graduate Certificate in Conducting program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, writing sample, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian coordinator of the master's program, at ttian@oakland.edu.

Certificate requirements

The Graduate Certificate in Conducting is awarded upon satisfactory completion of 16 credits in an approved program of study.

Course requirements (16 credits)

- **MUS 5476 - Literature for the Middle School and High School Band (2 credits)**
- **MUS 5565 - Survey and Study of Choral Literature (2 credits)**
- **MUS 5581 - Advanced Choral Interpretation and Conducting Techniques (2 credits)**
- **MUS 5582 - Advanced Instrumental Interpretation and Conducting Techniques (2 credits)**
- **MUA 6020 - Conducting Apprenticeship (2 credits) ***
- *must enroll twice for a total of 4 credits

- Choose two courses (4 credits) from the following:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- **MUS 5996 - Independent Study (2 or 4 credits)**
- or Electives, chosen in consultation with an adviser (**4 credits**)

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements: A minimum grade of B is required in all courses. In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a [Petition to Repeat a Course form](#) OR seek approval to substitute a different course appropriate to the degree requirements by submitting a [Petition for Course Waiver/Substitution](#).

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Transfer to Master of Music

Graduate certificate students who wish to transfer to the Master of Music degree program must apply to the master's program prior to enrolling in the last certificate course.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Instrumental Performance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Instrumental Performance	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Graduate Certificate in Instrumental Performance is a professional program for highly experienced orchestral instrumentalists, designed to enable them to expand their knowledge of repertoire and technique and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
 - Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
For brass or percussion performance, contact Professor Kenneth Kroesche (kroesche@oakland.edu)
For wind or string performance, contact Professor Jeffrey Heisler (jaheisle@oakland.edu)

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Graduate Certificate in Instrumental Performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, letters of recommendation, audition, and any other admission requirement established by the academic program.

Certificate requirements

The Graduate Certificate in Instrumental Performance is awarded upon satisfactory completion of 16 credits in an approved program of study.

Course requirements (16 credits)

- **MUA 5562 - Instrumental Repertoire (2 credits)**
- **MUA 5563 - Instrumental Pedagogy (2 credits)**
- **MUA 5564 - Instrumental Performance Topics (2 credits)**
- **MUA/MUS/MUE Elective or MUS 5996 - Independent Study (2 credits)**
- **MUA 5996 - Graduate Recital (2 credits)**
- ***In addition:** you must choose 6 credits of 5000-level MUA courses

Standard academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: A minimum grade of B is required in all courses. In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course form** OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Transfer to Master of Music

Graduate certificate students who wish to transfer to the Master of Music degree program must apply to the master's program prior to enrolling in the last certificate course.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Court Administration	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Program Description

The Graduate Certificate in Court Administration program is designed to provide students who have already earned a bachelor's degree with additional education and training in the specialized area of court administration. Students will be required to take at least 12 credits of graduate work beyond the bachelor's degree. The court administration specialty area is based on elective coursework currently offered by the MPA program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester

- March 1 (regular) for summer semester

- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate Application Requirements

2. Additional department application requirements

- Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- Applicants should have a cumulative GPA of 3.0 or better.

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, goal statement, and any other admission requirements established by the academic department.

Certificate Requirements

To provide specialized work in court administration, the student is required to complete a minimum of 12 credits in the courses listed below.

Course Requirements (minimum of 12 credits)

Required Core Course (3 credits)

- PA5800 Court Administration Court Administration (3 credits)

Elective Courses (9 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5110 Law & Public Policy Law and Public Policy (3 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5120 Law & Admin: Local Perspective Law and Administration: Local Perspectives (2 credits)

- **PA5130 Law & Admin:State Perspective Law and Administration: State Perspectives (2 credits)**
- **PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)**
- **PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)**
- **PA5310 Public Sector EmPLY Rela Public Sector Employee Relations (2 or 3 credits)**
- **PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)**
- **PA6800 Advanced Court Administration Advanced Court Administration (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good Academic Standing is a Requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Students must earn a grade of B or above in each course required for the graduate certificate. Students may repeat any course once in order to achieve the minimum grade for that course.

Academic probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated MPA students.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/Substitution** requesting the substitution must be approved.

Number of graduate certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer credit

Up to 3 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 12-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BA, Graduate Certificate	Spanish Language and Literature/Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

- Maintain a minimum 3.0 cumulative grade point average at completion of the Spanish Language and Literature, B.A. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Spanish Language and Literature, B.A./Court Administration Graduate Certificate option is designed for high achieving undergraduate students pursuing a Spanish Language and Literature, B.A. and a Graduate Certificate in Court Administration.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the Spanish Language and Literature B.A. However, one of the following courses is still required: **SPN4200 Mod/Contemp Spanish Literature**, **SPN4880 Spanish-American Lit bef 1888**, or **SPN4890 Spanish-Amer Lit after 1888**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate;

Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Health Care Administration	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Political Science

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Program Description

The Graduate Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- Graduate application requirements**

- Additional department application requirements**

- Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- Applicants should have a cumulative GPA of 3.0 or better.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, goal statement, and any other admission requirements established by the academic department.

Certificate Requirements

To provide specialized work in health care administration, the student is required to complete a minimum of 12 credits in the courses listed below.

Course Requirements (minimum of 12 credits)

a. Core Courses (9 credits)

- PA5600 Org/Admin Hlth/Med Prog Organization and Administration of Health and Medical Care Programs** (3 credits)
- PA6600 Public Policy & Health Care Public Policy and Health Care** (3 credits)
- PA6610 Hlth Plan: Policies & Process Health Planning: Policies and Processes** (3 credits)

b. Elective Courses (3 credits)

Students must choose an additional 3 credits from the courses below:

- PA5040 Intergovernmental Relations Intergovernmental Relations** (3 credits)
- PA5050 Administrative Ethics Administrative Ethics** (2 credits)
- PA5060 Strategic Planning Strategic Planning** (3 credits)
- PA5070 Risk Management Risk Management** (2 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law** (3 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques** (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting** (2 credits)

- **PA5310 Public Sector Employee Relations (2 or 3 credits)**
- **PA5320 Current Issues in Human Resources Management (2 or 3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Students must earn a grade of B or above in each course required for the graduate certificate in order to qualify for the graduate certificate; students may repeat any course once in order to achieve the minimum grade for that course.

Academic probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated MPA students.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/Substitution** requesting the substitution must be approved.

Number of Graduate Certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer Credit

Up to 3 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 12-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course Requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software Skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BA, Graduate Certificate	Spanish Language and Literature/Health Care Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

- Maintain a minimum 3.0 cumulative grade point average at completion of the Spanish Language and Literature, B.A. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Spanish Language and Literature, B.A./Health Care Administration Graduate Certificate option is designed for high achieving undergraduate students pursuing a Spanish Language and Literature, B.A. and a Graduate Certificate in Health Care Administration.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the Spanish Language and Literature B.A. However, one of the following courses is still required: **SPN4200 Mod/Contemp Spanish Literature**, **SPN4880 Spanish-American Lit bef 1888**, or **SPN4890 Spanish-Amer Lit after 1888**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate;

Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Nonprofit Organization and Management	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

12

Delivery Method

In Person

Required Summer Semesters

0

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Program Description

The Graduate Certificate in Nonprofit Organization and Management program is designed to provide students who have already earned a bachelor's degree with additional education and training in the specialized area of nonprofit organization and management. Students will be required to take at least 12 credits of graduate work beyond the bachelor's degree. The nonprofit organization and management specialty area is based on elective coursework currently offered by the MPA program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester

- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- Graduate application requirements**
- Additional department application requirements**

- Recommendation for Graduate Admission form**

One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

- Applicants should have a cumulative GPA of 3.0 or better.

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, goal statement, and any other admission requirements established by the academic department.

Certificate Requirements

To provide specialized work in nonprofit organization and management, the student is required to complete a minimum of 12 credits in the courses listed below.

Course Requirements (minimum of 12 credits)

Core Courses (6 credits)

- PA5500 Non-Profit Orgnztn & Mgt Nonprofit Organization and Management (3 credits)**
- PA6500 Fundraising & Philanthropy Fundraising and Philanthropy (3 credits)**

Elective Courses (6 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)**
- PA5050 Administrative Ethics Administrative Ethics (2 credits)**
- PA5060 Strategic Planning Strategic Planning (3 credits)**
- PA5070 Risk Management Risk Management (2 credits)**
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)**
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)**

- **PA5210 Workshop in Budgeting Workshop in Budgeting (2 credits)**
- **PA5320 Current Issues Human Resource Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)**
- **PA6400 Econ Development Theory/Pract Economic Development Theory and Practice (3 credits)**
- **PA6510 Grants:Politics/Administration Grants: Politics and Administration (2 or 3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Students must earn a grade of B or above in each course required for the graduate certificate in order to qualify for the graduate certificate; students may repeat any course once in order to achieve the minimum grade for that course.

Academic probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated MPA students.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/Substitution** requesting the substitution must be approved.

Number of Graduate Certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer Credit

Up to 3 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 12-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course Requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software Skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Academic Probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated M.P.A. students.

Academic Progress

Students must earn a grade of 3.0 or above in each course required for the graduate certificate in order to qualify for the graduate certificate; students may repeat any course once in order to achieve the minimum grade for that course.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/ Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BA, Graduate Certificate	Spanish Language and Literature/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total

126

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined Spanish Language and Literature, B.A./Nonprofit Organization and Management Graduate Certificate option is designed for high achieving undergraduate students pursuing a Spanish Language and Literature, B.A. and a Graduate Certificate in Nonprofit Organization and Management.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the Spanish Language and Literature B.A. However, one of the following courses is still required: **SPN4200 Mod/Contemp Spanish Literature**, **SPN4880 Spanish-American Lit bef 1888**, or **SPN4890 Spanish-Amer Lit after 1888**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;

- Apply for and receive delayed admission to the Graduate Certificate;
- Maintain a minimum 3.0 cumulative grade point average at completion of the Spanish Language and Literature, B.A. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Local Government Management	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Program Description

The Graduate Certificate in Local Government Management program is designed to provide students who have already earned a bachelor's degree with additional education and training in the specialized area of local government management. Students will be required to take at least 12 credits of graduate work beyond the bachelor's degree. The local government management specialty area is based on elective coursework currently offered by the MPA program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester

- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants should have a cumulative GPA of 3.0 or better.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, goal statement, and any other admission requirements established by the academic department.

Certificate Requirements

To provide specialized work in local government management, the student is required to complete a minimum of 12 credits in the courses listed below.

Course Requirements (minimum of 12 credits)

Core Course (3 credits)

- **PA5400 Local Governmt Managemnt Local Government Management (3 credits)**

Elective Courses (9 credits)

- **PA5030 Government and the Economy Government and the Economy (4 credits)**
- **PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)**
- **PA5050 Administrative Ethics Administrative Ethics (2 credits)**
- **PA5060 Strategic Planning Strategic Planning (3 credits)**
- **PA5070 Risk Management Risk Management (2 credits)**
- **PA5110 Law & Public Policy Law and Public Policy (3 credits)**
- **PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)**

- **PA5120 Law & Admin: Local Perspective Law and Administration: Local Perspectives (2 credits)**
- **PA5130 Law & Admin: State Perspective Law and Administration: State Perspectives (2 credits)**
- **PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)**
- **PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)**
- **PA5310 Public Sector Empl Rel Public Sector Employee Relations (2 or 3 credits)**
- **PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)**
- **PA6400 Econ Development Theory/Pract Economic Development Theory and Practice (3 credits)**
- **PA6410 Community Planning & Zoning Community Planning and Zoning (3 credits)**
- **PA6510 Grants: Politics/Administration Grants: Politics and Administration (2 or 3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Students must earn a grade of B or above in each course required for the graduate certificate in order to qualify for the graduate certificate; students may repeat any course once in order to achieve the minimum grade for that course.

Academic probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated MPA students.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/Substitution** requesting the substitution must be approved.

Number of Graduate Certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer Credit

Up to 3 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 12-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course Requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software Skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BA, Graduate Certificate	Spanish Language and Literature/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total

126

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined Spanish Language and Literature, B.A./Local Government Management Graduate Certificate option is designed for high achieving undergraduate students pursuing a Spanish Language and Literature, B.A. and a Graduate Certificate in Local Government Management.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the Spanish Language and Literature B.A. However, one of the following courses is still required: **SPN4200 Mod/Contemp Spanish Literature**, **SPN4880 Spanish-American Lit bef 1888**, or **SPN4890 Spanish-Amer Lit after 1888**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate;

- Maintain a minimum 3.0 cumulative grade point average at completion of the Spanish Language and Literature, B.A. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Criminal Justice Leadership	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Program Description

The Graduate Certificate in Criminal Justice Leadership program is designed to provide students who have already earned a bachelor's degree with additional education and training in the specialized area of criminal justice leadership. Students will be required to take at least 12 credits of graduate work beyond the bachelor's degree. The criminal justice leadership specialty area is based on elective coursework currently offered by the MPA program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester

- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants should have a cumulative GPA of 3.0 or better.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, goal statement, and any other admission requirements established by the academic department.

Certificate Requirements

To provide specialized work in criminal justice leadership, the student is required to complete a minimum of 12 credits in the courses listed below.

Course Requirements (minimum of 12 credits)

a. Core Courses (6 credits)

- **PA5700 Org/Mgt/Crimn'l Just Agencies Organization and Management of Criminal Justice Agencies (3 credits)**
- **PA5110 Law & Public Policy Law and Public Policy (3 credits)**

b. Elective Courses (6 credits)

Students must choose an additional 6 credits from the courses below:

- **PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)**
- **PA5050 Administrative Ethics Administrative Ethics (2 credits)**
- **PA5060 Strategic Planning Strategic Planning (3 credits)**
- **PA5070 Risk Management Risk Management (2 credits)**
- **PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)**
- **PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)**

- **PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)**
- **PA5310 Public Sector Empla Public Sector Employee Relations (2 or 3 credits)**
- **PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)**
- **PA5800 Court Administration Court Administration (3 credits)**
- **PA6700 Law Enforcement Leadership Law Enforcement Leadership (3 credits)**
- **PA6710 Security Leadership PA 6710 - Security Leadership (3 credits)**
- **PA6720 Corrections Leadership PA 6720 - Corrections Leadership (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Students must earn a grade of B or above in each course required for the graduate certificate in order to qualify for the graduate certificate. Students may repeat any course once in order to achieve the minimum grade for that course.

Academic probation

Students admitted to a graduate certificate program will be subject to the same policies governing academic progress for regularly matriculated MPA students.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/Substitution** requesting the substitution must be approved.

Number of Graduate Certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer Credit

Up to 3 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 12-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course Requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software Skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/ Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BA, Graduate Certificate	Spanish Language and Literature/ Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined Spanish Language and Literature, B.A./Criminal Justice Leadership Graduate Certificate option is designed for high achieving undergraduate students pursuing a Spanish Language and Literature, B.A. and a Graduate Certificate in Criminal Justice Leadership.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the Spanish Language and Literature B.A. However, one of the following courses is still required: **SPN4200 Mod/Contemp Spanish Literature**, **SPN4880 Spanish-American Lit bef 1888**, or **SPN4890 Spanish-Amer Lit after 1888**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate;

- Maintain a minimum 3.0 cumulative grade point average at completion of the Spanish Language and Literature, B.A. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Communication for Organizations

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Communication for Organizations	Major

Program Type

GR Certificate

College/School

College of Arts and Sciences (AS)

Department(s)

Communication, Journalism & PR

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Communication, Journalism, and Public Relations

316 Wilson Hall ([map](#))

(248) 370-4120 • Fax (248) 370-4208

[www.oakland.edu/ CJ](http://www.oakland.edu/CJ)

Program Coordinator:

Rebekah Farrugia

306 Wilson Hall

(248) 370-2065

farrugia@oakland.edu

Program Description

The Graduate Certificate in Communication for Organizations is designed to provide specialization in interpersonal communication and other specialized topics relevant to workplace settings such as leadership and organizational communication.

Additionally, students with bachelor's degrees, especially those with a Bachelor's in Communication, will find the specialized certificate program useful to make them more competitive in the workplace.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Applicants can be admitted to this program in both fall and winter semesters. The application deadlines are:

- February 15 (early) (International students and graduate assistantship deadline), April 15 (regular), and July 15 (late) for fall semester and November 1 for winter semester.
- **International students**

Application Requirements

To be considered for graduate admission, applicants must submit all of the following University and Program application documents by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - All applicants with an overall completed baccalaureate degree GPA of 3.0 or higher from an accredited institution will be considered.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements for the Graduate Certificate in Communication for Organizations, the student is required to complete a minimum of 16 credits in the courses listed below with an overall average of 3.0 or higher. Students who have completed any of these courses for their master's program or another graduate certificate program will be required to take additional courses to complete the 16 credits required for this graduate certificate.

Course requirements (minimum of 16 credits)

Required core course.

- **COM5002 COM Studies Scholarship Communication Studies Scholarship (4 credits)**

Electives (12 credits)

Please choose a total of 12 additional credits from among the following list of courses.

- **COM5410 Advanced Interpersonal Com Advanced Interpersonal Communication (4 credits)**
- **COM5413 Com and Leadership Communication and Leadership (4 credits)**
- **COM5414 Health Com and Close Rel Health Communication and Close Relationships (4 credits)**
- **COM5415 Sexuality and Com Sexuality and Communication (4 credits)**
- **COM5900 Special Topics in COM Special Topics in Communication (4 credits)** (Special topics courses will count towards the certificate requirement when the topics are appropriate to the Certificate and approved by the graduate program coordinator.)
- **COM6212 Com and Cultural Citizenship Communication and Cultural Citizenship (4 credits)**
- **COM6460 Organizational Com Theory Organizational Communication Theory (4 credits)**
- **COM6450 Interpersonal Com Theory Interpersonal Communication Theory (4 credits)**
- **COM6621 Gender, Sexuality Gender, Sexuality, and the Media (4 credits)**
- **COM6625 Audience Rsrh in Media Studies Audience Research in Media Studies (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: At the end of any semester, a graduate student who earns an individual course grade below a B will be reviewed by the graduate program and subject to academic warning, probation or dismissal, according to published program requirements. Additionally, any course in which students earned below a B grade will not count for credit towards the degree. As work progresses two grades below B is grounds for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the Graduate Student Responsibility section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. **A Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Graduate Certificates

Students may earn more than one graduate certificate, but cannot use (double count) any specific course to meet the requirements of two graduate certificate programs.

Transfer Credit

Up to 4 credits of graduate work taken at another institution may be transferred to Oakland to meet part of the 16-credit requirement; these credits may not be used toward another graduate certificate or degree program.

Course Requirements

Courses used toward the graduate certificate requirements must be beyond those earned for the master's degree.

Software Skills

Students must have proficiency in the use of Microsoft Professional Suite (or comparable package) and use of the Internet; students deficient in these skills may take an approved PC skills course which will not apply toward the certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Finance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Finance	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall (map)

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

In this program, students will acquire a better understanding of finance for career advancement. This graduate certificate is ideal for the working professional in any field who is interested in gaining foundational knowledge of the key business disciplines to either advance in their careers or manage their businesses.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission

- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Essentials program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Foundation Courses (6 credits)

Students are expected to have some background in accounting and/or finance through one or more courses in their undergraduate degree. Students lacking this knowledge will be required to take one or more of the foundation courses listed below. These courses will not count towards the certificate program.

For students with the required background through prior course work, the foundation courses will be waived.

- **ACC5110 Financial Accounting** Financial Accounting (3 credits)
- **QMM5100 Quantitative Methods for Mgrs** Quantitative Methods for Managers (3 credits)

Certificate Requirements

Course Requirements (12-15 credits)

- **ACC6000 Financial Reporting & Analysis** Financial Reporting and Analysis (3 credits)
- **FIN5330 Financial Management** Financial Management (3 credits)

- **FIN5600 Investment Analysis Investment Analysis (3 credits)**
- **FIN5680 Financial Modeling Financial Modeling (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**

Electives*

(To be completed only by students waived from **FIN5330 Financial Management**)*

- **FIN5450 Real Estate Invest Analysis Real Estate Investment Analysis (3 credits)**
- **FIN5690 Financial Institutions Mgt Financial Institutions Management (3 credits)**
- **FIN5700 International Financial Mgt International Financial Management (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**
- **FIN5760 Financial Data Analytics Financial Data Analytics (3 credits)**
- **FIN5840 Deep Learn/Neural NW in Fin Deep Learning & Neural Networks in Finance (3 credits)**
- **FIN6055 Portfolio Management Portfolio Management (3 credits)**
- **FIN6070 Fixed Income Analysis Fixed Income Analysis (3 credits)**
- **FIN6250 Derivatives & Risk Management Derivatives and Risk Management (3 credits)**
- **FIN6900 Special Topics in Finance Special Topics in Finance (3 credits)**
- **FIN6970 Independent Study/Finance Independent Study in Finance (1 TO 3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **Good Academic Standing** a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

FinTech

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	FinTech	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

15

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall (map)

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

In this 15-credit certificate program, students will develop specialized data-management skills as they apply what they learn about data mining, artificial intelligence, block chain, cryptocurrencies, deep learning, machine learning, and text analytics to key financial scenarios, including the creation and dynamic implementation of budgets, capital budgeting, valuation, capital structure, and derivatives. Special topics may cover mergers and acquisitions, international financial issues, and bankruptcy prediction.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Fin-Tech program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Foundation Courses

For students with the required background through prior course work, the foundation courses will be waived.

- [ACC5110 Financial Accounting](#) Financial Accounting (3 credits)
- [ACC5180 Accounting Information Systems](#) Accounting Information Systems: Planning and Analysis (3 credits)
or [MIS5240 Enterprise Information Systems](#) Enterprise Information Systems (3 credits)
- [QMM5100 Quantitative Methods for Mgrs](#) Quantitative Methods for Managers (3 credits)
- [FIN5330 Financial Management](#) Financial Management (3 credits)

Certificate Requirements

Course Requirements (15 credits)

Required courses:

- **FIN5600 Investment Analysis Investment Analysis (3 credits)**
- **MIS5460 Business Analytics Business Analytics (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics: Foundations of AI and FinTech Applications (3 credits)**

Choose one course from the following:

- **FIN5680 Financial Modeling Financial Modeling (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Business Leadership	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

Partially Online

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall (map)

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

This 15-credit certificate program is designed for early and mid-career professionals who are preparing to advance to management. In the required courses, students concentrate on building critical competencies through the study and practice of leadership and group performance as well as organizational behavior. Students build on this foundation by selecting from a range of electives to customize the program to match their career-specific goals.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Applicants should have minimally some college algebra course work in their undergraduate degree program
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Leadership program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements (15 credits)

Core courses (6 credits)

Required courses:

- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **ORG6360 Leadership & Group Performance Leadership and Group Performance (3 credits)**

Electives (9 credits)

Choose three courses from the following:

- **ORG6320 Change Management Change Management (3 credits)**
- **ORG6350 Decision Making in Orgs Decision Making in Organizations (3 credits)**

- **ORG6370 Motivation and Work Behavior** Motivation and Work Behavior (3 credits)
- **MGT5260 International Business** International Business (3 credits)
- **MGT5500 Legal Environment of Business** Legal Environment of Business (3 credits)
- **MGT6560 Entrepreneurship** Entrepreneurship (3 credits)
- **MGT6700 Business Ethics** Business Ethics (3 credits)
- **MGT6900 Special Topics in Management** Special Topics in Management (for example 360 Leadership Assessment, Management Analytics, Emerging Market Strategies) (3 credits)
- **ORG6900 Special Topics: Org. Behavior** Special Topics in Organizational Behavior (for example Leading Diversity and Inclusion) (3 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Human Resource Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Human Resource Management	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.sba.oakland.edu>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government recognized standing.
 - Cumulative GPA of 3.0 or above in graduate degree

Admission review and assessment

Admission to the Graduate Certificate in Human Resources Management program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their responses to questions on the Supplemental Program Form, their experience, and their recommendation forms.

Certificate Prerequisites

The graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements (12 credits)

Core Requirements (9 credits)

- **MGT5500 Legal Environment of Business Legal Environment of Business (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **ORG6310 Strategic Human Resource Mgt Strategic Human Resource Management (3 credits)**

Select one (1) additional course from the following:

- **MGT5330 Leading DEI in Organizations Leading Diversity, Equity and Inclusion in Organizations (3 credits)**
- **MGT6700 Business Ethics Business Ethics (3 credits)**
- **ORG6320 Change Management Change Management (3 credits)**
- **ORG6350 Decision Making in Orgs Decision Making in Organizations (3 credits)**

- **ORG6360 Leadership & Group Performance Leadership and Group Performance (3 credits)**
- **ORG6370 Motivation and Work Behavior Motivation and Work Behavior (3 credits)**
- **ORG6700 International Org Behav & HR International Organizational Behavior and Human Resources (3 credits)**
- **ORG6720 Creativity Creativity (3 credits)**
- **ORG6900 Special Topics: Org. Behavior Special Topics in Organizational Behavior (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Information Security Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Information Security Management	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

As organizations move activities and digital assets online, securing the information and assets in cyberspace has evolved into a critical business function. In this program, students will explore strategies necessary to address information security challenges and acquire practical skills in managing an organization's digital assets securely in cyberspace. The program covers cybersecurity fundamentals as well as network security and mobile device security, secure application development, and information security legal compliance and ethics. The demand for skilled professionals in this dynamic and evolving field continues to grow. This program is ideal for working professionals interested in understanding the role of and gaining practical skills in securely managing their organization's digital assets.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Analytics program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Requirements

The Graduate Certificate in Information Security Management is awarded upon satisfactory completion of 15 graduate-level credits in an approved program of study.

Course Requirements (9 credits)

- **MIS5170 Practical Cyber Security Fundamentals** Practical Cyber Security Fundamentals (3 credits)
- **MIS5180 IS Risk Analysis & Security Controls Development** IS Risk Analysis and Security Controls Development (3 credits)
- **MIS5700 IS Security** IS Security (3 credits)

Electives (6 credits)

Choose two from the following approved elective courses:

- **MIS5630 Intro to Networks** Introduction to Networks (3 credits)

- **MIS5640 Network and Security Mgmt Network and Security Management (3 credits)**
- **MIS5750 Mobile Sec & Secure App Dev Mobile Security and Secure Application Development (3 credits)**
- **MIS5760 Simulation in Management Simulation in Management (3 credits)**
- **MIS6120 Info Security Legal Comp Ethic Information Security Legal Compliance and Ethics (3 credits)**
- **MIS6410 IS Privacy IS Privacy (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Marketing

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Marketing	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287 • Fax (248) 370-4275

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

This 15-credit certificate program is tailored for professionals across disciplines who are seeking to expand their business expertise with marketing skills. Through the core requirements, students develop an understanding of marketing research, consumer behavior, and marketing strategy. From there, students select from a range of electives to customize the program to match their career aspirations.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission

- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission review and assessment

Admission to the Graduate Certificate in Marketing program is selective. In making admission recommendations to the graduate certificate program, and the department assesses the potential of applicants for success in the program by examining their graduate records.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements (15 credits)

Course Requirements (9 credits)

- **MKT5600 Marketing Management Marketing Management (3 credits)**
- **MKT6040 Consumer Behavior Consumer Behavior (3 credits)**
- **MKT6050 Marketing Research Marketing Research (3 credits)**

Elective Courses (6 credits)

Choose two from the following approved elective courses:

- **MKT5270 Marketing & Sustainability Mgt Marketing & Sustainability Management (3 credits)**
- **MKT5800 App Data Analytic MKT/Bus Stra Applied Data Analysis for Marketing & Business Strategy (3 credits)**
- **MKT6080 Strategic Marketing Strategic Marketing (3 credits)**

- **MKT6100 Digital Marketing Strategy Digital Marketing Strategy (3 credits)**
- **MKT6200 Distribution Channels Mgt Distribution Channels Management and Logistics (3 credits)**
- **MKT6250 Supply Chain Logistics Supply Chain Logistics (3 credits)**
- **MKT6500 International Marketing International Marketing (3 credits)**
- **MKT6600 Entrepreneurial Marketing Entrepreneurial Marketing (3 credits)**
- **MKT6700 Business to Business Marketing Business to Business Marketing (3 credits)**
- **MKT6730 Product and Brand Management Product and Brand Management (3 credits)**
- **MKT6750 Relations Global Customer and Supplier Relationships in the Global Enterprise (3 credits)**
- **MKT6900 Special Topics: Marketing Special Topics in Marketing (3 credits)**
- **MKT6970 Independent Study in Marketing Independent Study in Marketing (1 TO 3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Analytics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Business Analytics	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

15

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

In this program, students will explore a range of quantitative and computational techniques that have wide use in today's data-driven business world. Analytics includes things like statistical analysis, data visualization, mathematical modeling, management science, data mining, predictive analytics, data science, econometrics, scientific computing, data preparation and cleaning, data warehousing and business intelligence. This graduate certificate is ideal for the working professional in any field who is looking to gain knowledge in business analytics.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester

- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Analytics program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their responses to questions on the Supplemental Program Form, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Foundation Course (3 credits)

Students are expected to have some background in statistics through one or more courses in their undergraduate degree. Students lacking this knowledge will be required to take the foundation course **QMM5100 Quantitative Methods for Mgrs.** This course will not count towards the certificate program.

For students with the required background through prior course work, the foundation course will be waived.

- **QMM 5100 - Quantitative Methods for Managers (3 credits)**

Certificate Requirements

The Graduate Certificate in Business Analytics is awarded upon satisfactory completion of 15 graduate-level credits in an approved program of study.

Course Requirements (9 credits)

- **MIS5460 Business Analytics Business Analytics (3 credits)**
- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics (3 credits)**
- **MIS5480 Adv Analytics with Python Advanced Analytics with Python (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**

Electives (6 credits)

Choose two from the following approved elective courses.

- **MIS5500 Web Analytics Web Analytics (3 credits)**
- **POM5410 Operations Analytics Operations Analytics (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**
- **QMM6400 Management Science Management Science (3 credits)**
- **ECN5050 Econometrics Econometrics (3 credits)**
- **MIS5040 Intro Database/Data Warehouse Introduction to Databases and Data Warehousing (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**
- **STA5001 Stat Methods in Res and Prod Statistical Methods in Research and Production (4 credits) ***
- *** Any STA 5000 level course or above**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Data Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Data Science	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

16

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall (map)

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

This program focuses on understanding big data as well as developing analytical and technical skills to support data-driven decision making. It is interdisciplinary in nature and designed to provide students from different majors with the ability to solve complex problems through the backdrop of data science. Students will explore through hands-on practical experiences various topics such as statistical analysis, machine learning, and big data analytics. The goal of the program is to explicitly augment the focused discipline-specific education of Science, Technology, Engineering, the Arts and Mathematics (STEAM) graduate students with data science skills. This graduate certificate is ideal for the working professional in any field who is looking to gain knowledge in data science.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Data Science program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Foundation Course (6 credits)

Students are expected to have some background in statistics as well as computing/programming through one or more courses in their undergraduate degree. Students lacking statistics knowledge will be required to take the foundation course QMM 5100. Similarly, students lacking the computing/programming knowledge will be required to take MIS 5240. These courses will not count towards the certificate program.

For students with the required background through prior course work, the foundation courses will be waived.

- **QMM 5100 - Quantitative Methods for Managers** (3 credits)
- **MIS 5240 - Enterprise Information Systems** (3 credits)

Certificate Requirements

The Graduate Certificate in Data Science is awarded upon satisfactory completion of a minimum of 16 graduate-level credits in an approved program of study.

Course requirements (16 credits)

Required core courses (10 credits)

- **SDS 5005 - Statistical analyses in Big Data applications** (4 credits)
- **MIS5560 Intro to Data Science Introduction to Data Science** (3 credits)
- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics** (3 credits)

Elective courses (6 to 8 credits)

Choose two from the following approved elective courses:

- **BIO5412 Functional Genomics Bioinforma Functional Genomics and Bioinformatics** (4 credits)
- **MIS5600 Deep Learning/Text Analytics Deep Learning and Text Analytics** (3 credits)
- **STA5221 Multivariate Stat Methods I Multivariate Statistical Methods I** (4 credits)
- **MIS5040 Intro Database/Data Warehouse Introduction to Databases and Data Warehousing** (3 credits)
- **MIS5460 Business Analytics Business Analytics** (3 credits)
- **MIS5480 Adv Analytics with Python Advanced Analytics with Python** (3 credits)
- **MIS6060 Adv Databases/Big Data Mgt Advanced Databases and Big Data Management** (3 credits)
- **PSY5102 Adv Stats for Psy/Behav Res II Advanced Statistics for Psychological & Behavioral Research II** (4 credits)
- **PSY5991 Adv Topics in Psych Statistics Advanced Topics in Statistics for Psychological and Behavioral Research** (4 credits)
- **PH5410 Biostatistical Method/Pub Heal Biostatistical Methods in Public Health** (3 credits)
- **PH5450 Applied Biostats in PH Applied Biostatistics in Public Health** (3 credits)

- **Other analytics/quantitative Graduate electives from related disciplines (with prior approval)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **Good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Essentials

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Business Essentials	Major

Program Type

GR Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall (map)

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

In this program, students will gain foundational knowledge in the fields of accounting, finance, and marketing. Electives in economics, organization behavior, quantitative methods, and operations management offer the flexibility to pursue additional business knowledge that is relevant to a student's goals.

This graduate certificate is ideal for the working professional in any field who is interested in gaining foundational knowledge of the key business disciplines to either advance in their careers or manage their businesses.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester

- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester

International Applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An earned baccalaureate degree from a regionally accredited institution OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Applicants should have minimally some college algebra coursework in their undergraduate degree program
 - Curriculum Vitae or Resumé

Admission Review and Assessment

Admission to the Graduate Certificate in Business Essentials program is selective. In making admission recommendations to the graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

The Graduate Certificate in Business Essentials is awarded upon satisfactory completion of 15 graduate-level credits in an approved program of study.

Course requirements (9 credits)

- **ACC5110 Financial Accounting Financial Accounting (3 credits)**
- **FIN5330 Financial Management Financial Management (3 credits)**
- **MKT5600 Marketing Management Marketing Management (3 credits)**

Electives (6 credits)

Choose two from the following approved elective courses.

- **ECN5210 Economics for Managers Economics for Managers (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers (3 credits)**
- **POM5210 Operations Management Operations Management (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Lean Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Lean Leadership	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

16

Delivery Method Required

Fully Hyflex

Summer Semesters

0

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/edleadership

Coordinator:

Shannon Flumerfelt

475C Pawley Hall

(248) 495-4312

flumerfe@oakland.edu

Program Description

The Lean Leadership Graduate Certificate is designed for those practicing or emerging leaders from any sector or any workplace who desire to extend, enrich or establish leadership knowledge, skills, and abilities through mastery of Lean tenets, tools, and competencies.

The Lean Leadership Graduate Certificate provides a workplace-related hybrid intensive learning experience for you. Program features include 1) learning through professionally sequenced Lean Leadership knowledge useful in any workplace setting or sector; 2) mastering core Lean Leadership competencies, such as change leadership, critical thinking, and communication; 3) benefitting from our world-class, experienced, interdisciplinary Lean faculty; 4) accelerating with hands-on, experiential projects, simulations, case studies, site visits, and guest lecturers; and 5) participating in the flexibility of hybrid online learning with three on-ground intensive sessions per semester. It is also possible to complete a Lean Leadership Cognate for the Ed.D. in Leadership or the Ph.D. in Educational Leadership upon admission to either doctoral program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements:**
 - **Requirements for Recommendations:**
 - Applicants must have earned a baccalaureate degree from a regionally accredited institution or proof of degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 - Applicants should have a minimum overall undergraduate grade point average of 3.0.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Course Requirements (16 credits)

a. Core Requirements (16 credits)

Fall Semester:

- **HRD6801 Intro of Lean Leadership I Introduction and Theories of Lean Leadership I (4 credits)**
- **HRD6950 Lean Leadership Intern I Lean Leadership Internship I (2 credits)**

Winter Semester:

- **HRD6802 Intro of Lean Leadership II Introduction and Theories of Lean Leadership II (4 credits)**
- **HRD6951 Lean Leadership Intern II Lean Leadership Internship II (2 credits)**

Summer I Semester:

- **HRD6803 Methods of Lean Leadership I Methods of Lean Leadership I (4 credits)**

Summer II Semester (Ed.D. in Leadership or Ph.D. in Educational Leadership Cognate Only)

- **HRD6804 Methods of Lean Leadership II Methods of Lean Leadership II (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Play Therapy

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Play Therapy	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Counseling

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Counseling

491B Pawley Hall ([map](#))

(248) 370-4179 • Fax (248) 370-4141

<http://www.oakland.edu/counseling/>

Coordinator:

Rebecca Vannest

491C Pawley Hall

(248) 370-2638

rvannest@oakland.edu

Program Description

The Graduate Certificate in Play Therapy prepares individuals to be a Registered Play Therapist (RPT) or a School Based-Registered Play Therapist (SB-RPT). Includes instruction in child development, theories of personality, psychotherapy, child and adolescent psychopathology, and ethics

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- March 15 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. Additional department application requirements

- **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability.
- Submission of official or unofficial transcript of graduate degree or credits.
- Completion or capstone enrollment in a graduate degree in a mental health discipline or commensurate graduate experience as determined by the Department of Counseling.
- Essay of 500 words establishing commitment and interest in the field of child and adolescent mental health and play therapy, in which students describe your past work experience and how you hope to utilize this training professionally.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their graduate records, essay, , prerequisite courses and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have a graduate cumulative grade point average (GPA) of 3.0 or above.

Graduate Certificate Requirements (12 credits)

Course Requirements (12 Credits)

CNS6030 Group Counseling Group Counseling (4 credits) During the course of this semester, students will learn about the lifespan development of childhood and adolescence. Play therapy techniques, demonstrations, and experiential role plays such as sand tray therapy will be integrated into the course.

CNS6035 Adv Child & Adol Play Therapy Advanced Child & Adolescent Play Therapy (4 credits) During the course of this semester, students will learn about the lifespan development of childhood and adolescence. Play therapy techniques, demonstrations, and experiential role plays such as group play therapy will be integrated into the course.

CNS7931 Fieldwork in Child & Adol Ther Fieldwork in Child & Adolescent Play Therapy (4 credits) Students in the course will provide pro bono play therapy sessions to children and adolescents from the community under supervision. All play therapy services will be provided at the SEHS Counseling Center.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Applied Behavior Analysis: Basic

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Applied Behavior Major Analysis: Basic	

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total	Delivery Method	Required
26	In Person	Summer Semesters
		2

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The Graduate Certificate in Applied Behavior Analysis: Basic and the area of concentration within the corresponding degree program, meet the coursework requirements of the Behavior Analysts Certification Board (BACB), one of the components leading to the Board Certified Behavior Analyst (BCBA) credential. The course sequence has been approved under both the current and the new BACB standards, effective January 2016.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review. Applicant must complete an interview as part of the application process, which takes place in the winter semester PRIOR to the start of the fall semester for which the student is applying.

- April 15 for following year
- **International applicants**

Note: Applicants for the Graduate Certificate in Applied Behavior Analysis should contact the Special Education Coordinator Dr. Michael Kranak (kranak@oakland.edu) for additional information.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department application requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - A copy of any professional credentials, such as state or professional license.
 - A personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.
 - Requirements for recommendations:
The recommendation forms must be from individuals who can attest to the applicant's potential for successful graduate study.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Admission to the graduate certificate in Applied Behavior Analysis (ABA) is competitive. A limited number of students will be admitted and interviews may be required for applicants under consideration. Since this program is rigorous in coursework, candidates should be able to articulate their commitment to the program. During the interview, candidates must be able to demonstrate a reasonable level of awareness of the principles of applied behavior analysis, effective interpersonal skills, and discuss past experiences that highlight their commitment to high quality work. As part of the interview, candidates may be asked to provide a writing sample in response to a question

or questions posed by the committee. The student must also be aware that they must hold a master's degree prior to sitting for the board exam. If the degree is not in a BACB pre-approved area (Behavior Analysis, Education, or Psychology), it is the student's responsibility to make a case to the BACB for an exception.

Certificate Requirements (25 credits)

The Graduate Certificate in Applied Behavior Analysis: Basic is awarded upon satisfactory completion of 25 credits in an approved program of study. This certificate is designed to include only the course content required by the **Behavior Analyst Certification Board, Inc. (BACB)**. In order to be eligible for the BCBA certificate, the student must complete 2000 supervised practicum hours ("Supervised Independent Fieldwork") according to BACB requirements and pass the national exam. Arrangement of the practicum hours is the responsibility of the student. The student must also hold a master's degree prior to sitting for the exam. If the degree is not in a BACB pre-approved area, it is the student's responsibility to make a case to the BACB for an exception.

Required Courses (25 credits)

- **SE6569 Foundations of ABA Foundations of ABA (3 Credits)**
- **SE6570 Concepts and Principles of ABA Concepts and Principles of ABA (3 credits)**
- **SE6571 Behavioral Assessment Behavioral Assessment (3 credits)**
- **SE6572 Behavior Change Procedures Behavior Change Procedures (4 credits)**
- **SE6573 Research Methods Research Methods (4 credits)**
- **SE6574 Ethics Ethics (3 credits)**
- **SE6575 Personnel Sup and Mgmt Personnel Supervision and Management (3 credits)**
- **SE6576 Experimental Analysis Behavior Experimental Analysis of Behavior (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation and Commencement specifics that students must complete on time, click [here](#).

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students

have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Autism for Multiple Disciplines

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Autism for Multiple Disciplines	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

24

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for this graduate certificate program lead to an internal certificate only and are not intended to fulfill requirements for licensing by the State or any professional organization. The course selection is flexible to allow individuals to enhance their professional expertise or personal knowledge in the area of autism.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications may not be sent to departments for admission review.

- July 15 for fall semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - A copy of any professional credentials, such as state or professional license
 - A personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.
 - **Requirements for recommendations:**
The recommendation forms must be from individuals who can attest to the applicant's potential for successful graduate study.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements

The Graduate Certificate in Autism for Multiple Disciplines is awarded upon satisfactory completion of 24 credits in an approved program of study. This certificate is designed for individuals who wish to increase their knowledge and expertise in autism but are not seeking the State-approved teaching endorsement.

Course Requirements (24 credits)

a. Core Courses (4 credits)

- **SE6502 Legal Issues in Spec Educ** Legal Issues in Special Education (4 credits)

b. Electives/Concentration (20 credits)

(Other courses may be approved at the adviser's discretion as new courses are developed.)

- **SE6527 ASD: Educational Procedures** Educational Procedures for Students with Autism Spectrum Disorder (3 credits)
- **SE6559 Overview of ASD** Overview of Autism Spectrum Disorder (3 credits) (May be required at the adviser's discretion.)
- **SE6578 ASD: Commun/Language Issues** Communication and Language Issues in Autism Spectrum Disorder (3 credits)
- **SE6579 ASD: Behavioral/Social Issues** Behavioral and Social Issues in Students with Autism Spectrum Disorder (3 credits)
- **SE6596 Collaboration/Consultation:ASD** Collaboration and Consultation: Autism Spectrum Disorder (3 credits)
- **SE6600 Quality of Life** Quality of Life (4 credits)
- **SE6640 Lives of Adolescent/Adult/ASD** The Lives of Adolescents and Adults with Autism Spectrum Disorder (4 credits)
- **SE6641 Counseling Issues/Spec Needs** Counseling Issues for Special Needs (4 credits)
- **SE6900 Selected Topics: Special Ed** Selected Topics in Special Education (1 TO 4 credits)
(Most applicable but must have adviser approval.)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click Graduation and Commencement.

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students

have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Autism Spectrum Disorder-Advanced

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Autism Spectrum Disorder-Advanced	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

20

Delivery Method Required

Fully Online

Summer Semesters

1

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for the graduate certificate program and the area of concentration within the corresponding degree program, meet the state requirements for an endorsement in Autism Spectrum Disorder (ASD). Completion of a practicum is required for those seeking an endorsement from the state. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications may not be sent to departments for admission review.

- July 15 for fall semester only
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - School of Education and Human Services **Supplemental Application**
 - Photocopy of teaching certificate
 - Personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements (36 credits)

Foundation requirements (up to 16 credits)

May be required depending on an applicant's background

The Graduate Certificate in Autism Spectrum Disorder Education: Advanced is awarded upon satisfactory completion of 20 credits in an approved program of study. This certificate is intended for individuals who already hold a prior special education endorsement in Michigan. Meets State requirements for the teaching endorsement.

Course Requirements (20 credits)

The following are pedagogical requirements to complete prior to field experience:

- **SE6527 ASD: Educational Procedures** Educational Procedures for Students with Autism Spectrum Disorder (3 credits)
- **SE6559 Overview of ASD** Overview of Autism Spectrum Disorder (3 credits)
- **SE6578 ASD: Commun/Language Issues** Communication and Language Issues in Autism Spectrum Disorder (3 credits)
- **SE6579 ASD: Behavioral/Social Issues** Behavioral and Social Issues in Students with Autism Spectrum Disorder (3 credits)
- **SE6596 Collaboration/Consultation:ASD** Collaboration and Consultation: Autism Spectrum Disorder (3 credits)
- **SE6960 Practicum: ASD K-12** Practicum Field Experience: Autism Spectrum Disorder K-12 (5 credits) (Required of all students seeking the state-approved teaching endorsement.)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click **Graduation and Commencement**.

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Autism Spectrum Disorder-Basic

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Autism Spectrum Disorder-Basic	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

36

Delivery Method Required

Fully Online

Summer Semesters
2

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for the graduate certificate program and the area of concentration within the corresponding degree program meet the state requirements for an endorsement in Autism Spectrum Disorder (ASD). Completion of a practicum is required for those seeking an endorsement from the state. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications may not be sent to departments for admission review.

- July 15 for fall semester only
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - School of Education and Human Services **Supplemental Application**
 - Photocopy of teaching certificate
 - Personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program.
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0 but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements (36 credits)

Foundation requirements (up to 8 credits)

May be required depending on an applicant's background

The Graduate Certificate in Autism Spectrum Disorder Education: Basic is awarded upon satisfactory completion of 28 credits in an approved program of study. This certificate is intended for individuals who hold or are eligible for a valid teaching certificate in the state of Michigan by the time of program completion. Meets state requirements for the teaching endorsement.

Course Requirements (28 credits)

The following are pedagogical requirements to complete prior to field experience:

- **SE6502 Legal Issues in Spec Educ Legal Issues in Special Education (4 credits)**
- **SE6524 Assessment in Special Educatn Assessment in Special Education (4 credits)**
- **SE6527 ASD: Educational Procedures Educational Procedures for Students with Autism Spectrum Disorder (3 credits)**
- **SE6559 Overview of ASD Overview of Autism Spectrum Disorder (3 credits)**
- **SE6578 ASD: Commun/Language Issues Communication and Language Issues in Autism Spectrum Disorder (3 credits)**
- **SE6579 ASD: Behavioral/Social Issues Behavioral and Social Issues in Students with Autism Spectrum Disorder (3 credits)**
- **SE6596 Collaboration/Consultation:ASD Collaboration and Consultation: Autism Spectrum Disorder (3 credits)**
- **SE6960 Practicum: ASD K-12 Practicum Field Experience: Autism Spectrum Disorder K-12 (5 credits)** (Required of all students seeking the state-approved teaching endorsement in Autism Spectrum Disorder).

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click [Graduation and Commencement](#).

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Emotional Impairment: Advanced

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Emotional Impairment: Advanced	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Developmnt/Child Studies

Credit Total

20

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

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Coordinator:

Erica Ruegg

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ruegg@oakland.edu

Program Description

The courses for the Graduate Certificate in Emotional Impairment: Advanced program and the area of concentration within the corresponding degree program meet the State requirements for an endorsement in Emotional Impairment (EI). Completion of a practicum is required for those seeking an endorsement from the state. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by July 15. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester only
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - School of Education and Human Services **Supplemental Application**
 - Photocopy of teaching certificate
 - Personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program.
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements

Foundation requirements (up to 16 credits)

May be required depending on an applicant's background

The Graduate Certificate in Emotional Impairment: Advanced is awarded upon satisfactory completion of 20 credits in an approved program of study. Applicants for this program typically hold one or more special education endorsements and have met the Special Education core requirements or approved equivalents.

Course Requirements (20 credits)

The following are pedagogical requirements to complete prior to field experience:

- **SE6510 Students w/Behavior and/or EI Students with Behavioral and/or Emotional Impairment (4 credits)**
- **SE6517 Lang and Except Child & Youth Language and Exceptional Children and Youth (4 credits)**
- **SE6520 Ed Procedures for Students/EI Educational Procedures for Students with Emotional Impairment (4 credits)**
- **SE6620 Adv Intervention Resources/EI Advanced Interventions and Resources for Students with Emotional Impairment (4 credits)**
- **SE6962 Practicum: EI (K-12) Practicum Field Experience: Emotional Impairment K-12 (4 credits)** (Required of all students seeking the state-approved teaching endorsement in Emotional Impairment)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click **Graduation and Commencement**.

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Emotional Impairment: Basic

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Emotional Impairment: Basic	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

32

Delivery Method Required

Fully Online

Summer Semesters

2

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for the Graduate Certificate in Emotional Impairment: Basic program and the area of concentration within the corresponding degree program meet the State requirements for an endorsement in Emotional Impairment (EI). Completion of a practicum is required for those seeking an endorsement from the state. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications may not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester

- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - School of Education and Human Services **Supplemental Application**
 - Photocopy of teaching certificate
 - Personal statement that includes commitment to program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program.
 - Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than B but with an appropriate academic background and strong letters of recommendation may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements (32 credits)

Foundation requirements (up to 8 credits)

May be required depending on an applicant's background

The Graduate Certificate in Emotional Impairment: Basic is awarded upon satisfactory completion of 32 credits in an approved program of study. Intended for certified teachers who have not met the Special Education core competencies or their equivalents. Documented course equivalents from other universities may be considered.

Course Requirements (32 credits)

a. Core Courses (12 credits)

- **SE6502 Legal Issues in Spec Educ Legal Issues in Special Education (4 credits)**
- **SE6518 Org Mgt of Instruct Behav/Env Organization and Management of Instructional Behaviors and Environments (4 credits)**
- **SE6524 Assessment in Special Educatn Assessment in Special Education (4 credits)**

b. EI Concentration Courses (20 credits)

The following are pedagogical requirements to complete prior to field experience:

- **SE6510 Students w/Behavior and/or EI Students with Behavioral and/or Emotional Impairment (4 credits)**
- **SE6517 Lang and Except Child & Youth Language and Exceptional Children and Youth (4 credits)**
- **SE6520 Ed Procedures for Students/EI Educational Procedures for Students with Emotional Impairment (4 credits)**
- **SE6620 Adv Intervention Resources/EI Advanced Interventions and Resources for Students with Emotional Impairment (4 credits)**
- **SE6962 Practicum: EI (K-12) Practicum Field Experience: Emotional Impairment K-12 (4 credits)** (Required of all students seeking the state-approved teaching endorsement in Emotional Impairment)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click Graduation and Commencement.

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Specific Learning Disability: Basic

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Specific Learning Disability: Basic	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

32

Delivery Method Required

Fully Online

Summer Semesters
2

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for the graduate certificate program and the area of concentration within the corresponding degree program meet the state requirements for an endorsement in Specific Learning Disability. Completion of a practicum is required for those seeking an endorsement from the State. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications may not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines.

1. Graduate application requirements
2. **Additional department application requirements**
 - School of Education and Human Services Supplemental Application
 - Copy of current (or most recent) teaching certificate or verification of pending certificate
 - Goal statement which includes the reason for application, the intended focus of graduate study, a description of professional experiences and accomplishments, and professional and career goals.
 - **Requirements for Recommendations**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

To be admitted to the graduate certificate program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Graduate Certificate Requirements (32 credits)

Foundation requirements (up to 8 credits)

May be required depending on an applicant's background

The Graduate Certificate in Specific Learning Disability: Basic is awarded upon satisfactory completion of 32 credits in an approved program of study. It is intended for those who have not met all of the Special Education Core Competencies. Documented course equivalents from other universities may be considered.

Course Requirements (32 credits)

a. Core Courses (12 credits)

- **SE6502 Legal Issues in Spec Educ Legal Issues in Special Education (4 credits)**
- **SE6518 Org Mgt of Instruct Behav/Env Organization and Management of Instructional Behaviors and Environments (4 credits)**
- **SE6524 Assessment in Special Educatn Assessment in Special Education (4 credits)**

b. SLD Concentration (20 credits)

- **RDG5210 Inquiry-Based Literacy Instruc Inquiry-Based Literacy Instruction (4 credits)**
- **SE6517 Lang and Except Child & Youth Language and Exceptional Children and Youth (4 credits)**
- **SE6532 Intro/Specific Learning Disab Introduction to Specific Learning Disability (4 credits)**
- **SE6533 Adv Ed Proc/Students with SLD Advanced Educational Procedures for Students with a Specific Learning Disability (4 credits)**
- **SE6961 Prac: Specif Lrning Disab K-12 Practicum Field Experience: Specific Learning Disability K-12 (4 credits)**
(Required of all students seeking the state-approved teaching endorsement in Specific Learning Disability)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

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Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

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For Graduation specifics that students must complete on time, click Graduation and Commencement.

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Specific Learning Disability: Advanced

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Specific Learning Disability: Advanced	Major

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

20

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The courses for the Graduate Certificate in Specific Learning Disability: Advanced program and the area of concentration within the corresponding degree program meet the state requirements for an endorsement in Specific Learning Disability. Completion of a practicum is required for those seeking an endorsement from the State. Students should contact the program coordinator to confirm application procedures for the practicum and submission deadlines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by July 15. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - School of Education and Human Services [Supplemental Application](#)
 - Photocopy of teaching certificate or verification of pending certificate
 - Personal statement that includes commitment to the program, related experience and particular skills that would contribute to success in the program, and professional goals subsequent to completion of the program.
 - **Requirements for Recommendations**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

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Graduate Certificate Requirements (20 credits)

Foundation requirements (up to 16 credits)

May be required depending on an applicant's background

The Graduate Certificate in Specific Learning Disability: Advanced is awarded upon satisfactory completion of 20 credits in an approved program of study. Applicants for this program typically hold one or more special education endorsements, and it is assumed that the Special Education Core Requirements have been met.

Course Requirements (20 credits)

- [RDG5210 Inquiry-Based Literacy Instruc](#) [Inquiry-Based Literacy Instruction](#) (4 credits)

- **SE6517 Lang and Except Child & Youth Language and Exceptional Children and Youth (4 credits)**
- **SE6532 Intro/Specific Learning Disab Introduction to Specific Learning Disability (4 credits)**
- **SE6533 Adv Ed Proc/Students with SLD Advanced Educational Procedures for Students with a Specific Learning Disability (4 credits)**
- **SE6961 Prac: Specif Lrning Disab K-12 Practicum Field Experience: Specific Learning Disability K-12 (4 credits)**
(Required of all students seeking the state-approved teaching endorsement in Specific Learning Disability)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation specifics that students must complete on time, click [Graduation and Commencement](#).

Relationship to the Master of Education in Special Education

Requirements for the certificate and endorsement programs are contained within the degree programs. Courses taken in an endorsement or certificate program may apply to the M.Ed. if the courses are transferred to the M.Ed. program before completion of the endorsement/certificate program (i.e., requirement is students have a three-year time frame for completion of the certificate program) and if courses are taken within the six-year time frame allowed for the degree.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Human Diversity, Inclusion and Social Justice

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Human Diversity, Major Inclusion and Social Justice	

Program Type

GR Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

16

Delivery Method

In Person

Required

Summer Semesters

1

Requirements

Program Requirements

Department of Organizational Leadership

475E Pawley Hall (map)

(248) 370-4109 • Fax (248) 370-4095

www.oakland.edu/orgleadership

Program Coordinator:

Dr. Chaunda L. Scott

495B Pawley Hall

cscott@oakland.edu

Program Description

The Graduate Certificate in Human Diversity, Inclusion, and Social Justice is associated with the Master of Organizational Leadership program housed in the School of Education and Human Services. The goal of this certificate is to provide useful diversity management policies and practices that can be utilized in a variety of organizational settings. It aims to address organizational expectations, linking diversity and inclusion goals to organizational objectives. It also seeks to enhance participants' cultural and professional competence through knowledge and experience in promoting an ongoing commitment to professional development and mastery.

This timely graduate certificate program is also unique in that presently there are no other graduate certificate programs in the state of Michigan quite like this. Moreover, this program provides an opportunity for graduate students and professionals to customize human diversity and social justice learning by allowing them to select approved graduate elective courses that are aligned with their

graduate studies, career field and future career interests. The class offerings may be taught in one of the three formats - in-person lecture, blended, and fully online.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Current Deadlines

- March 15th and July 15th for fall semester
- November 15th for winter semester
- **International applicants**
- The Graduate Certificate in Human Diversity, Inclusion, and Social Justice does not admit students during the summer semester.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. Additional department application requirements
 - An official transcript for undergraduate and graduate coursework showing a bachelor's degree in an academic discipline that is from a regionally accredited institution with a cumulative grade point average of a 3.0 or better
 - A formal statement consisting of 1,000 words detailing work and life experiences and career goals that has led to the applicant's desire to pursue the program
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability
 - A current resume

After documents have been reviewed and approved, applicant will be invited for an interview with the graduate certificate coordinator. Shortly following this interview, applicants will be notified by email regarding the status of the application.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements (16 credits)

Students and professionals who qualify for admission to the certificate program must complete four approved graduate level courses totaling 16 credits with the grade of 3.0 or above. Student enrolled in the Department of Organizational Leadership Ed.D. Program may also extend their learning and complete a human diversity inclusion and social justice cognate totaling 20 credits, five courses. Students in the Ed.D. program interested in this option should contact the coordinator for more information regarding the specific requirements.

- Course requirements (16 credits) for students and professionals who have completed a bachelor's degree with an overall GPA of 3.0 or above.
- Course requirements (20 credits) for Ed.D. students.

a. Core Requirements (8 credits)

The required core courses for this four-course program are:

- **HRD6140 Intro Human Diversity Inclusion Introduction to Human Diversity Inclusion and Social Justice Perspectives** (4 credits)
 - Which is the first course graduate students will take in this certificate program.
- **EL6160 Human Diversity Capstone Human Diversity Inclusion and Social Justice Capstone Seminar** (4 credits)
 - Will be the last course graduate students will take in this certificate program.

b. Electives (8 credits)

With the permission of the program coordinator, the remaining two/three elective courses can be selected from interdisciplinary academic departments, including, but not limited to and depending on availability:

Department of Counseling

- **CNS5060 Diversity/Social Justice Issue Diversity and Social Justice Issues**
 - Fall Term Year One
- **CNS5060 Diversity/Social Justice Issue Diversity and Social Justice Issues**
 - Winter Term Year Two

Department of Human Development and Educational Studies

- **SE5501 Intro Student w/Special Needs Introduction to the Student with Special Needs**
 - Fall Term Year One
- **SE6559 Overview of ASD Overview of Autism Spectrum Disorder**
 - Fall Term Year Two

Department of Organizational Leadership

- **EL6900 Current Topics/Higher Ed School, Special Topics: Women & Gender Issues in Higher Education**
 - Winter Term Year One
- **EL6681 Higher Ed & Ed Equity Higher Education and Educational Equity**
 - Fall Term Year Two
- **HRD6160 Spirituality and Racism Spirituality and Racism**
 - Fall Term Year One
- **HRD6160 Spirituality and Racism Spirituality and Racism**
 - Winter Term Year Two

Department of Teaching and Learning

- **EST6100 Diverse Learners/Curriculum Diverse Learners and the Curriculum**
 - Fall Term Year Two
- **Note: Summer courses may be an option depending on availability.**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Foundations of Computer Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Foundations of Computer Science	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

16

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.oakland.edu/secs/departments/cse/>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description:

The Graduate Certificate in the Foundations of Computer Science is intended for students seeking to upskill from an engineering, math, or other non-computing background to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE graduate program. This foundational certificate provides training in programming, algorithms, systems, and software design to prepare you to dive into more technical certificates and skill sets.

CSE offers a series of stackable certificate programs that can lead to a M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisite courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **Good Academic Standing**).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Required courses:

- **CSI5500 Operating Systems I Operating Systems I (4 credits)**
- **CSI5610 Adv Data Structures/Algorithms Advanced Data Structures and Algorithms (4 credits)**

b. Elective Course (4 credits)

Choose one of the following courses:

- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA, except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Machine Learning

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Machine Learning	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.oakland.edu/secs/departments/cse/>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description:

The Graduate Certificate in Machine Learning is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadline.

1. [Graduate application requirements](#)
2. [Additional department application requirements](#)

- Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisite courses can be requested.
- Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
- **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,

- satisfy all requirements concerning academic progress (see **good Academic Standing**).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Required courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

b. Elective Course (4 credits)

Choose one course from the following:

- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5180 Natural Language Processing Natural Language Processing (4 credits)**
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**
- **ISE5002 Engineering Operations Rsrch Engineering Operations Research (3 credits)**
- **ISE5430 EGR Ops Rsrch/Deterministic Engineering Operations Research - Deterministic Models (4 credits)**
- **ISE5431 Engr Ops Rsrch/Stochastic Mods Engineering Operations Research - Stochastic Models (4 credits)**
- **ISE5517 Stats Methods in Engineering Statistical Methods in Engineering (4 credits)**
- **ME5310 Machine Learning Engineering D Machine Learning Engineering Design (4 credits)**

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA, except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Machine Vision and Robotics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Machine Vision and Robotics	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.oakland.edu/secs/departments/cse/>

Coordinator

Guangzhi Qu

546 Engineering Center

(248) 370-2690

gqu@oakland.edu

Program Description:

The Graduate Certificate in the Machine Vision and Robotics is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as that need them to maximize career success.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. **Additional department application requirements**

- Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisite courses can be requested.
- Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
- **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Choose two courses from the following:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**

or **CSI5170 Machine Learning Machine Learning (4 credits)**

- **CSI5550 Visual Computing Visual Computing (4 credits)**

or **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits)**

b. Elective Course (4 credits)

Choose one course from the following:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits) ***
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits) ***
- **CSI5180 Natural Language Processing Natural Language Processing (4 credits)**
- **CSI6550 Advanced Visual Computing Advanced Visual Computing (4 credits)**
- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits) ***
- **ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6440 Adaptive Control Systems Adaptive Control Systems (4 credits)**
- **ECE6460 Autonomous Vehicle Systems II Autonomous Vehicle Systems II (4 credits)**
- **ECE 6467 - Dynamics and Control of Robot Manipulators (4 credits)**
- **ISE5422 Robotic Systems Robotic Systems (4 credits)**
- ♦If not selected as a core course

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA, except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Smart Manufacturing and Industry 4.0

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Smart Manufacturing and Industry 4.0	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.cse.secs.oakland.edu>

Coordinator

Guangzhi Qu

546 Engineering Center

(248) 370-2690

gqu@oakland.edu

Program Description:

The Graduate Certificate in Smart Manufacturing and Industry 4.0 is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program, or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. [Additional department application requirements](#)
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisite courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see [Good Academic Standing](#)).

Course requirements (12 Credits)

a. Required Courses (8 credits)

Required courses:

- **ISE5512 Artificial Intell in Mfg** Artificial Intelligence in Manufacturing (4 credits)
- and
- **CSI5130 Artificial Intelligence** Artificial Intelligence (4 credits) or
- **CSI5170 Machine Learning** Machine Learning (4 credits)

b. Elective course (4 credits)

Choose one course from the following:

- **CSI5130 Artificial Intelligence** Artificial Intelligence (4 credits) *
- **CSI5170 Machine Learning** Machine Learning (4 credits) *
- **CSI5240 Cloud Computing** Cloud Computing (4 credits)
- **CSI5460 Information Security** Information Security (4 credits)
- **ISE5002 Engineering Operations Rsrch** Engineering Operations Research (3 credits)
- **ISE5410 Supply Chain Modeling/Analysis** Supply Chain Modeling and Analysis (4 credits)
- **ISE5422 Robotic Systems** Robotic Systems (4 credits)
- **ISE5456 Engineering Risk Analysis** Engineering Risk Analysis (4 credits)
- **ISE5464 Design Mfg/Assembly Analysis** Design for Manufacturing and Assembly Analysis (4 credits)
- **ISE5517 Stats Methods in Engineering** Statistical Methods in Engineering (4 credits)
- **SYS 5900 - ST: Virtual and Augmented Reality** (4 credits)

◆ If not selected as a core course.

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

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Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
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- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA, except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Artificial Intelligence for IT Operations

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Artificial Intelligence for IT Operations	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.oakland.edu/secs/departments/cse/>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description

The certificate in Artificial Intelligence for IT Operations is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with the industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisites courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **Good academic standing**).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Required course:

- **CSI5150 AI for IT Operations AI for IT Operations (4 credits)**

Choose one of the following courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

b. Elective Course (4 credits)

Select one course from any of the following:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)***
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)***
- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5300 Software Prototypg/Validation Software Prototyping and Validation (4 credits)**
- **CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5410 Software Proj Plan/Mgmt/Maint Software Project Planning, Management and Maintenance (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**

◆If not selected as a core course.

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Augmented and Virtual Reality,

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Augmented and Virtual Reality,	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.cse.secs.oakland.edu/>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description

The Graduate Certificate in Augmented and Virtual Reality is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to a M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with the industry to develop stackable certificates featuring cutting-edge skills in areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisites courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **Good Academic Standing**).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Required course:

- **SYS5900 Special Topics Virtual and Augmented Reality (4 credits)**

Choose one of the following:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

b. Elective Course (4 credits)

Select one course from the following:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)***
- **CSI5170 Machine Learning Machine Learning (4 credits)***
- **CSI5550 Visual Computing Visual Computing (4 credits)**
- **CSI5900 Special Topics ST: AI-Human Interaction (4 credits)**
- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)**
- **SYS5900 Special Topics ST: Automotive User Experience (4 credits)**

◆ If not selected as a core course.

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make

satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

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In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Edge AI and IoT

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Edge AI and IoT	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total	Delivery Method	Required
12	In Person	Summer Semesters
		0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))
(248) 370-2200 • Fax (248) 370-4625
<https://www.cse.secs.oakland.edu/>

Coordinator

Lanyu Xu
546 Engineering Center
(248) 370-4079
lxu@oakland.edu

Program Description

The Graduate Certificate in the Edge AI and Internet of Things is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisites courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **good Academic Standing**).

Course requirements (12 Credits)

a. Required courses (8 credits)

- **CSI5100 Ethics & Bias in AI Ethics & Bias in AI (4 credits)**
- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**

b. Elective course (4 credits)

Select one course from the following:

- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5470 Computer Networks Computer Networks (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **ECE6212 Wireless Communications Wireless Communications (4 credits)**
- These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship

- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Embedded Artificial Intelligence

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Embedded Artificial Intelligence	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.cse.secs.oakland.edu>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description:

The Graduate Certificate in Embedded AI is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificates programs that can lead to a M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates, featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisite courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
 - **Recommendation for Graduate Admission form:**
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Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,

- satisfy all requirements concerning academic progress (see **Good Academic Standing**).

Course Requirements (12 Credits)

a. Core Requirements (8 credits)

Required courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **ECE5740 Embedded AI Embedded Artificial Intelligence (4 credits)**
- **ECE5900 Special Topics ST: Embedded Artificial Intelligence (4 credits)**

b. Elective Course (4 credits)

Choose one of the following courses:

- **CSI5100 Ethics & Bias in AI Ethics & Bias in AI (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**
- **CSI5360 Concurrent/Multi-Core Prgmng Concurrent and Multi-Core Programming (4 credits)**
- **CSI5420 Rapid Proto & Compont Software Rapid Prototyping and Component Software (4 credits)**
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE5720 Microproc-Based Sys Design Microprocessor-Based Systems Design (4 credits)**
- **ECE5731 Fund of Embedded Sys Design Fundamentals of Embedded System Design (4 credits)**
- **ECE5770 GPU Accelerated Computing GPU Accelerated Computing (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**
- **ECE6712 Parallel Embed Comp Architec Parallel Embedded Computer Architecture (4 credits)**
- **ECE6742 DSP in Embedded Systems DSP in Embedded Systems (4 credits)**
- **ECE6745 Real-Time Computing Systems Real-Time Computing Systems (4 credits)**

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate

program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

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Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be

applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Ethics of Artificial Intelligence

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Ethics of Artificial Intelligence	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))
(248) 370-2200 • Fax (248) 370-4625
<https://www.cse.secs.oakland.edu/>

Coordinator

Lanyu Xu
546 Engineering Center
(248) 370-4079
lxu@oakland.edu

Program Description

The Graduate Certificate in Ethics of AI is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisites courses can be requested.
 - Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **good Academic Standing**).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Required course:

- **CSI5100 Ethics & Bias in AI Ethics & Bias in AI (4 credits)**

Choose one of the following courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

b. Elective Courses (4 credits)

Choose one of the following courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)***
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)***
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**
- **CSI5900 Special Topics ST: AI-Human Interaction (4 credits)**

◇If not selected as a core course.

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs, the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Artificial Intelligence for Cyber Security and Trustworthy AI

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Artificial Intelligence for Cyber Security and Trustworthy AI	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrcl & Comptr Engineering

Credit Total

12

Delivery Method Required

in person

Summer Semesters

0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.oakland.edu/secs/departments/cse/>

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description

The Graduate Certificate in Artificial Intelligence for Cyber Security and Trustworthy AI is intended for students seeking to upskill from engineering, computer science, math, or other non-computing background, to be ready for future coursework through a CSE graduate degree program or additional certificates to stack into a CSE master program.

CSE offers a series of stackable certificate programs that can lead to an M.S. degree in Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. [Additional department application requirements](#)

- Applicants must possess an undergraduate degree in any engineering or computer science or related disciplines with an overall GPA of 3.0 or higher. Applicants from outside the above fields may apply and the completion of pre-requisites courses can be requested.
- **Recommendation for Graduate Admission form:**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability
- Completion of a bachelor's degree from a U.S. college or university accredited by a regional accrediting association, or completion of an international degree that is equivalent to a U.S. bachelor's degree from a college or university recognized and approved by the Ministry of Education or Commission responsible for higher education in the country where the degree is earned.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see [Good Academic Standing](#)).

Course Requirements (12 Credits)

a. Required Courses (8 credits)

Students are required to select at least two courses from:

- **CSI5580 AI for Cybersecurity & Privacy AI for Cybersecurity & Privacy (4 credits)**
- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
or **CSI5170 Machine Learning Machine Learning (4 credits)**

b. Elective Course (4 credits)

Select one course from any one of the following courses:

- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5480 Information Security Practice Information Security Practices (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**◆
- **CSI5170 Machine Learning Machine Learning (4 credits)**◆

◆If not selected as a core course.

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make

satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously. The earned credits of this certificate can be applied towards any of the master programs offered by the CSE department including Computer Science, Software Engineering & Information Technology, Cybersecurity, or Artificial Intelligence.

In all programs the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Productivity Improvement

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Productivity Improvement	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Industrial/Systems Engineering

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Industrial and Systems Engineering

502 Engineering Center ([map](#))

(248) 370-2989 • Fax (248) 370-4625

www.oakland.edu/ise

Coordinator

Vijitashwa Pandey, PhD

502 Engineering Center

(248) 370-2989

pandey2@oakland.edu

Program Description:

The Graduate Certificate in Productivity Improvement program is designed for any engineer (industrial and systems, mechanical, electrical, civil, computer, etc.) who wants access to the productivity tools needed for their current job, or to upgrade their skills to help get a promotion or a better job.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Bachelor of Science in any engineering discipline. Applicants from other disciplines such as computer science, engineering technology, information technology and software engineering, would be considered after successfully completing appropriate prerequisite courses.
 - Grade point average of 3.0 on a 4.0 scale or better.
 - Official Graduate Record Examination (GRE) results are required for those international applicants whose undergraduate cumulative grade point average is less than 3.0 on a 4.0 scale or their international institution is not accredited by a regional accrediting agency of the USA. The Department of Industrial and Systems Engineering may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 16 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see *Good academic standing*).

Course Requirements (16 credits)

a. Required Courses (12 credits)

Students are required to select at least three courses from:

- **ISE5410 Supply Chain Modeling/Analysis** Supply Chain Modeling and Analysis (4 credits)
- **ISE5517 Stats Methods in Engineering** Statistical Methods in Engineering (4 credits)
- **ISE5431 Engr Ops Rsrch/Stochastic Mods Engineering** Operations Research - Stochastic Models (4 credits) *
- **ISE5560 Product Lifecycle Management** Product Lifecycle Management (4 credits)
- **ISE5469 Cmptr Sim Discrete Event Sys** Computer Simulation of Discrete Event Systems (4 credits) *
- **ISE5480 E-Commerce and ERP** E-Commerce and ERP (4 credits) *
- **ISE5581 Lean Principles & Applications** Lean Principles and Application (4 credits)
- **ISE5483 Prod Systems/Workflow Analysis** Production Systems and Workflow Analysis (4 credits) *
- **ISE5485 Statistical Quality Analysis** Statistical Quality Analysis (4 credits) *
- **ISE5487 Foundations of Systems Engr** Foundations of Systems Engineering (4 credits) *
- **ISE6680 Engineering Decision Analysis** Engineering Decision Analysis (4 credits)
- **ISE6684 Computer-Integrated Manuf** Computer-Integrated Manufacturing Systems (4 credits)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

b. Elective Course (4 credits)

Select any one 5000-level or higher ISE course, including any additional course from the list of required courses above (except ISE 5001, 5002, 5003, 5970, 6996, 6998, 7970 and 7900).

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechatronics and Robotics Fundamentals

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Mechatronics and Robotics Fundamentals	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Graduate Certificate in Mechatronics and Robotics Fundamentals provides training in robotics, automotive mechatronics and equips students with the necessary skill sets in programming, algorithms, and systems analysis. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The certificate in Mechatronics and Robotics Fundamentals will help students by providing them with both theoretical and practical knowledge on robotics and mechatronics.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring

cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of

Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

Students wishing to complete the Mechatronics and Robotics Fundamentals Graduate Certificate will be required to complete 12 credit hours of coursework as outlined below. Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

Required Courses:

Choose 12 credits from the following:

- **ECE5140 Instrumentation & Measurements Instrumentation and Measurements (4 credits)**
- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits)**
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE5731 Fund of Embedded Sys Design Fundamentals of Embedded System Design (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Automotive Mechatronics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Automotive Mechatronics	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))
(248) 370-2177 • Fax (248) 370-4633
www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca
438 Engineering Center
(248)370-4042
llamocca@oakland.edu

Program Coordinator

Brian Dean
446A Engineering Center
(248) 370-2822
bkdean@oakland.edu

Program Description

The Graduate Certificate in Automotive Mechatronics combines skills from Electrical, Mechanical, and Computer Engineering to produce a functioning electro-mechanical automotive system. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. This certificate in Automotive Mechatronics will provide students with both theoretical and practical knowledge.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **Good Academic Standing**).

Course Requirements (12 credits)

a. Required Courses (8 credits)

- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**

b. Electives (4 credits)

Choose one course from the following:

- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits)**
- **ME5230 Automotive Driveline Dynamics Automotive Driveline Dynamics (4 credits)**
- **ME5540 Internal Combustion Engines I Internal Combustion Engines I (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department Requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Autonomous Vehicle Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Autonomous Vehicle Systems	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrical & Computer Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

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llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The graduate certificate in Autonomous Vehicle Systems is designed to provide students with specialized knowledge and skills in autonomous vehicle technology, with a focus on the development and maintenance of autonomous vehicle systems. The curriculum includes courses on machine learning, computer vision, sensor technology, and control systems engineering, which are essential for the development of autonomous vehicles.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **good Academic Standing**).

Course Requirements (12 credits)

a. Required course (4 credits)

- **ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)**

b. Electives (8 credits)

Choose two courses from the following:

- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits)**
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6460 Autonomous Vehicle Systems II Autonomous Vehicle Systems II (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Automotive Electrification

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Automotive Electrification	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Graduate Certificate in Automotive Electrification is intended to train skilled leaders in electrified transportation systems that will replace the internal combustion engine vehicles. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The certificate in Automotive Electrification will help students in the manufacturing of vehicles that can run independent of any hydrocarbon-based resources.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. You can work at your own pace towards your degree, building skills as you need them to maximize your career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

To fulfill the certificate requirements, a student must

- complete at least 12 credits of graduate-level work as described below under *Course requirements*,
- earn a cumulative GPA of at least 3.0 in courses applied toward the certificate,
- satisfy all requirements concerning academic progress (see **Good Academic Standing**).

Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

a. Required courses (8 credits)

- **ECE5630 Electric/Hybrid Drive Systems** Electric and Hybrid Drive Systems (4 credits)
- **ME5535 Introduction to Electric Drive** Introduction to Electric Drive Vehicle Engineering (4 credits)

b. Electives (4 credits)

Choose one course from the following:

- **ME5545 Fundamentals of Battery System** Fundamentals of Battery Systems Hybrid and Elec Vehicles (4 credits)
- **ECE5600 Design of AC Machines** Design of AC Machines (4 credits)
- **ECE5640 Battery Management Systems** Battery Management Systems (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Robotic Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Robotic Systems Major	

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

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Program Coordinator

Brian Dean

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(248) 370-2822

bkdean@oakland.edu

Program Description

The Graduate Certificate in Robotic Systems equips students with necessary skill sets in programming, algorithms, and systems analysis. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The certificate in Robotic Systems will help students by providing them with both theoretical and practical knowledge of robotics and robotic systems.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
Recommendation for Graduate Admission form
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
3. Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a

Request to Waive GRE

form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee

4. Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

5. Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
6. If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
7. Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

Students wishing to complete the Robotic Systems Graduate Certificate will be required to complete 12 credit hours of coursework as outlined below. Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

a. Required Course (4 credits)

- **ECE5510 Machine Vision Machine Vision (4 credits)**

b. Electives (8 credits)

Choose two courses from the following:

- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits)**
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE5740 Embedded AI Embedded Artificial Intelligence (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ME5200 Dynamics Dynamics (4 credits)**
- **ME6230 Kinematics and Mechanisms Kinematics and Mechanisms (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Human-Robot Interactions

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Human-Robot Interactions	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))
(248) 370-2177 • Fax (248) 370-4633
www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca
438 Engineering Center
(248)370-4042
llamocca@oakland.edu

Program Coordinator

Brian Dean
446A Engineering Center
(248) 370-2822
bkdean@oakland.edu

Program Description

The graduate certificate in Human-Robot Interactions equips students in a cutting edge area of industry that seeks to allow humans and robots to work together to accomplish a task. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The certificate in Human-Robot Interactions will help students by providing them with both theoretical and practical knowledge of robotics and robotic systems.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. The student can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's have a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

Students wishing to complete the Human-Robot Interaction Graduate Certificate will be required to complete 12 credit hours of coursework as outlined below. Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

a. Required Course (4 credits)

- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)**

b. Electives (8 credits)

Choose 2 courses from the following:

- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits)**
- **ECE5510 Machine Vision Machine Vision (4 credits)**
- **ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)**
- **SYS5900 Special Topics ST: Virtual and Augmented Reality (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Systems and Controls

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Systems and Controls	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center (map)

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Graduate Certificate in Systems and Controls provides training in and equips students with necessary skill sets in system analysis, control theory, and adaptive systems. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The Graduate Certificate in Systems and Controls will help students by providing them with both theoretical and practical knowledge.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers.

Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.
 - Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.

- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

Students wishing to complete the Systems and Controls Graduate Certificate will be required to complete 12 credit hours of coursework as outlined below. Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

a. Required Course (4 credits)

- **ECE5404 Linear Systems and Control Linear Systems and Control (4 credits)**

b. Electives (8 credits)

Choose two courses from the following:

- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits)**
- **ECE6400 Estimation and Control Theory Estimation and Control Theory (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6412 Digital Control Systems Digital Control Systems (4 credits)**
- **ECE6430 Analysis Nonlinear Control Sys Analysis of Nonlinear Control Systems (4 credits)**
- **ECE6440 Adaptive Control Systems Adaptive Control Systems (4 credits)**
- **ECE6450 Model Predictive Control Model Predictive Control (4 credits)**
- **ECE6452 Optimal Control Optimal Control (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Systems Dynamics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Systems Dynamics	Major

Program Type

GR Certificate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

12

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering
446 Engineering Center (map)
(248) 370-2177 • Fax (248) 370-4633
www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca
438 Engineering Center
(248)370-4042
llamocca@oakland.edu

Program Coordinator

Brian Dean
446A Engineering Center
(248) 370-2822
bkdean@oakland.edu

Program Description

The Graduate Certificate in System Dynamics provides students with training in the Mechanical Engineering skills necessary to work in robotics and mechatronics engineering fields. This program is aimed at achieving this goal, as well as addressing the emerging needs of this market. The certificate in System Dynamics will help students by providing them with both theoretical and practical knowledge of mechatronics and robotics engineering.

ECE offers a series of stackable certificate programs that can lead to a M.S. degree in Mechatronics and Robotics Engineering. We have partnered with industry to develop stackable certificates featuring cutting-edge skills in the areas of high demand by employers. Students can work at their own pace towards a degree, building skills as they need them to maximize career success.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
 - Two recommendation forms and required and must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
- Bachelor of Science degree in Mechanical Engineering, Electrical Engineering, Computer Engineering, Systems Engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Certificate Requirements

Students wishing to complete the System Dynamics Graduate Certificate will be required to complete 12 credit hours of coursework as outlined below. Courses counted towards a certificate cannot be counted to fulfill the requirements of another certificate.

Course Requirements (12 credits)

a. Required Course (4 credits)

- **ME5200 Dynamics Dynamics (4 credits)**

b. Electives (8 credits)

Choose two courses from the following:

- **ME5260 Acoustics and Noise Control Acoustics and Noise Control (4 credits)**
- **ME5220 Mechanical Vibrations Mechanical Vibrations (4 credits)**
- **ME6230 Kinematics and Mechanisms Kinematics and Mechanisms (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Environmental Protection

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Environmental Protection	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total

13

Delivery Method Required

Partially Online

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd ([map](#))

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Director:

Darryl Hill, Lecturer

dhill@oakland.edu

Program Description

The Environmental Protection Certificate is designed to enhance graduate students' and working professionals' knowledge in the area of environmental protection and occupational safety.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year.
- [International applicants](#)

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
- Overall undergraduate or graduate GPA of 3.0
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences website.

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. Additional department application requirements
- Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
- Overall undergraduate or graduate GPA of 3.0.
- Two recommendation forms from faculty members, supervisors, or professional mentors.
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Environmental Protection Graduate Certificate may contact the Master of Public Health program director to review the application and course requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Environmental Protection Graduate Certificate program does not require any undergraduate preparatory course work and there are no required prerequisites.

Certificate Requirements

The Environmental Protection Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course Requirements

Students must successfully complete the following core courses.

Core Requirements (13 credits)

- **EHS5440 Environmental Standards Environmental Standards (3 credits)**
- **EHS5550 Env Controls Environmental Pollution and Controls (3 credits)**
- **PH5350 Environmental Justice Environmental Justice (4 credits)**
- **EHS5460 Industrial Toxicology Industrial and Environmental Toxicology (3 credits)**

Satisfactory Academic Progress

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Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Human Factors and Ergonomics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Human Factors and Ergonomics	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total

13

Delivery Method Required

Partially Online

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd ([map](#))

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Director:

Darryl Hill, Lecturer

dhill@oakland.edu

Program Description

The Human Factors and Ergonomics Certificate is designed to enhance graduate students' and working professionals' knowledge in the area of environmental protection and occupational safety.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year.
- **International applicants**

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
- Overall undergraduate or graduate GPA of 3.0
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences website.

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. Additional department application requirements
- Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
- Overall undergraduate or graduate GPA of 3.0.
- Two recommendation forms from faculty members, supervisors, or professional mentors.
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Human Factors and Ergonomics Graduate Certificate may contact the Master of Public Health program director to review the application and course requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Human Factors and Ergonomics Graduate Certificate program does not require any undergraduate preparatory course work and there are no required prerequisites.

Certificate Requirements

The Human Factors and Ergonomics Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course Requirements

- Students must successfully complete the following core courses.

Core requirements (13 credits)

- **EHS5450 Ergonomics Ergonomics (3 credits)**
- **EXS5700 Corporate/Worksite Wellness Corporate and Worksite Wellness Programs (2 credits)**
- **ISE5441 Human Factors Engineering Human Factors Engineering (4 credits)**
- **ISE5540 Occupational Biomechanics Occupational Biomechanics (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Industrial Hygiene

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Industrial Hygiene	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total

13

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd ([map](#))

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Director:

Darryl Hill, Lecturer

dhill@oakland.edu

Program Description

The Industrial Hygiene Certificate is designed to enhance graduate students' and working professionals' knowledge in the area of environmental protection and occupational safety.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year.
- **International applicants**

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
- Overall undergraduate or graduate GPA of 3.0
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences website.

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. Additional department application requirements
- Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
- Overall undergraduate or graduate GPA of 3.0.
- Two recommendation forms from faculty members, supervisors, or professional mentors.
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Industrial Hygiene Graduate Certificate may contact the Master of Public Health program director to review the application and course requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Industrial Hygiene Graduate Certificate program does not require any undergraduate preparatory course work and there are no required prerequisites.

Certificate Requirements

The Industrial Hygiene Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course Requirements

Students must successfully complete the following core courses.

Core Requirements (13 credits)

- **EHS5100 Fundamentals of Occ Hygiene Fundamentals of Occupational Hygiene (3 credits)**
- **EHS5460 Industrial Toxicology Industrial and Environmental Toxicology (3 credits)**
- **EHS5550 Env Controls Environmental Pollution and Controls (3 credits)**
- **PH5600 Intro to Environmental Hlth Sc Introduction to Environmental Health Sciences (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Environmental Health and Safety Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Environmental Health and Safety Management	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total

12

Delivery Method Required

Fully Online

Summer Semesters
1

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd ([map](#))

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Director:

Darryl Hill, Lecturer

dhill@oakland.edu

Program description

The Environmental Health and Safety Management Certificate is designed to enhance graduate students' and working professionals' knowledge in the area of environmental protection and occupational safety.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year.
- **International applicants**

Application requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
 - Overall undergraduate or graduate GPA of 3.0
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences website.

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
 - Additional department application requirements
 - Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
 - Overall undergraduate or graduate GPA of 3.0.
 - Two recommendation forms from faculty members, supervisors, or professional mentors.
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic advising

Students who are considering applying for the Environmental Health and Safety Graduate Certificate may contact the Master of Public Health program director to review the application and course requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate prerequisites

The Environmental Health and Safety Management Graduate Certificate program does not require any undergraduate preparatory course work and there are no required prerequisites.

Certificate requirements

The Environmental Health and Safety Management Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course requirements

Core requirements (12 credits)

- **EHS5200 Advanced Safety/Health Admin Advanced Safety and Health Administration (3 credits)**
- **EHS5400 Risk Assessment/Loss Control Risk Assessment and Loss Control (3 credits)**
- **EHS5410 Accid/Incident Inv and Analys Accident/Incident Investigation and Analysis (3 credits)**
- **EHS5600 Applied System Safety Analysis Applied System Safety Analysis (3 credits)**

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Pathology Sciences

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Pathology Sciences	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Clinical and Diagnostic Sci

Credit Total

16

Delivery Method Required

Partially Online

Summer Semesters

0

Requirements

Program Requirements

Department of Clinical and Diagnostic Science

433 Meadow Brook Rd • (248) 370-2369 • Fax (248) 364-8657([map](https://www.oakland.edu/shs/clinical-and-diagnostic-sciences/))
<https://www.oakland.edu/shs/clinical-and-diagnostic-sciences/>

Graduate Coordinator

Dale Telgenhoff, Associate Professor
dtelgenhoff@oakland.edu

Program Description

The Pathology Sciences Certificate is designed to provide advanced training to healthcare professionals and other baccalaureate trained applicants in order to expand their knowledge base in the field of medical diagnostic sciences.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

2. Additional department application requirements

- Overall undergraduate or graduate GPA of 3.0.
- Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.
- Requirements for Recommendations:
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Environmental Protection Graduate Certificate may contact the Master of Public Health program director to review the application and course requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Pathology Sciences Graduate Certificate program requires a completed bachelor's degree or equivalent in Clinical Diagnostic Sciences, Health Sciences, Biology, or a related field. Specific courses required at the undergraduate level include Anatomy, Physiology, and Biochemistry.

Certificate Requirements

The Pathology Sciences Graduate Certificate is awarded upon satisfactory completion of 16 credits.

Core Requirements (16 credits)

- CDS5010 Human Pathology Human Pathology (4 credits)
- CDS5030 Histopathology Histopathology (4 credits)
- CDS5200 Literature Review Literature Review (1 credit)
- CDS5700 Medical Endocrinology Medical Endocrinology (4 credits)
- CDS6300 Molecular & Cellular Pathology Molecular and Cellular Pathology (3 credits)

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state, and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Oncology Rehabilitation

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Oncology Rehabilitation	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

12

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd [\(map\)](#)
(248) 370-4041 • Fax (248) 364-8660
www.oakland.edu/shs/

Coordinator:

Lori Boright, Assistant Professor
lboright@oakland.edu

Program Description

The Graduate Certificate in Oncology Rehabilitation (GCOR) is designed to provide advanced theoretical and psychomotor training for physical therapists interested in specializing in the areas of oncology rehabilitation. The GCOR will allow practicing physical therapists, occupational therapists, speech-language pathologists, physical therapist assistants (with a bachelor's degree), certified occupational therapist assistants (with a bachelor's degree), and persons with a master's degree in exercise science, to take graduate-level courses to develop the specialty skills of a master clinician in prevention and management of oncology-related functional limitations of the musculoskeletal, neuromuscular, integumentary, metabolic, cardiopulmonary and vascular systems. Students may apply the 12 GCOR credits towards completion of the Oakland University PhD in Human Movement Science, if they are eligible for admission to these programs.

Program Delivery

All courses in the Graduate Certificate in Oncology Rehabilitation are delivered 100% online. Students enrolled in this online graduate certificate program qualify for in-state tuition. If you are not a U.S.

citizen and live outside the United States, **you can remain in your country and enroll in this online program without having to apply for a student visa.**

Admission Terms and Application Deadlines

Applicants are admitted in the fall, winter, and summer semesters. Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from individuals who can attest to the quality and scope of the applicant's academic and professional ability
 - Professional vitae or resume
 - One page narrative goal statement outlining academic and professional goals.
 - Proof of healthcare professional licensure, registration, certificate (or the equivalent) in the country of residence (if applicable).

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Applicants with an undergraduate GPA less than 3.0 (B) with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 8 credits of graduate-level work, with a GPA of 3.0 (B) or above within the first year of their program, to be advanced to full admission.

Academic Advising

Students who are considering applying to the Graduate Certificate in Oncology Rehabilitation may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Graduate Certificate Requirements

The Graduate Certificate in Oncology Rehabilitation is awarded upon satisfactory completion of 12 credits in an approved program of study.

Course Requirements (12 credits)

- **PT8830 Essentials Comp Oncology Rehab Essentials of Comprehensive Oncology Rehabilitation (3 credits)**
- **PT8832 Rehab Mgt/Upper Quarter Oncol Rehabilitation Management of Upper Quarter Oncology Conditions (3 credits)**
- **PT8831 PT Mgt-Blood/Head/Neck/CNerv Rehabilitation of Blood, Head & Neck, and Central Nervous System Oncology Conditions (3 credits)**
- **PT8833 Rehab Mgt Lower Oncol Cond. Rehabilitation Management of Lower Quarter Oncology Conditions (3 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. *Department requirements:* An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree program requirements. The plan of study must be approved by the faculty adviser and submitted by the student to the Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A Petition of Exception - OU Course Waiver/ Substitution requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the time **limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Orthopedic Manual Physical Therapy

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Orthopedic Manual Physical Therapy	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs/pt

Coordinator:

John R. Krauss, Professor

krauss@oakland.edu

Program Description

The Graduate Certificate in Orthopedic Manual Physical Therapy is designed to offer advanced, graduate-level courses in orthopedics to physical therapists interested in developing clinical specialty skills. This educational program provides advanced theoretical and clinical training, emphasizing differential diagnosis and manual therapy procedures.

Students enrolled in the program will participate in 12 credits of coursework including orthopedic theory, techniques and clinical internship training. All of the required courses that comprise this graduate certificate can be applied to the Doctor of Science in Physical Therapy degree.

Program Delivery

The Graduate Certificate in Orthopedic Manual Physical Therapy program is offered as a part-time course of study accommodating the needs of working professionals. The length of study for this part-time program is 15 months, with courses being offered primarily on a weekend and evening basis. The clinical training entails clinical training at an approved clinical site.

Admission Terms and Application Deadlines

Applicants are admitted Fall semester only. Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants should have a minimum cumulative grade point average of 3.0 (B).
 - Professional vitae or resume
 - One-page narrative goal statement outlining academic and professional goals
 - Applicants must be licensed or eligible for licensure in the U.S. or Canada. Applicants who do not have a license upon admission will be considered for admission with limited standing. Proof of licensure is required to register for courses with clinical hours.
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Graduate Certificate in Orthopedic Manual Physical Therapy may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Requirements

The Graduate Certificate in Orthopedic Manual Physical Therapy is awarded upon satisfactory completion of 12 credits in an approved program of study.

Course Requirements

- **PT8881 AO - Foundations in OMPT Advanced Orthopedics - Foundations in OMPT (1 credit)**
- **PT8882 AO - Lower Quarter Advanced Orthopedics - Lower Quarter (3 credits)**
- **PT8883 AO - Upper Quarter Advanced Orthopedics - Upper Quarter (3 credits)**
- **PT8884 AO - Spine Advanced Orthopedics - Spine (3 credits)**
- **PT8885 AO - Clinical Fellowship 1 Advanced Orthopedics - Clinical Fellowship 1 (1 credit)**
- **PT8886 AO - Clinical Fellowship 2 Advanced Orthopedics - Clinical Fellowship 2 (1 credit)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Teaching and Learning for Health Science Professionals

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Teaching and Learning for Health Science Professionals	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

14

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd [\(map\)](#)
(248) 370-4041 • Fax (248) 364-8660
www.oakland.edu/shs/

Coordinator:

Kristine A. Thompson, Professor

kathomps@oakland.edu

Program description

The Graduate Certificate in Teaching and Learning for Health Science Professionals is designed to provide an in-depth understanding of the principles of teaching and learning used in all aspects of the health sciences. In addition, it will provide students with advanced skills in teaching methodology and the development of educational materials. Students will complete a teaching practicum under the guidance of a full-time faculty member. All of the required courses that comprise the certificate can be applied to the PhD in Human Movement Science.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester

- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must have earned an entry-level degree in a rehabilitation or in another health profession.
 - Professional vitae or resume
 - One-page narrative goal statement outlining academic and professional goal
 - **Requirements for Recommendations**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Applicants with an undergraduate GPA less than 3.0 (B) with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 16 credits of graduate-level work, with a GPA of 3.0 (B) or above within the first year of their program, to be advanced to full admission.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Academic advising

Students who are considering applying to the Graduate Certificate in Teaching and Learning for Rehabilitation Professionals may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate requirements

The Graduate Certificate in Teaching and Learning for Health Science Professionals is awarded upon satisfactory completion of 14 credits in an approved program of study.

Course requirements (11 credits)

- **PT8806 Methods Teach Learn Hlth Sci** Methods of Teaching and Learning in Health Sciences (3 credits)
- **PT8808 Professional Edu Health Sci** Professional Education in Health Sciences (4 credits)

- **PT8964 Teaching Practicum for Hlth Sc** Teaching Practicum for Health Science Professionals (4 credits)

Elective courses (3 credits)

- **PT8807 Educ Princ/Rehab Profess** Educational Principles for Rehabilitation Professionals (4 credits)
- **PT8970 Independent Study** Independent Study (1 to 4 credits)
- **PT8925 Research Directed Study** Research Directed Study (1 to 4 credits)
- **NRS6712 Curriculum/Instruction Nrs Ed** Curriculum and Instruction in Nursing Education (3 credits)
- **NRS6722 Evaluation in NRS Education** Evaluation in Nursing Education (3 credits)

Courses in the School of Health Sciences, the School of Education or the university relevant to the student's plan of study may be considered and approved by the program coordinator.

Satisfactory academic progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state, and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Exercise Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Exercise Science Major	

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

18

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Human Movement Science

3077 Human Health Building ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs/

Director:

Daniel Goble, Associate Professor

dgoble@oakland.edu

Program description

The Graduate Certificate in Exercise Science is designed to offer a logical, coherent, yet flexible program of study that will meet the needs of a select group of graduate students seeking to improve their skills in specialized areas of exercise science, such as ergonomics, human performance analysis, sports science and health promotion.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. **Additional department application requirements**
 - Applicants should have a background in basic and applied health sciences and a minimum overall undergraduate GPA of 3.0.
 - International applicants must take the Graduate Record Exam (GRE) and arrange for their official GRE scores to be submitted to Oakland University. The institution code for Oakland University is 1497.

It is strongly recommended that applicants have suitable work experience in the field of exercise science.

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 12 credits of graduate-level work, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Graduate Certificate in Exercise Science may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

Completion of the following prerequisite coursework is required. Students should have completed the required prerequisite coursework at the appropriate undergraduate or graduate level, prior to beginning coursework for the graduate certificate.

- Human anatomy
- Human physiology
- Exercise physiology
- Biomechanics (human motion analysis)
- Statistics
- First aid and cardiopulmonary resuscitation

- Four credits of health enhancement (or physical education activity/theory)

While not required, additional coursework in biochemistry, organic chemistry, and mathematics through precalculus is recommended.

Certificate Requirements

The Graduate Certificate in Exercise Science is awarded upon satisfactory completion of 18 credits in an approved program of study.

Course Requirements (18 credits)

A candidate entering the fall or winter semester will spend one full-time academic year to successfully complete the graduate certificate program, which requires completion of the core courses and electives.

a. Core Requirements (14 credits)

Required Courses:

- **CDS5010 Human Pathology Human Pathology (4 credits)**
or **EXS5000 Introduction To Research Introduction to Research (4 credits)**
- **EXS5010 Advanced Exercise Physiology Advanced Exercise Physiology (4 credits)**
- **EXS5020 Advanced Biomechanics Advanced Biomechanics (3 credits)**
- **EXS5030 Diagnostic Test/Exs Prescript Diagnostic Testing and Exercise Prescription (3 credits)**

b. Electives (4 credits)

Choose 4 credits from the following:

- **EXS5000 Introduction To Research Introduction to Research (4 credits)**
- **EXS5040 Nutrition/Weight Mgt/Exercise Nutrition, Weight Management and Exercise (2 credits)**
- **EXS5200 Physical Activity & Aging Physical Activity and Aging (2 credits)**
- **EXS5310 Environment/Human Performance Environment and Human Performance (2 credits)**
- **EXS5440 Prev Nutrit Through Life Span Preventative Nutrition Through the Life Span (2 credits)**
- **EXS5500 Healthy Lifestyle Choices Healthy Lifestyle Choices (2 credits)**
- **EXS5510 Stress Management Stress Management (2 credits)**
- **EXS5600 Health And Disease Health and Disease (2 credits)**
- **EXS5620 Clinical Biomechanics Clinical Biomechanics (2 credits)**

- **EXS5630 Basic Athletic Training Basic Athletic Training (2 credits)**
- **EXS5640 Exercise Electrocardiography Exercise Electrocardiography (2 credits)**
- **EXS5800 Exercise Endocrinology Exercise Endocrinology (2 credits)**
- **EXS5810 Physical Activity Epidemiology Physical Activity Epidemiology (2 credits)**
- **EXS5830 Muscle Physiology Muscle Physiology (2 credits)**
- **EXS6600 Admin Cardiac Rehab/Exs Prgm Administration of a Cardiac Rehabilitation or Community Exercise Program (2 credits)**
- **EXS6700 Laboratory Instrumentation Laboratory Instrumentation (2 credits)**
- **EXS6920 Directed Study and Research Directed Study and Research (1 OR 2 credits) (1 or 2 credits)**
- **EXS6940 Seminar In Exercise Science Seminar in Exercise Science (2 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Clinical Exercise Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Clinical Exercise Science	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

14

Delivery Method

In Person

Required

Summer
Semesters
0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs/

Director:

Daniel Goble, Associate Professor

dgoble@oakland.edu

Program Description

The Graduate Certificate in Clinical Exercise Science is designed to offer advanced, graduate-level courses in exercise science to individuals wishing to prepare for the rigors of careers in fields such as cardiac rehabilitation and exercise physiology. Theory and lab-based courses offer a thorough understanding of exercise prescription for those with chronic cardiovascular, metabolic, or neuromuscular conditions.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants should have a background in basic and applied health sciences and a minimum overall undergraduate GPA of 3.0.
 - Goal statement

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 12 credits of graduate-level work, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Graduate Certificate in Clinical Exercise Science may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

Completion of the following prerequisite coursework is required. Students must have completed the required prerequisite coursework at the appropriate undergraduate or graduate level, prior to beginning coursework for the graduate certificate.

- Human anatomy
- Human physiology
- Exercise physiology
- Biomechanics (human motion analysis)

Certificate Requirements

The Graduate Certificate in Clinical Exercise Science is awarded upon satisfactory completion of 14 credits in an approved program of study.

Core Courses (14 credits)

Required courses:

- **EXS5010 Advanced Exercise Physiology** Advanced Exercise Physiology (4 credits)

- **EXS5020 Advanced Biomechanics Advanced Biomechanics (3 credits)**
- **EXS5030 Diagnostic Test/Exs Prescript Diagnostic Testing and Exercise Prescription (3 credits)**
- **EXS5040 Nutrition/Weight Mgt/Exercise Nutrition, Weight Management and Exercise (2 credits)**
- **EXS5640 Exercise Electrocardiography Exercise Electrocardiography (2 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Corporate and Worksite Wellness

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Corporate and Worksite Wellness	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

14

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs

Coordinator:

Daniel Goble, Associate Professor

dgoble@oakland.edu

Program Description

The Graduate Certificate in Corporate and Worksite Wellness is designed to offer advanced graduate courses to prepare exercise science practitioners for the demands of careers in corporate and worksite wellness. Worksite Wellness focuses on establishing and maintaining a healthy environment in the workplace, as well as in schools and the community. The primary goal of Worksite Wellness is to promote and encourage employees to lead a healthy lifestyle. Wellness promotion is done through programming including, but not limited to, smoking cessation, biometric screenings, stress management, weight loss, back health/safety, and fitness classes. Successful worksite wellness programs show more productive employees, higher employee satisfaction, and lower absenteeism due to illness.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants should have a background in basic and applied health sciences and a minimum overall undergraduate grade point average of 3.0 (B).
 - The two Recommendations for Graduate Admission forms listed above must be from academics familiar with the student's abilities (preferred) or from employment supervisors.
 - Goal statement

Applicants with an undergraduate GPA less than 3.0 (B) with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 12 credits of graduate-level work, with a GPA of 3.0 (B) or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Graduate Certificate in Corporate and Worksite Wellness may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

Completion of the following prerequisite courses is required.

Students should have completed the required prerequisite coursework at the appropriate undergraduate or graduate level, prior to beginning coursework for the master's degree.

- Human anatomy
- Human physiology
- Exercise physiology
- Biomechanics (human motion analysis)

Certificate Requirements

The Graduate Certificate in Corporate and Worksite Wellness is awarded upon satisfactory completion of 14 credits in an approved program of study.

Course Requirements (14 credits)

A candidate entering the fall or winter semester will spend one full-time academic year to successfully complete the graduate certificate program, which requires completion of the core courses and electives.

a. Core Courses (12 credits)

Required courses:

- **EXS5010 Advanced Exercise Physiology** Advanced Exercise Physiology (4 credits)
- **EXS5020 Advanced Biomechanics** Advanced Biomechanics (3 credits)
- **EXS5030 Diagnostic Test/Exs Prescript** Diagnostic Testing and Exercise Prescription (3 credits)
- **EXS5700 Corporate/Worksite Wellness** Corporate and Worksite Wellness Programs (2 credits)

b. Electives (2 credits)

Choose 2 credits from the following:

- **EXS5100 Intro to Personal Training** Introduction to Personal Training (2 credits)
- **EXS5200 Physical Activity & Aging** Physical Activity and Aging (2 credits)
- **EXS5300 Human Performance Enhancement** Human Performance Enhancement (2 credits)
- **EXS5310 Environment/Human Performance** Environment and Human Performance (2 credits)
- **EXS5440 Prev Nutrit Through Life Span** Preventative Nutrition Through the Life Span (2 credits)
- **EXS5500 Healthy Lifestyle Choices** Healthy Lifestyle Choices (2 credits)

- **EXS5510 Stress Management** Stress Management (2 credits)
- **EXS5520 Health-Promoting Choices** Health-Promoting Lifestyle Choices and Interventions (4 credits)
- **EXS5600 Health And Disease** Health and Disease (2 credits)
- **EXS5620 Clinical Biomechanics** Clinical Biomechanics (2 credits)
- **EXS5630 Basic Athletic Training** Basic Athletic Training (2 credits)
- **EXS5640 Exercise Electrocardiography** Exercise Electrocardiography (2 credits)
- **EXS5650 Yoga Therapy** Yoga Therapy (3 Credits)
- **EXS5700 Corporate/Worksite Wellness** Corporate and Worksite Wellness Programs (2 credits)
- **EXS5800 Exercise Endocrinology** Exercise Endocrinology (2 credits)
- **EXS5810 Physical Activity Epidemiology** Physical Activity Epidemiology (2 credits)
- **EXS6600 Admin Cardiac Rehab/Exs Prgm** Administration of a Cardiac Rehabilitation or Community Exercise Program (2 credits)
- **EXS6700 Laboratory Instrumentation** Laboratory Instrumentation (2 credits)
- **EXS5830 Muscle Physiology** Muscle Physiology (2 credits)
- **EXS6920 Directed Study and Research** Directed Study and Research (1 OR 2 credits) (1 or 2 credits)
- **EXS6940 Seminar In Exercise Science** Seminar in Exercise Science (2 credits)
- **EXS6955 Exercise Science Internship II** Exercise Science Internship II (2 OR 4 credits)

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0

(B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Health Equity

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Health Equity	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd (map)

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/>

Director:

Florence Dallo, Professor

dallo@oakland.edu

Program Description

The Health Equity Certificate is designed to enhance graduate students' and working professionals' knowledge of the impact of social justice and social determinants of health on health outcomes.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year
- **International applicants**

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
 - Overall undergraduate or graduate GPA of 3.0
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences [website](#).

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
 - Overall undergraduate or graduate GPA of 3.0.
 - Two (2) recommendation forms from faculty members, supervisors, or professional mentors.
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University's Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Health Equity Graduate Certificate may contact the Master of Public Health program director to review the application and courses requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Health Equity Graduate Certificate program does not require any undergraduate preparatory course work and there are no required prerequisites.

Certificate Requirements

The Health Equity Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course Requirements

- Students will be required to create an ePortfolio to highlight their skill level and deliverables from completing the certificate.
- Students must successfully complete the following core courses.

Core Requirements (12 credits)

- **PH5100 Principles/Comm-Based Part Res Principles of Community-Based Participatory Research (4 credits)**
- **PH5350 Environmental Justice Environmental Justice (4 credits)**
- **PH5650 Social Determinants of Health Social Determinants of Health (4 credits)**

Satisfactory Academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Global and Population Health Services

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Global and Population Health Services	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

12

Delivery Method Required

Partially Online

Summer Semesters

1

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd (map)

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/>

Director:

Florence Dallo, Professor

Dallo@oakland.edu

Program Description

The Global and Population Health Services Graduate Certificate is designed to advance graduate students' and working health professionals' training on planning and coordinating medical and health services.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year
- **International applicants**

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
 - Overall undergraduate or graduate GPA of 3.0
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences [website](#).

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
 - Overall undergraduate or graduate GPA of 3.0.
 - Two (2) recommendation forms from faculty members, supervisors, or professional mentors.
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University's Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Global and Population Health Services Graduate Certificate may contact the Master of Public Health program director to review the application and courses requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Global and Population Health Services Graduate Certificate program does not require any undergraduate preparatory course work, and there are no required prerequisites.

Certificate Requirements

The Global and Population Health Services Graduate Certificate is awarded upon satisfactory completion of the course requirements.

Course Requirements

- Students will be required to create an ePortfolio to highlight their skill level and deliverables from completing the certificate.
- Students must successfully complete the following core courses.

Core Requirements (12 credits)

- **PH5200 Planning/Imp/Eval/PH Interventions Planning, Implementation, and Evaluation of Public Health Interventions (4 credits)**
- **PH5750 Global Health & Social Issues Global Health and Social Issues (4 credits)**
- **PH5850 Pop Health, Policy, Care Population Health, Health Policy and Healthcare (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Epidemiological Research

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Epidemiological Research	Major

Program Type

GR Certificate

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

12

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd (map)

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/>

Director:

Florence Dallo, Professor

dallo@oakland.edu

Program Description

The Epidemiological Research Graduate Certificate is designed to advance graduate students' and working health professionals' research and epidemiology skills.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received. Incomplete applications will not be sent to departments for admission review. External applicants (non-OU students) must submit the required documents to the Oakland University Graduate School by the semester deadlines listed below.

- The program admits students on a rolling admissions basis allowing application submissions throughout the year
- **International applicants**

Application Requirements

Internal Applicants (current OU student):

If you are an internal applicant, to be considered for graduate admissions, applicants must submit all department requirements.

1. Department application requirements
 - Overall undergraduate or graduate GPA of 3.0
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

The internal application form can be found on the School of Health Sciences [website](#).

External Applicants (non-OU student):

If you are an external applicant, to be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Official transcripts indicating a baccalaureate degree from a regionally accredited undergraduate institution.
 - Overall undergraduate or graduate GPA of 3.0.
 - Two (2) recommendation forms from faculty members, supervisors, or professional mentors.
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking the certificate.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University's Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying for the Epidemiological Research Graduate Certificate may contact the Master of Public Health program director to review the application and courses requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Certificate Prerequisites

The Epidemiological Research Graduate Certificate program does not require any undergraduate preparatory course work, and there are no required prerequisites.

Certificate Requirements

The Epidemiological Research Graduate Certificate program does not require any undergraduate preparatory course work, and there are no required prerequisites.

Course Requirements

- Students will be required to create an ePortfolio to highlight their skill level and deliverables from completing the certificate.
- Students must successfully complete the following core courses.

Core courses (12 credits)

Required courses:

- **PH5250 Res Methods/Health Disciplines Research Methods in Health Disciplines (4 credits)**
- **PH6250 Mechnsm/Chronic Infect Disease Mechanisms of Chronic and Infectious Disease (4 credits)**

Choose 4 credits from the following:

- **PH5410 Biostatistical Method/Pub Heal Biostatistical Methods in Public Health (3 credits)** and
- **PH5411 Biostatistical Methods/PH Lab Biostatistical Methods in Public Health Laboratory (1 credit)**
or **PH5450 Applied Biostats in PH Applied Biostatistics in Public Health (3 credits)** and
- **PH5451 Applied Biostats in PH Lab Applied Biostatistics in Public Health Laboratory (1 credit)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Forensic Nursing

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	GC	Forensic Nursing Major	

Program Type

GR Certificate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

18

Delivery Method Required

Fully Online, Partially Online

Summer Semesters

1

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-8733 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Brenda Dzierzawski
2016 Human Health Building
248-364-8769
bdzierzawski@oakland.edu

Program Description

The Graduate Certificate in Forensic Nursing is an 18-credit program that prepares graduates for professional practice in the role of the forensic nurse through the application of knowledge and principles foundational to nursing science and forensic science. Curriculum emphasizes interprofessional education related to the diverse roles and responsibilities of the forensic nurse as an independent practitioner and collaborator within the multidisciplinary forensic team while providing specialized care and services to individuals, families, communities, populations, and systems that have experienced violence, trauma, or maltreatment.

The Graduate Certificate in Forensic Nursing prepares graduates to practice globally as a forensic nurse examiner with the ability to sub-specialize in a specific area of forensic nursing if desired. Graduates may practice in a variety of forensic nursing areas such as sexual violence, intimate partner violence, child/elder maltreatment, risk management, legal nursing, death investigation, and emergency preparedness and disaster management.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** (a centralized application system) by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the Fall Semester only. The application deadlines are:

- Fall Semester - February 15 (early): April 15 (regular): July 15 (late). All applications completed by July 15 will be considered for the following Fall Semester.
- **International students:** May 1 for the following Fall Semester (see additional requirements below)

Application Requirements

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Additional department application requirements

- Applicants for admission to the Graduate Certificate in Forensic Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of 3.0 or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- A minimum of one year of clinical experience as an R.N. (at program start) is required during which time the applicant must have functioned as an independent decision-maker and demonstrated advanced psychomotor skills.
- Two (2) Recommendations must be completed by healthcare professionals in forensic nursing, leadership, administration/management, or education and are able to attest to the applicant's nursing skills and/or abilities. One reference must be from a colleague who is familiar with the applicant's work.
- Professional statement of 500 to 1,000 words. The professional statement should focus on the applicant's reason for seeking formal forensic nursing education, how recent clinical experience has prepared them for forensic nursing practice, career goals after program completion, as well as plans for professional development in the specialty of forensic nursing. The professional statement will be evaluated on content and appropriate use of grammar, style, spelling, and rhetoric.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, the School of Nursing assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants may be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Certificate Requirements

The Graduate Certificate in Forensic Nursing is awarded upon satisfactory completion of 18 credits in an approved program of study and includes a minimum of 500 clinical practice hours. The program of study allows students to complete the requirements in 16 months.

Specialty Courses (18 credits)

Specialty courses are comprised of didactic and clinical courses that prepare students for forensic nursing practice. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level.

- **NRS6741 Foundations/Forensic Nursing Foundations of Forensic Nursing Science (3 credits)**
- **NRS6771 Forensic Nurse Death Invest Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death (2 credits)**
- **NRS6725 Death Investigation Clinical Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death Clinical (1 credit)**
- **NRS6761 Emergency Prep/Disaster Mgmt Emergency Preparedness and Disaster Management (2 credits)**
- **NRS6765 Emer Prep/Disaster Mgmt Clin Emergency Preparedness and Disaster Management Clinical (1 credit)**
- **NRS6755 Interper Violence/Maltreat Interpersonal Violence and Maltreatment (4 credits)**
- **NRS6745 Interper Violence/Maltreat Cli Interpersonal Violence and Maltreatment Clinical (1 credit)**
- **NRS6785 Adv Forensic Nursing Clinical Advanced Forensic Nursing Clinical (3 credits)**
- **NRS6941 Adv Forensic Nursing Seminar Advanced Forensic Nursing Seminar (1 credit)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Student Financial Services to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact [Student Financial Services](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of (B) 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the School of Nursing Graduate Student Handbook.

Students are expected to earn a grade of (B) 3.0 or above in each course in the graduate certificate program. In courses graded Satisfactory/ Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep RN license and health requirements current. See the School of Nursing Web site for health requirements. Students are also required to meet any requirements of the health care facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the FN program director, must develop a plan of study that details specific courses the students will use to satisfy their certificate requirements. The plan of study must be signed by the program director and student.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for requirements and policies stated in the **School of Nursing Graduate Student Handbook** and in each course syllabus. Every student admitted to the graduate certificate program is assigned an **academic adviser** and has a program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biology

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Biology	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Biological Sciences

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Biological Sciences

375 Dodge Hall ([map](#))

(248) 370-3550 • Fax (248) 370-4225

www.oakland.edu/biology

Program Coordinator:

Sara Blumer-Schuetz

biogradprograms@oakland.edu

Program Description

The Master of Arts in Biology is a non-thesis master's program that has a broad course component, and an optional research component. The Master of Arts in Biology is designed for pre-professional students or those who wish to teach at the secondary or community college level.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Review of applications will begin on the following dates:

- March 1 for fall and summer semesters
- September 1 for winter semester
- **International applicants:** September 1 for winter semester, and January 1 for fall and summer semester.

Applications for fall semester that are received after the program due date, but before university deadlines, may be reviewed, subject to space availability.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants should have earned a bachelor's degree in biology or related subject (e.g., biomedical sciences, health sciences, biochemistry, molecular biology, botany or zoology) from a regionally accredited institution or proof of a U.S. equivalent degree for internationally educated applicants.
 - Applicants with an earned bachelor's degree in another discipline must have completed 5 lecture courses in biology, 2 lecture courses in college-level mathematics, 1 lecture course in physics and 3 lecture courses in chemistry. Applicants with undergraduate prerequisite course deficiencies in these areas must complete the preparatory course work before being admitted to the program.
 - An essay (goal statement) describing their interest in the program and career goals.

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and evidence of the capacity for graduate study may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a specified number of graduate credits, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Transfer Credits

Official transcripts must be on file in Oakland University Graduate School. The credits earned must be from a regionally accredited institution and must carry a grade of 3.0 (B) or better. Courses graded Pass/Fail or Credit/Non-Credit are not transferable. Credit must be earned within six years of the time the degree will be conferred and may not have been used toward another degree. Only courses labeled "graduate" (numbered 5000 and above) may be transferred. The total number of credits transferred may not exceed 9, and no more than 1

credit will be awarded per week of instruction (i.e., a 4-credit course must meet a minimum of 14 hours per week for four weeks - a minimum total of 56 class hours or 47 clock hours of instruction).

Degree Requirements

The candidate for the Master of Arts in Biology degree must complete 32 credits of biology graduate-level lecture courses.

Course Requirements

- 32 credits of 5000-level courses in Biology (excluding **BI05101 Gross Anatomical Dissect**, **BI05600 Adv Physiology/Pathophysio I** and **BI05602 Adv Physiology/Pathophysio II**) approved by the Biological Sciences Graduate Advisor.
- 4 credits of **BI05995 Graduate Project Research**, Graduate Project Research, may be substituted for one of the lecture courses.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of (B) 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the Biological Sciences Graduate Advisor and submitted to the Oakland University Graduate School by the Biological Sciences Graduate Advisor.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

English

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	English	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

English, Creative Wrtg, & Film

Credit Total

36

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of English

544 O'Dowd Hall ([map](#))

(248) 370-2251 • Fax (248) 370-4429

www.oakland.edu/english

Coordinator:

Joanne Lipson Freed

540 O'Dowd Hall

(248) 370-2255

freed@oakland.edu

Program Description

The Master of Arts in English enables students to deepen their knowledge of literature and explore the real-world applications of the skills that literary study cultivates, including attentiveness to language, critical thinking, persuasive writing, and social awareness. Courses in the program will expose students to a range of literary forms, historical periods, and methodological approaches, focusing on the interconnectedness of literature and society and literature's relationship to social change, both past, and present.

The program serves the needs of a variety of students, including both those who plan to pursue academic or teaching careers, and those whose interest in literary studies will lead them to work in other areas.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- For **International students**: May 1 for fall (September) admission and September 1 for winter (January) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - An English major is not required, but successful completion of a substantial number of undergraduate English courses is generally expected.
 - Generally, successful candidates will have earned a 3.5 average GPA (or comparable) in English courses.
 - Applicants with insufficient background in literary studies may be advised to improve their preparation by taking an appropriate number of departmental undergraduate courses. Applicants must complete such preparatory course work before being eligible for admission to the graduate program.
 - **Additional Recommendation for Graduate Admission form**
In addition to the two Recommendation for Graduate Admission forms, listed above, a third recommendation is required by the program.
 - **Requirements for recommendations:**
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant
 - Where possible, all three recommendations must be from academic instructors who can speak to the applicant's academic record and potential in literary studies. (In some cases, it may be appropriate for one recommendation to be provided by another qualified evaluator, such as a supervisor or employer.)

- Statement of Purpose of approximately 700 words describing reasons for wishing to pursue the advanced study of literature and language
- Writing sample, a critical or interpretive essay, of no more than 3000 words, which demonstrates the candidate's qualification for graduate study in literature.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department. All students admitted to the Master of Arts in English degree program enter on a provisional basis.

Enrollment for all courses is subject to the written approval of the chairperson or a graduate adviser.

Degree Requirements

The Master of Arts in English degree is awarded upon satisfactory completion of 36 credits in an approved program of study.

Course Requirements (36 credits)

a. Required Courses (12 credits)

The following three courses are required of all students. Students are encouraged to complete them at the earliest point possible, as they lay the groundwork for further study.

- **ENG5200 Methods/Contexts Lit Analysis** Methods and Contexts of Literary Analysis (4 credits)
- **ENG5300 Essays, Genres, and Publics** Essays, Genres, and Publics (4 credits)
- **ENG5400 Literature and Social Engageme** Literature and Social Engagement (4 credits)
- Students must complete at least two courses at the 5000-level to be eligible for 6000-level coursework.

b. Electives (20 credits)

Students must take five additional courses (20 credits). These courses must include:

- At least one 6000-level seminar (not ENG 6996)

c. English 6996: The Master's Project (4 credits)

ENG6996 The Master's Project projects are completed under the supervision of a faculty advisor. Students have the primary responsibility for determining the nature and focus of project they want to pursue and identifying a suitable advisor; the advisor will

guide and support the student's work on the project and evaluate its success. Students must submit an application for **ENG6996 The Master's Project**, which includes the title and overview of the project and a preliminary bibliography, at least four weeks prior to the beginning of the semester in which they will complete the project.

Course Repeats

When there is significant change in content, the following courses may be repeated for a maximum of 12 credits each:

- **ENG5400 Literature and Social Engageme** Literature and Social Engagement (4 credits)
- **ENG5900 Topics Literature/Language** Topics in Literature and Language (2 to 4 credits)
- **ENG5904 Literary Kinds: Fiction** Literary Kinds: Fiction (4 credits)
- **ENG5905 Literary Kinds: Drama** Literary Kinds: Drama (4 credits)
- **ENG5906 Literary Kinds: Poetry** Literary Kinds: Poetry (4 credits)
- **ENG5907 Modes or Special Forms** Literary Kinds: Modes or Special Forms (4 credits)
- **ENG6900 Studies in Language/Literature Seminar:** Studies in Language and Literature (4 credits)
- **ENG6910 Seminar: Studies/ Lit. Theory** Seminar: Studies in Literary Theory (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship

- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for a degree, a candidate must complete his/her program with a grade point average of at least 3.0 in the course work submitted for the degree. Two grades below 3.0 will render a student subject to evaluation and possible dismissal, as will one grade below 2.5.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Classification of Course Offerings

The graduate program of the Department of English offers three kinds of courses.

- Foundational courses (5000 level)
5000-level courses are designed to familiarize the student with the principal approaches to literature and language and with methods and tools appropriate to those approaches. These courses are central to the graduate program because they prepare the student for the more specialized work of the seminars.
- Seminars (6000 level)
The graduate seminar allows the student to do advanced work in an area in which the instructor has special expertise. The instructor will prescribe the subject matter of each course during any given semester. Completion of at least two courses at the 5000 level is a prerequisite for enrollment in a 6000-level course. Seminars are limited to 15 students.

Cognate Courses

Students in the Master of Arts in English program may, with written approval of the graduate Program Director, offer one graduate course from another department for credit toward their degrees. Such courses should be advanced work in a field relevant to the student's special interests and needs.

Foreign Language

Students planning to pursue a Ph.D. should become proficient in at least one foreign language.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

English

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MA	English	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

English, Creative Wrtg, & Film

Credit Total

144

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

Requirements for English, B.A. to M.A. degree

The English B.A. to M.A. program allows students to make accelerated progress toward the English M.A. by completing coursework for the English B.A. and M.A. degrees simultaneously and counting up to three M.A. courses toward the B.A. while paying undergraduate tuition rates for those courses.

Admission to the B.A. to M.A. accelerated program is granted only by the Department of English.

To be eligible for the English B.A. to M.A. program, students must:

1. Have completed at least 20 credits toward the English major, including **ENG2100 Intro to Literary Studies Introduction to Literary Studies** and at least two courses at the 3000 level
2. Have an overall GPA of at least 3.0 and an in-major GPA of at least 3.5.
3. Apply for and receive delayed admission into the program

Upon completion of all B.A. degree requirements, students with deferred admission into the graduate M.A. program who have maintained an overall undergraduate GPA of 3.00 and earned a minimum 3.0 grade in each of their graduate courses will be formally admitted to the M.A. program. The 12 credits to be double-counted will be designated as applicable to the graduate degree after the student receives the B.A. degree and is formally accepted into the graduate program. This designation will be canceled if the student is denied formal admission or withdraws from the graduate program.

Students who receive approval to enter the program will substitute three of the following graduate-level courses for three 3000-level ENG courses that count toward the English B.A.

- **ENG5810 Lit History: British Medieval Literary History: British Medieval (4)**
- **ENG5811 Lit Hist: Ren/Early Mod Brit Literary History: British Early Modern (4)**
- **ENG5812 Lit Hist:Restor & 18th C Brit Literary History: Restoration & Eighteenth-Century (4)**
- **ENG5813 Lit Hist:British Romanticism Literary History: British Romanticism (4)**
- **ENG5814 Lit. History: Victorian Literary History: Victorian (4)**
- **ENG5815 Lit Hist: Early American Lit Literary History: British Since 1900 (4)**
- **ENG5816 Lit History: Postcolonial Literary History: Postcolonial (4)**
- **ENG5820 Lit Hist: Early American Lit Literary History: Early American (4)**
- **ENG5821 Lit Hist:American 19th Century Literary History: American Nineteenth-Century (4)**
- **ENG5822 Lit Hist:American 20th Century Literary History: American Twentieth-Century (4)**
- **ENG5823 Lit Hist:American Post WWII Literary History: American Post-WWII (4)**
- **ENG5900 Topics Literature/Language Advanced Topics in Literature and Language (2-4)**
- **ENG5904 Literary Kinds: Fiction Literary Kinds: Fiction (4)**
- **ENG5905 Literary Kinds: Drama Literary Kinds: Drama (4)**
- **ENG5906 Literary Kinds: Poetry Literary Kinds: Poetry (4)**
- **ENG5907 Modes or Special Forms Literary Kinds: Modes or Special Forms (4)**

Students in the combined program will not take **ENG5200 Methods/Contexts Lit Analysis Introduction to Graduate Studies** and **ENG5330 Critical Theory/Practice Critical Theory/Practice** until after they have been admitted to the M.A.; for these students only, **ENG5200 Methods/Contexts Lit Analysis** and **ENG5330 Critical Theory/Practice** will be considered co-requisites for 6000-level coursework.

Students who apply for and then opt out of the combined program may still count any 5000-level M.A. classes they have completed successfully toward the B.A. as 3000-level electives.

To apply to the accelerated English B.A. to M.A. program, contact Professor Joanne Lipson Freed, English M.A. Program Director, at (248) 370-2255 or freed@oakland.edu

Note

Students using this catalog to meet English major requirements may also use any course subsequently approved as satisfying requirements in any of the literature categories and published in a later catalog.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

History

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	History	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

History

Credit Total

30

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of History

415 Varner Hall ([map](#))

(248) 370-3510 • Fax (248) 370-3528

www.oakland.edu/history/

Graduate Coordinator:

Sara Chapman Williams

414 Varner Hall

(248) 370-3526

hastings@oakland.edu

Program Description

This program may serve either as a terminal degree or as a bridge to more advanced study and is designed to accommodate both full-and part-time students.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications are not eligible for admission review by the program.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

2. **Additional department application requirements**

- Applicants must have earned a baccalaureate degree in history from a regionally accredited institution or provide proof of a U.S. equivalent degree for foreign educated applicants. The department reserves the right to waive the requirement of a history degree for students with outstanding undergraduate records.
- Applicants should have a minimum GPA of 3.5 (on a 4.0 scale) in undergraduate history courses with a cumulative GPA of 3.2.
- **Recommendation for Graduate Admission form:**
Two *Recommendation for Graduate Admission* forms, listed above under University graduate application requirements, which give evidence of academic distinction. **History applicants must request EACH RECOMMENDER upload a letter of recommendation to the *Recommendation for Graduate Admission* form.** (At least one should be from the applicant's current or former professor.)
- Detailed statement of purpose or justification for entering the graduate program, which demonstrates that the candidate's potential course of study coincide with the strengths of the department.
- Academic writing sample (preferably a history research paper).

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Arts in History degree is awarded upon satisfactory completion of at least 30 credits in an approved program of study. In special cases, the Department of History Graduate Committee may permit a student to substitute up to 12 graduate credits in related fields for history credits.

Course Requirements

a. Core requirements (16 credits)

- HST6941 Colloquium I Colloquium I (4 credits)
- HST6942 Colloquium II Colloquium II (4 credits)
- HST6945 Graduate Research Seminar I Graduate Research Seminar I (4 credits)

At least one of the following:

- HST6946 Graduate Research Seminar II Graduate Research Seminar II (4 credits)
- HST6995 Research Tutorial I Research Tutorial I (4 credits)
- HST6996 Research Tutorial II Research Tutorial II (4 credits)

b. Electives (8 credits)

- HST5920 Directed Readings I Directed Readings I (2 or 4 credits)
- HST5921 Directed Readings II Directed Readings II (2 or 4 credits)
- HST5980 Historical Research Seminar I Historical Research Seminar I (4 credits)
- HST5981 Historical Research Seminar II Historical Research Seminar II (4 credits)

Any HST 5000-level course

- HST6946 Graduate Research Seminar II Graduate Research Seminar II (4 credits)
- HST6995 Research Tutorial I Research Tutorial I (4 credits)
- HST6996 Research Tutorial II Research Tutorial II (4 credits)

HST 6946, HST 6995 and HST 6996 may satisfy either Core Requirements or Electives but not both

c. Exit (6 credits)

Students will elect to complete 1) a thesis or 2) a project in public history, digital history, or curricular development to satisfy the exit requirements. Before beginning work on their thesis or project, students must **select** a department mentor and co-mentor and **notify** the graduate coordinator of their choice.

- HST6997 Master Thesis Master Thesis (1 to 6 credits)
- **Master Thesis option**

Students need to enroll in 6 credits of HST 6997. All theses must conform to university standards and be completed, defended and submitted in accordance with university formatting and deadlines (see Thesis and Dissertation).

- HST6999 Master Project Master Project (1 to 6 credits)

- **Master Project option**

Students need to enroll in 6 credits of HST 6999. Students must submit a prospectus to their faculty mentors and graduate coordinator for approval before undertaking the project. The Master Project requires a verbal defense.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirement: Graduate students must maintain grades higher than 3.0 in every course. In addition, students who do not have a cumulative GPA of at least 3.4 after completing 12 credits will lose their good academic standing. Students who lose their good academic standing may petition the department's graduate committee **one time** for a **one-time** exception from these conditions.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Oakland University Slash Courses

Students may not enroll for graduate courses corresponding in title and/or coverage with undergraduate history courses for which they have previously gained credit at Oakland University.

No 4000-level courses may count toward a graduate degree program.

Foreign Language

There is no general foreign language requirement for the M.A. in history, but to study certain fields the candidate may need a reading knowledge of a foreign language. Candidates must consult their advisers for the language requirements of specific courses and programs.

Graduate Student Handbook

The Graduate Student Handbook can be found at the department's Web site: **www.oakland.edu/history/gp_masters.cfm**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Liberal Studies

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MALS	Liberal Studies	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Liberal Studies

Credit Total

36

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Liberal Studies Program

217 Varner Hall ([map](#))

(248) 370-2154 • Fax (248) 370-4280

www.oakland.edu/mals

Director:

Interim Director:

Joe Shively, associate dean

College of Arts and Sciences

217 Varner Hall

shively@oakland.edu

Executive Committee:

Adolfo Campoy-Cubillo, associate professor, Spanish

Jon Carroll, assistant professor, Anthropology

Alta Dantzler, associate professor, Music

Rebekah Farrugia, associate professor, Communication

Fay Hansen, associate professor, Biology

Li Li, associate professor, Mathematics

George Milne, associate professor, History

Alexander Rusakov, associate professor, Chemistry

Program Description

The Master of Arts in Liberal Studies is an innovative and rigorous interdisciplinary approach to graduate education designed for adult post-baccalaureate students wishing to explore new subjects, develop their intellectual resources, and extend their range of knowledge. The objectives of this program are in harmony with the goals of a liberal education: that is, to cultivate the individual's ability to integrate diverse fields of human knowledge and activity.

The program is not specifically vocational or professional but is valued by employers in a wide range of professions because it fosters intellectual development, hones and expands critical thinking skills, encourages personal creativity and intellectual flexibility, and provides broad-based knowledge across traditional academic disciplines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- Graduate application requirements**
- Additional department application requirements**
 - Personal goal statement summarizing academic and/or professional background as well as objectives for entering the program.
 - A minimum of a 3.0 grade-point on a 4.0 scale in undergraduate study. Students who do not meet the grade-point minimum and/or other requirements may be admitted on a provisional basis with the approval of the director and the executive committee. All conditions placed on such an admission must be met before full admission to the program will be granted.
 - Requirements for recommendations:
At least two strong letters of recommendation that directly address the applicant's intellectual interests as well as academic background and potential for success in a graduate program. Students applying within two years of university graduation must have letters from two of their professors assessing the quality of their undergraduate record and their potential as students at the graduate level.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Transfer Credit

Up to 8 graduate credits completed in residence at another institution may be applied toward the 36-credit minimum degree requirement. Transfer credits must be approved by the program's executive committee and are subject to the conditions indicated in Oakland University's "Transfer Credit Policy" in the graduate catalog. Up to 8 graduate credits may be applied from another Oakland University school, subject to the approval of the program's executive committee.

Degree Requirements

Candidates for the degree of Master of Arts in Liberal Studies will complete 36 credits of coursework beyond the bachelor's degree. All students must complete a core of three courses which include an introductory colloquium and two core seminars. Students will then choose five liberal studies electives which are cross-listed with the College of Arts and Sciences' graduate course offerings. The student must take a minimum of 4 credits in each of the four designated areas: languages and literatures, humanities, social sciences, and science. The final requirement is the 4-credit final project. No more than 8 credits may be taken as independent study (**LBS5970 Independent Study**).

Course Requirements (36 credits)

a. Core Requirements (12 credits)

LBS5940 Introductory Colloquium Introductory Colloquium (4 credits)

Choose two core seminars from the following. Courses vary each semester. See MALS Web site for information on courses for the coming semester.

- **LBS5941 Seminar Language/Literature Seminar in Language and Literature** (4 credits)
- **LBS5942 Seminar in the Humanities Seminar in the Humanities** (4 credits)
- **LBS5943 Seminar in Social Sciences Seminar in the Social Sciences** (4 credits)
- **LBS5944 Seminar in the Sciences Seminar in the Sciences** (4 credits)

b. Electives (20 credits)

Five electives including 4 credits in each of the following categories:

- **LBS 5900 - Topics in Language/Literature** (2 or 4 credits)
- **LBS5902 Topics in the Humanities** Topics in the Humanities (4 credits)
- **LBS5904 Topics in Social Sciences** Topics in the Social Sciences (4 credits)
- **LBS5906 Topics in the Sciences** Topics in the Sciences (4 credits)

c. Exit (4 credits)

All students complete a final master's project (LBS 6996), which will integrate theory and methods from two or more academic disciplines. The three core courses (the colloquium and two core seminars), plus five electives must be completed before beginning the final project. A project committee, consisting of a chair and two faculty members, will guide the student in preparing their final project proposal which must be approved by the program's executive committee prior to registering for LBS 6996.

- **LBS6996 Master's Project** Master's Project (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.
- Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Linguistics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Linguistics	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Linguistics

Credit Total

36

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

Department of Linguistics

113 Fitzgerald House ([map](#))

(248) 370-2175 • Fax (248) 370-3144

www.oakland.edu/linguistics

Graduate Adviser:

Michael Smith

114 Fitzgerald House

(248) 364-8811

smith@oakland.edu

Program Description

The Master of Arts degree in Linguistics provides post-baccalaureate instruction in current linguistic theory and in applied linguistics. The degree is intended to accommodate students who have done previous work in linguistics, as well as those who have had little exposure to the subject.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. **Additional department application requirements**
 - Although an undergraduate major in linguistics is not a requirement for admission, applicants must have a demonstrated knowledge of the basic principles of linguistics, as would be encountered in an introductory linguistics course.
 - Applicants should have earned a baccalaureate degree with a minimum GPA of 3.0 (on a 4.0 scale).
 - Recommendation for Graduate Admission form: Two recommendation forms must be from academics familiar with the applicant's abilities being able to complete the program efficiently.
 - Applicants must explain in a statement of purpose their reasons for wishing to pursue graduate studies in linguistics.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Arts in Linguistics degree will be awarded to the student who earns 36 credits in nine courses as specified below. A minimum grade of C in each course and an overall minimum GPA of 3.00 are required for the M.A. degree.

All students must complete **LIN5503 Introduction to Phonology** (Introduction to Phonology) and **LIN5504 Introduction to Syntax** (Introduction to Syntax). Upon completion of **LIN5503 Introduction to Phonology** and **LIN5504 Introduction to Syntax**, students will be evaluated for admission to candidacy and will choose an area of specialization in consultation with the graduate coordinator.

Upon admission to candidacy, the student will choose an area of specialization from among the following three: linguistic theory, teaching English to speakers of other languages or language arts. Non-native speakers of English who wish to specialize in teaching English to speakers of other languages must satisfactorily complete an oral and written examination in English. Other specializations may

be developed in consultation with the graduate coordinator. At least 16 credits (four courses) of work must be in the area of specialization.

All students must also complete **LIN6998 Seminar in Linguistics** (Seminar in Linguistics) or **LIN6999 Master's Thesis** (The Master's Thesis).

General Requirements

- Nine courses (36 credits)
- No more than 8 credits in courses from other departments
- Either a) two years of foreign language study, or b) one year of foreign language study and **LIN5609 Studies/Structures in a Language**; in either case, demonstrated first year proficiency in at least one foreign language is required. First year proficiency can be demonstrated by satisfactory completion of a foreign language course at the 1150-level.

Course Requirements

a. Foundation Requirement (4 credits)

The graduate coordinator will review undergraduate transcripts and determine if the foundation course is needed. The course is not required of all students entering the program and is not included in the 36-credit program total.

- **LIN2201 Intro to Linguistics** Linguistic Structures (4 credits)

b. Core Requirements (8 credits)

- **LIN5503 Introduction to Phonology** Introduction to Phonology (4 credits)
- **LIN5504 Introduction to Syntax** Introduction to Syntax (4 credits)

c. Specializations (choose one)

1. Linguistic Theory (24 credits)

- **LIN5603 Phonological Theory** Phonological Theory (4 credits)
or
- **LIN5613 Advanced Phonology** Advanced Phonology (4 credits)
- **LIN5604 Syntactic Theory** Syntactic Theory (4 credits)
or
- **LIN5614 Advanced Syntax** Advanced Syntax (4 credits)
- **LIN5502 Historical Linguistics** Historical Linguistics (4 credits)
or

- **LIN5507 Introduction to Semantics Introduction to Semantics (4 credits)**

One (1) of:

- **LIN5505 Phonetic Theory Phonetic Theory (4 credits)**
- **LIN5507 Introduction to Semantics Introduction to Semantics (4 credits)**
- **LIN5557 Cognitive Linguistics Cognitive Linguistics (4 credits)**

Two (2) electives (8 credits)

2. Teaching English to Speakers of Other Languages (24 credits)

- **ALS5538 Curr, Mat Des, Assess, Compl Curriculum, Material Design, Assessment and Compliance (4 credits)**
- **ALS5518 Tchng Engl to Multling Learner Teaching English to Multilingual Learners (4 credits)**
- **ALS5589 Tchng Eng Lang Special Needs Teaching English Language Learners with Special Needs (4 credits)**
- **LIN5575 Language and Culture Language and Culture (4 credits)**
- **LIN5534 Language Acquisition Language Acquisition (4 credits)**
- **ALS5960 Practicum Practicum (4 credits)**

3. Language Arts (24 credits)

- **ALS5538 Curr, Mat Des, Assess, Compl Curriculum, Material Design, Assessment and Compliance (4 credits)**
 - **LIN5534 Language Acquisition Language Acquisition (4 credits)**
 - **LIN5535 Psycholinguistics Psycholinguistics (4 credits)**
- or
- **ALS5518 Tchng Engl to Multling Learner Teaching English to Multilingual Learners (4 credits)**
 - **LIN5604 Syntactic Theory Syntactic Theory (4 credits)**
- or
- **LIN5614 Advanced Syntax Advanced Syntax (4 credits)**

Two (2) electives (8 credits)

d. Exit (4 credits)

- **LIN6998 Seminar in Linguistics Seminar in Linguistics (4 credits)**
- or
- **LIN6999 Master's Thesis The Master's Thesis (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned graduate coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the graduate coordinator and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

4000/5000 Slash Courses

Courses at the 4000-level cannot be used to satisfy a graduate degree program. If a 4000/5000 slash course was completed as part of baccalaureate degree, the 4000-level course may be used to satisfy a graduate program requirement, however, the credits will not be counted toward the graduate degree program. The student will be required to earn the credit by completing a graduate course substitution approved by the program coordinator.

Practicum Eligibility

Eligibility for the Practicum (**ALS5960 Practicum**) requires completion of **ALS5518 Tchng Engl to Multling Learner** and **ALS5538 Curr, Mat Des, Assess, Compl** with a grade of B (3.0) or higher.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mathematics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Mathematics	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Mathematics and Statistics

368 Mathematics and Science Center ([map](#))

(248) 370-3430 • Fax (248) 370-4184

<http://www.oakland.edu/math/>

Graduate Coordinator:

Li Li

350 Mathematics and Science Center

(248) 370-3447

li2345@oakland.edu

Program Description

The program leading to the degree of Master of Arts in Mathematics provides students with a sound theoretical knowledge of modern mathematical sciences and ample opportunity to learn about the applications of the mathematical sciences, the construction of mathematical models and the art of problem solving. The program is designed to serve those who wish to enter a Ph.D. program in mathematical sciences or to teach at the secondary or community college level. (This program does not provide secondary education certification: contact the School of Education and Human Services for information on certification.) Courses required for the program are offered in the late afternoon or evening to accommodate the part-time student. Teaching assistantships are available to fulltime students on a competitive basis.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Requirements for Recommendations
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants who wish to be considered for a teaching assistantship should also submit a brief (up to 500 words) personal statement describing their goals and any prior teaching experience or other potentially relevant background. This statement should be sent to the Graduate Coordinator no later than February 15 in order to be considered for an appointment for the following academic year.
 - A baccalaureate degree from a regionally accredited institution with a 3.0 GPA or better.
 - Normally the mathematical preparation requires at least 30 semester credits in undergraduate mathematics including courses in multivariable calculus, linear algebra and differential equations. Students who have not had an undergraduate course in abstract algebra or advanced calculus may be required to complete one or both of these courses as a prerequisite to regular admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for the Master of Arts in Mathematics a student must successfully complete, with at least a B- in each course and an overall GPA of 3.0 or better, a 32-credit program as outlined below.

Course Requirements (32 credits)

a. Core Requirements (24 credits)

Required (4 credits)

- **MTH5551 Real Analysis** Real Analysis (4 credits)
- **MTH5771 Algebra I** Algebra I (4 credits)

Choose 3 courses (minimum) from the following:

- **MTH5052 Advanced Calculus I** Advanced Calculus I (4 credits)
- **MTH5053 Advanced Calculus II** Advanced Calculus II (4 credits)
- **MTH5075 Abstract Algebra I** Abstract Algebra I (4 credits)
- **MTH5076 Abstract Algebra II** Abstract Algebra II (4 credits)
- **MTH5555 Complex Analysis** Complex Analysis (4 credits)
- **MTH5661 Topology I** Topology I (4 credits)
- **MTH5920 Directed Reading and Research** Directed Reading and Research (4 credits)
- **MTH6551 Functional Analysis I** Functional Analysis (4 credits)
- **APM5553 Adv Ordinary Diff Equations** Advanced Ordinary Differential Equations (4 credits)
- **APM5557 Adv Partial Diff Equations** Advanced Partial Differential Equations (4 credits)
- **APM5666 Computational Geometry** Computational Geometry (4 credits)
- **APM5669 Graph Theory & Applications** Graph Theory and Applications (4 credits)
- **APM5777 Computer Algebra** Computer Algebra (4 credits)
- **APM5881 Theory of Computation** The Theory of Computation (4 credits)
- **APM6334 Num Meth Partl Diff Equa** Numerical Methods for Partial Differential Equations (4 credits)
- **APM6664 Combinatorial Optimization** Combinatorial Optimization (4 credits)
- **APM6773 Coding Theory** Coding Theory (4 credits)

This list may be expanded in the future, check with the graduate coordinator for an up-to-date list. All other course selections must be approved by the student's adviser. Mathematical sciences include the rubrics APM, MTH, MOR, STA, and BST.

b. Electives (8 credits)

Eight credits of electives are required. At most, 8 credits of elective courses outside of the mathematical sciences can be used. Course selections must be approved by the student's adviser.

c. Comprehensive Examination

Each student must pass a comprehensive examination devised by a committee appointed by the Graduate Coordinator. Details on the format of this exam can be obtained from the Graduate Coordinator. A student who fails this exam on the first attempt may make, at most, one additional attempt.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.00.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To fulfill the requirements for the Master of Arts in Mathematics a student must successfully complete, with at least a B- in each course and an overall GPA of 3.00 or better, a 32-credit program as outlined above.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mathematics

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MA	Mathematics	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

140

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Requirements

The Accelerated Bachelor of Science in Mathematics to Master of Arts in Mathematics Program (Combined B.S./M.A.) option is designed for highly motivated and qualified students pursuing a Bachelor of Science in Mathematics at Oakland University and wishing to complete a Master of Arts Degree in Mathematics directly following. The Accelerated Combined B.S./M.A. Program allows students to take 3 graduate level courses, **MTH5052 Advanced Calculus I**, **MTH5075 Abstract Algebra I**, and 1 of either **MTH5053 Advanced Calculus II** or **MTH5076 Abstract Algebra II** while still an undergraduate and pay undergraduate tuition rates. These 3 graduate-level courses will substitute for **MTH4052 Advanced Calculus I**, **MTH4075 Abstract Algebra I** and **MTH4053 Advanced Calculus II** or **MTH4076 Abstract Algebra II** within the B.S. in Mathematics Program.

To be eligible for the Mathematics, Combined B.S./M.A. option, students must:

1. Complete **MTH2554 Multivariable Calculus**, **MTH2775 Linear Algebra**, **MTH3002 Intro Adv Mathematical Thinkng**, and **STA2226 Applied Probability and Stat.**
2. Have a strong quantitative background and a major GPA of 3.3 or above.
3. Apply for and receive delayed admission into the M.A. program and thereby the substitution of graduate classes **MTH5052 Advanced Calculus I**, **MTH5075 Abstract Algebra I**, and either **MTH5053 Advanced Calculus II** or **MTH5076 Abstract Algebra II** for **MTH4052**

Advanced Calculus I, **MTH4075 Abstract Algebra I** and either **MTH4053 Advanced Calculus II** or **MTH4076 Abstract Algebra II**.

Note: Students must receive formal delayed admission into the program to be eligible to register for **MTH5052 Advanced Calculus I**, **MTH5075 Abstract Algebra I**, and 1 of either **MTH5053 Advanced Calculus II** or **MTH5076 Abstract Algebra II**.

4. Complete **MTH5052 Advanced Calculus I**, **MTH5075 Abstract Algebra I**, and 1 of either **MTH5053 Advanced Calculus II** or **MTH5076 Abstract Algebra II** with a grade of (B) or better.

5. Maintain a minimum 3.3 cumulative GPA to completion of the B.S. degree in mathematics.

Students admitted to this accelerated program can graduate with an M.A. degree in 5 years.

To apply:

To apply to the Mathematics, Combined B.S./M.A. program, contact Professor Darrell Schmidt, schmidt@oakland.edu, 552 Mathematics and Science Center, (248) 370-3433.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Communication

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Communication	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Communication, Journalism & PR

Credit Total

32

Delivery Method Required

in person

Summer Semesters
0

Requirements

Program Requirements

Department of Communication, Journalism and Public Relations

316 Wilson Hall ([map](#))

(248) 370-4120 • Fax (248) 370-4208

<https://www.oakland.edu/cj/>

Program Coordinator:

Rebekah Farrugia

306 Wilson Hall

(248) 370-2065

farrugia@oakland.edu

Program Description

The Master of Arts degree in Communication provides intellectual grounding in communication theory and research methods. The program offers opportunities for those wishing to pursue a Ph.D. in communication or a related discipline. It also will be valuable for practitioners in business, education, media or nonprofit organizations seeking professional enhancement.

The program is committed to a critical approach to the study of communication and recognizes the central role communication plays in the creation of productive relationships across divisions of identity, culture, and geography and in building more sustainable, equitable, and enriched communities in our increasingly globally connected world. Students are trained in diverse methodological and epistemological approaches to the study of communication, including rhetoric, intercultural communication, cultural studies, interpersonal communication, and media studies.

Upon graduation, students will have gained a greater understanding of the impact of communication in a range of contexts; a general knowledge of research approaches in communication; and an ability to further the research, writing and analytical skills needed in today's world.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Applicants can be admitted to this program in both fall and winter semesters. The application deadlines are:

February 15 (early)

(**International students** and graduate assistantship deadline), April 15 (regular), and July 15 (late) for fall semester and November 1 for winter semester.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants should have a minimum overall undergraduate GPA of B or higher.
 - Requirements for recommendations:
The two *Recommendation for Graduate Admission* forms must be from faculty members familiar with the applicant's academic work. For applicants, who have been out of school for more than 5 years, at least one recommender must be a faculty member who is able to judge the applicant's preparation and ability to undertake graduate study. Substitutions for a faculty recommendation may include work supervisors or approved others who can comment on the applicant's academic potential for graduate work.
 - Statement of purpose of no less than 500 and no more than 1000 words detailing the reasons why the applicant is pursuing advanced study of communication and what kind of work they seek to pursue. Statements should also explain why the Oakland University Master of Arts in Communication program is a good match for the applicant's interests and goals.
 - Professional resume.
 - International applicants must have scores at or above the 90th percentile on the TOEFL examination.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Arts in communication degree is awarded upon satisfactory completion of 32 graduate credits in an approved program of study as follows.

Course Requirements (32 credits)

a. Core Requirements (8 credits)

Required course:

- **COM5002 COM Studies Scholarship Communication Studies Scholarship (4 credits)**

Choose 2 courses from the following:

- **COM5100 Qualitative Methods in Com Qualitative Methods in Communication (4 credits)**
- **COM5101 Quantitative Methods in Com Quantitative Methods in Communication (4 credits)**
- **COM6625 Audience Rsrh in Media Studies Audience Research in Media Studies (4 credits)**

b. Elective Courses (20 credits)

Choose 20 credits from the following list of courses.

- **COM5415 Sexuality and Com Sexuality and Communication (4 credits)**
- **COM5413 Com and Leadership Communication and Leadership (4 credits)**
- **COM5414 Health Com and Close Rel Health Communication and Close Relationships (4 credits)**
- **COM5900 Special Topics in COM Special Topics in Communication (4 credits)**
- **COM6460 Organizational Com Theory Organizational Communication Theory (4 credits)**
- **COM6210 Culture and Communication Culture and Communication: Contexts and Issues (4 credits)**
- **COM6350 Feminist Rhetorical Theory Feminist Rhetorical Theory (4 credits)**
- **COM6211 Culture/Power/Representation Culture, Power and Representation (4 credits)**

- **COM6212 Com and Cultural Citizenship Communication and Cultural Citizenship (4 credits)**
- **COM6900 Spec Topics/Culture and Comm Special Topics in Culture and Communication (4 credits)**

- **COM5410 Advanced Interpersonal Com Advanced Interpersonal Communication (4 credits)**
- **COM5411 Family Communication Family Communication (4 credits)**
- **COM5412 Nonverbal Communication Nonverbal Communication (4 credits)**
- **COM6450 Interpersonal Com Theory Interpersonal Communication Theory (4 credits)**

- **COM5730 Theorizing Media Theorizing Media (4 credits)**
- **COM5950 Internship Internship (4 credits)**
- **COM5970 Independent Study Independent Study (2 or 4 credits)**
- **COM6610 Global Media Studies Global Media Studies (4 credits)**
- **COM6620 Video Games and Identity Video Games and Identity (4 credits)**
- **COM6621 Gender, Sexuality Gender, Sexuality, and the Media (4 credits)**
- **COM6625 Audience Rsrh in Media Studies Audience Research in Media Studies (4 credits)**

c. Exit Requirement (4 credits)

In consultation with the graduate director or another advisor, students will elect one of three exit options.

Creative project and thesis exit requirements will be reviewed by a committee of three faculty members (including the faculty advisor) selected by the student. Students who fail either the final competency exam or their creative project or thesis defense, with the permission of their committee, may be allowed one additional opportunity to re-take the exam or defend their creative project or thesis.

- **Advisor Approved Elective (4 credits) plus Final Competency Exam**
Students electing this option will meet with the Graduate Director to select a final course to complete their course work and discuss the particulars of the final competency exam. This option is appropriate for the following students: students enrolled in the program as a terminal degree, those not wishing to pursue independent research, or those seeking the degree for professional enhancement. The final competency exam will be adapted to reflect each individual student's course of study. The

exam will consist of a six hour in house exam. Students must receive a passing grade (P) on all questions to pass the exam.

OR

- **COM6996 Creative Project Creative Project (4 credits)**

The Creative Project option is appropriate for students interested in production or creative work, or in pursuing further graduate work such as a Master of Fine Arts degree. This option requires the completion of a creatively driven project that proposes new ideas and advances theoretical understanding of an issue. Possible formats for this option include film/video, audio, web, or other multi-media components. Similar to traditional theses, the project must demonstrate scholarly abilities, including solid conceptualization, analysis, and writing. The project is accompanied by a written component that includes a reflective and critical commentary on the process, methods, theories, history of the project, literatures or media reviewed, and any other conceptual areas deemed necessary by the student and the student's Project Committee. The project is defended in an oral examination.

Students electing the Creative Project option will be required to register for **COM6996 Creative Project Creative Project**.

Note: Students must have an overall GPA of B+ or higher in the program in order to select the creative project option and must choose a faculty adviser.

OR

- **COM6998 Thesis Thesis (4 credits)**

The Thesis option is appropriate for students interested in pursuing independent research, seeking to pursue further graduate work at the Ph.D. level, or interested in community college teaching.

Students electing the thesis option will be required to register for **COM6998 Thesis Thesis**. In addition, students will be required to participate in an hour-long oral defense. All theses must conform to university standards (see **Thesis and Dissertation**).

Note: Students must have an overall GPA of B+ or higher in the program in order to select the thesis option and must choose a faculty adviser.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a graduate assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Department requirements: At the end of any semester, a graduate student who earns an individual course grade below a B will be reviewed by the graduate program and subject to academic warning, probation, or dismissal, according to published program requirements. Additionally, any course in which students earned below a B grade will not count for credit towards the degree. As work progresses, two grades below B- are grounds for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Graduate Assistantships

A limited number of graduate assistantships are competitively awarded each academic semester to full-time students, based on GPA, GRE scores, evidence of research and recommendation letters. Assistantships include a stipend and a tuition reduction of 8 credits per fall and winter semesters. In return, graduate assistants work up to 20 hours per week assisting one or more faculty members in their research efforts.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Accounting

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MACC	Accounting	Major

Program Type

Master

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

30

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs
238 Elliott Hall ([map](#))
(248) 370-3287
OUgradbusiness@oakland.edu
<http://www.oakland.edu/business/grad>

Faculty Director, MAcc program:

Donna K. Free
412 Elliott Hall
(248) 370-3281
free@oakland.edu

Program Description

The Master of Accounting (MAcc) is offered in the Department of Accounting and Finance within the School of Business Administration and has earned separate accounting accreditation from the AACSB International. The MAcc is designed for students who are interested in careers in public, corporate, and non-business accounting. A MAcc student may earn a general MAcc degree or earn concentrations in Assurance or Taxation by completing designated electives within a specific area.

The degree will assist accounting professionals in the dynamic corporate environment. Professionals in the field are required to be effective communicators, maintain a high level of expertise, and uphold ethical responsibilities, while providing financial information, analysis of the economic environment and input in decision-making activities.

Keeping these qualities in view, the MAcc is designed to achieve the following goals:

- Offer a graduate-level program developing superior technical knowledge and application skills beyond the baccalaureate accounting program
- Enhance students' analytical, communication and decision-making skills
- Provide a sound base in ethics and professional behavior
- Prepare students for careers in public, corporate, and non-business accounting positions
- Provide students with the educational requirements necessary to be eligible to take professional exams

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Students

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Curriculum Vitae or Resumé

GMAT Policy

The GMAT/GRE is **not** required if you meet any of the following criteria:

- Earned a master's degree or higher with a minimum overall GPA of 3.0 or has earned a 75th percentile score on the GRE, LSAT, or MCAT entrance exam

- Earned a bachelor's degree with an overall GPA of at least 3.0 from an AACSB-accredited business school
- Earned a bachelor's degree in any major with an overall GPA of at least 3.2 from a regionally accredited program
- Completed a business-related certification such as CPA, CFA, CFP or FRM
- Has at least 3 years of relevant professional work experience and an undergraduate overall GPA of at least 2.75

If an applicant does not meet any of the above criteria, it is recommended that they connect with the Graduate Business Programs Office to discuss GMAT preparation and or other options to be considered for admission.

Admission review and assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, recommendation forms, prerequisite courses, and any other admission requirements established by the academic department.

MAcc Foundation Requirements

Students admitted to the MAcc program must demonstrate proficiency or complete coursework in the following areas.

- **ACC2000 Financial Accounting** Introductory Financial Accounting
- **ACC2100 Managerial/Cost Accounting I**, Managerial and Cost Accounting I
- **ACC4001 Intermediate Financial Acct I**, Intermediate Financial Accounting I
- **ACC4002 Intermediate Financial Acct II**, Intermediate Financial Accounting II
- **ACC4003 Managerial and Cost Acct II**, Managerial and Cost Accounting II
- **A college course in Micro or Macro Economics**

These program prerequisites must be completed prior to beginning MAcc coursework.

Degree Requirements

The Master of Accounting degree is awarded upon satisfactory completion of a minimum of 30 credits in an approved program of study. It consists of two or three parts depending on a student's undergraduate education.

Course Requirements (30 credits)

a. Foundation Courses (24 credits)

A foundation course may be waived if an equivalent course was previously completed with a grade of "C" or above. The MAcc student who is waived from foundation requirements must substitute graduate business electives to complete their 30-credit program. The MAcc Coordinator must approve these electives.

The following courses are required of all MAcc students:

- **ACC5150 Principles of Taxation** Introduction to Taxation (3 credits)
- **ACC5180 Accounting Information Systems** Accounting Information Systems: Planning and Analysis (3 credits)
- **ACC5220 Auditing** Auditing (3 credits)
- **ACC5310 Advanced Financial Accounting** Advanced Financial Accounting (3 credits)
- **ACC6010 Financial Analysis & Valuation** Financial Analysis and Valuation (3 credits)
- **ACC6220 Audit Analytics** Audit Analytics (3 credits)
- **FIN5330 Financial Management** Financial Management (3 credits)
- **QMM5100 Quantitative Methods for Mgrs** Quantitative Methods for Managers (3 credits)

b. Electives

Each MAcc student will be required to take a minimum of 9 credits of accounting courses from the following list. All courses are 3 credits unless otherwise noted.

- **ACC5050 Business Law for Acctg & Finan** Business Law for Accounting & Finance (3 credits)
- **ACC5210 Income Tax II** Income Tax II: US Taxation of Alternative Business Structures (3 credits)
- **ACC5240 Government/Not-for-Profit Acct** Government and Not-for-Profit Accounting (3 credits)
- **ACC5260 AIS: Audit and Control** Accounting Information Systems: Audit and Control (3 credits)
- **ACC 5330 - Accounting Information Systems: Analysis and Design** (3 credits)
- **ACC5500 Tax Research, Planning and Adm** Tax Research, Planning and Administration
- **ACC5520 International Tax** International Tax
- **ACC6170 Int'l Fin Actg Stndards & Rptg** International Financial Accounting Standards and Reporting (3 credits)
- **ACC6200 Cost Management** Cost Management (3 credits)
- **ACC6260 Enterprise Risk Management** Enterprise Risk Management (3 credits)

- **ACC6300 Accounting & Communication** Accounting and Communications (3 credits)
- **ACC6310 Fraud Examination** Fraud Examination (3 credits)
- **ACC6500 Professional Issues in Acc** Professional Issues in Accounting (3 credits)
- **ACC6900 Special Topics in Accounting** Special Topics in Accounting (3 credits)
- **ACC6970 Independent Study/Accounting** Independent Study in Accounting (1 TO 3 credits)
- **FIN5450 Real Estate Invest Analysis** Real Estate Investment Analysis
- **FIN5720 Adv Financial Management** Advanced Financial Management (3 credits)
- **FIN6900 Special Topics in Finance** Special Topics in Finance (3 credits)

If MAcc students want a more structured set of courses, they can complete the courses required to earn a concentration. Up to two concentrations can be noted on a student's transcript.

1. Assurance Concentration (9 credits)

Required course:

- **ACC6220 Audit Analytics** Audit Analytics (3 credits)

Elective Courses

Select two courses from the following:

- **ACC5260 AIS: Audit and Control** Accounting Information Systems: Audit and Control (3 credits)
- **ACC6260 Enterprise Risk Management** Enterprise Risk Management (3 credits)
- **ACC6310 Fraud Examination** Fraud Examination (3 credits)

2. Taxation Concentration (9 credits)

Required course

- **ACC5210 Income Tax II** Income Tax II: US Taxation of Alternative Business Structures (3 credits)

Elective courses

Select two courses from the following:

- **ACC5500 Tax Research, Planning and Adm** Tax Research, Planning and Administration (3 credits)
- **ACC5520 International Tax** International Tax (3 credits)
- **ACC6900 Special Topics in Accounting** Special Topics in Accounting (3 credits)

c. Exit

All students are required to take the Professional Accounting Research course. This course should be taken during the last semester, and coordinator permission is required.

- **ACC6995 Prof Accounting Research Professional Accounting Research (3 credits)**

Additional Program Information

- In compliance with university policy, no undergraduate courses will be transferred from another college or university and applied toward graduate degree requirements.
- Students must meet the prerequisites for all MAcc courses.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least

a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below 2.0 must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Accounting

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MAcc	Accounting	Major

Program Type

Combined Program

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

129

Delivery Method Required

In Person, Partially
Online (50% - 99%)

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined BS/MAcc is a combined bachelor/master degree program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently. It is designed for students who are high academic achievers and creates an integrated learning experience along several knowledge paths. The BS/MAcc program students will be able to earn their master's degree by completing no more than 9 credits of graduate courses (**ACC5150 Principles of Taxation**, **ACC5220 Auditing**, and **ACC5240 Government/Not-for-Profit Acct**) beyond the undergraduate Accounting major requirements.

Students accepted for the BS/MAcc program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MAcc Program and be offered deferred admission to the graduate program during their junior year. BS/MAcc applicants may request to waive the GMAT requirement. To be eligible for the waiver, applicants must have a cumulative GPA of 3.0 or higher. To request a waiver, download, complete, and submit the Request to Waive GMAT Form. This form is found under Supplemental Application, School of Business Administration.

It is important that students register for the 5000-level classes that are double counted in order to satisfy the electives requirement for the Accounting major as well as get credit towards the BS/MAcc program. If students take only the 4000-level electives, those courses cannot be counted for the BS/MAcc degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall

undergraduate GPA 3.2 and have earned a B or above in the double-counted graduate courses, will be reclassified as a graduate student through Graduate School.

To be eligible for the Accounting, Combined BS/MAcc option, students must:

1. Complete **ACC2000 Financial Accounting**, **ACC2100 Managerial/Cost Accounting I**, **ACC4001 Intermediate Financial Acct I**, **ACC4002 Intermediate Financial Acct II**, **ACC4003 Managerial and Cost Acct II**, **ACC4008 Intro-Data Analytics for Acctg**, and **ACC4180 AIS: Planning and Analysis**.
2. Have a major GPA of 3.2 or above.
3. Apply for and receive delayed admission in the M.S. program and thereby the substitution of graduate classes **ACC5150 Principles of Taxation**, **ACC5220 Auditing**, and in place of **ACC4150 Principles of Taxation**, **ACC4220 Auditing**, and **ACC4240 Gov and Not-for-Profit Acct**.
4. Maintain a minimum 3.2 cumulative GPA to completion of the degree in Accounting, B.S.
5. Students must receive formal delayed admission into the program prior to registering for **ACC5150 Principles of Taxation**, **ACC5220 Auditing**, and **ACC5240 Government/Not-for-Profit Acct**.

For more information

Contact Donna Free at: free@oakland.edu

For the full MS program requirements visit the Master of Accounting website.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Counseling

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Counseling	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Counseling

Credit Total

60

Delivery Method Required

in person

Summer Semesters
0

Requirements

Program Requirements

Department of Counseling

491B Pawley Hall ([map](#))

(248) 370-4179 • Fax (248) 370-4141

<http://www.oakland.edu/counseling/>

Coordinator:

James Hansen

450E Pawley Hall

(248) 370-3071

jthansen@oakland.edu

Program Description

The Department of Counseling offers a Master of Arts in Counseling degree for individuals who wish to work in professional counseling roles with children, youth, adults and families in school settings. The program can accommodate both full-time and part-time students.

Accreditation

The Master of Arts in Counseling with a school counseling emphasis is an accredited program determined by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) and prepares students for Michigan counseling licensure.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- April 1 for fall semester
- October 1 for winter semester

- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Grade-point average of 3.0 in all undergraduate coursework is ordinarily considered the minimum standard for admission.
 - All applicants must submit two essays as part of the application requirements:

Essay one: Applicants explain reasons for entering the counseling program and employment goals. Applicants should describe experiences and accomplishments in working with children, youth and/or adults. Additionally, applicants must describe their strengths and areas for growth from their perspective as well as the perspective of others.

Essay two: Applicants are asked to recall constructive feedback from past instructors and supervisors and describe a time when they were given constructive feedback and how they responded to it. The Counselor Competency Statement must be used as a guide and is available on the link (<https://www.oakland.edu/counseling/>).

The essay's will be evaluated based on a) clarity of goals, b) whether or not the applicant's goals are congruent with our program, c) experience and accomplishments, d) awareness of strengths and areas for growth, e) ability to receive and accept feedback, and f) writing skills.

- **Requirements for recommendations:**
Recommendations are important to the application procedure. The two required references must be from professionals, professors, or employers who can attest to the applicant's academic potential, readiness for graduate study, and interpersonal skills. All letters of recommendation will be rated on a case-by-case basis.
- Following a review of the above requirements, select students will be invited to an interview.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for

success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Admission to the Master of Arts in counseling degree program is selective; meeting minimum criteria does not guarantee acceptance into the program. In addition to graduate admission general requirements, applicants must also satisfy the admission requirements established by the academic program.

Degree Requirements

The Master of Arts in Counseling degree program is awarded upon satisfactory completion of 60 graduate-level credits in an approved program of study.

Students who complete the degree and who have a valid teaching certificate may be recommended for counselor endorsement at the K-9, 7-12, or K-12 level, depending on completion of the specific course requirements for each endorsement level. Students must consult with the internship instructor or internship coordinator regarding endorsement.

Course Requirements (60 credits)

a. Core Requirements (24 credits)

Required courses:

- **CNS5050 Intro to Counseling and Ethics Introduction to Counseling and Ethics (4 credits)**
- **CNS5060 Diversity/Social Justice Issue Diversity and Social Justice Issues (4 credits)**
- **CNS5070 Clinical Counseling Skills Clinical Counseling Skills (4 credits)**
(Required the first academic year in the program; CNS 5070 must be taken as a prerequisite or a corequisite with **CNS6030 Group Counseling**.)
- **CNS5080 Theories/CNS/Psychotherapy Theories of Counseling and Psychotherapy (4 credits)**
- **CNS5090 Individual/Family Development Individual and Family Development (4 credits)**
- **CNS6010 Testing/Assessment in CNS Testing and Assessment in Counseling (4 credits)**

b. Research and Clinical Courses (24 credits)

Required courses:

- **CNS6020 Career Develop Theory/Practice Career Development Theory and Practice (4 credits)**
- **CNS6000 Research in Counseling Research in Counseling (4 credits)**
- **CNS6030 Group Counseling Group Counseling (4 credits)**

- **CNS6150 Intro School CNS/Consultation Introduction to School Counseling and Consultation (4 credits)**
- **CNS6250 Advanced School Counseling Advanced School Counseling: Addictions, Crisis & Systems Advocacy (4 credits)**
- **CNS6400 Diagnosis/Case Conceptualiz'n Diagnosis and Case Conceptualization (4 credits)**

c. Capstone Courses (12 credits)

Required courses:

- **CNS6500 Mental Health Counseling Mental Health Counseling (4 credits)**
- **CNS6960 Counseling Practicum Counseling Practicum (4 credits)**
- **CNS6950 Internship in Counseling Internship in Counseling (4 credits)**
- Internship work is done at an appropriate school site. Michigan now has provisions for Preliminary Authorizations for Employment as a School Counselor (with a teaching certificate), which allows students to become employed after all coursework is completed except the internship and the elective. Preliminary Authorization for Employment expires after three years, at which time the master's must have been completed. With the above coursework, students with valid Michigan teaching certificates can be endorsed in Guidance and Counseling on their teaching certificate. A state exam is required.

Those who choose not to be teacher-certified must complete all 60 required credits of the Master of Arts in Counseling prior to receiving Oakland University's recommendation for the School Counseling Licensure.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the

academic program. In order to remain in good standing, a student must achieve a minimum GPA of at least B in every class and make satisfactory progress toward the degree.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In order to remain in good standing a student must maintain an overall GPA of at least 3.0, earn a B or above in each course and make satisfactory progress toward the degree. With one grade under B, a student is on academic probation, and their status will be reviewed by the faculty. No grade below C can be applied toward a degree and two grades below B or one below C will automatically lead to an evaluation of progress and possible dismissal.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Student Advising

Upon admission to the counseling program, students are assigned faculty advisers. It is expected that students will maintain contact with their adviser throughout their program. Open advising is also available. Contact the Department of Counseling for open advising hours.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser; on file by the completion of the first course, **CNS5050 Intro to Counseling and Ethics**; and submitted by the student to Oakland University Graduate School by the end of the student's first semester of graduate coursework. Sample plans of study are available at <http://www.oakland.edu/counseling/>.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Code of Ethics

Along with scholarship preparation, high levels of ethical conduct are considered essential for those who are involved in counseling adults and children. Students are expected to comply with the current Code of Ethics of the American Counseling Association. Violations will be brought before the faculty and could result in dismissal from the program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Counseling

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BIS, MA	Interdisciplinary Studies/ Counseling	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total

168

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

The Combined Bachelor of Interdisciplinary Studies, B.I.S./Counseling, M.A. is a program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were completed independently. Students in this program complete 12 graduate level credits at undergraduate tuition rates. Students who have a minimum overall undergraduate GPA of 3.2 and have earned a 3.0 or above GPA in each of the 12-credits of graduate courses will be reclassified as a graduate student through the Graduate School.

Requirements for the Interdisciplinary Studies, B.I.S./Counseling, M.A., Combined B.I.S./M.A.

1. Meet the university general education requirements:

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Each candidate for an Oakland University baccalaureate will need to satisfactorily complete approved courses in each of the following areas: Foundation, Exploration, Integration, Writing, U.S. Diversity and Capstone. For details, refer to the [General Education Requirements](#) section of the catalog.

2. Have an approved plan of study in the Interdisciplinary Studies, B.I.S., program that indicates pursuit of the combined degree program.

Eligible students will be able to substitute up to 12 credits of the following counseling courses into their Interdisciplinary Studies Program of Study:

- [CNS5050 Intro to Counseling and Ethics](#) Introduction to Counseling and Ethics (4 credits)
- [CNS5060 Diversity/Social Justice Issue](#) Diversity and Social Justice Issues (4 credits)
- [CNS5080 Theories/CNS/Psychotherapy](#) Theories of Counseling and Psychotherapy (4 credits)
- [CNS5090 Individual/Family Development](#) Individual and Family Development (4 credits)
- [CNS6010 Testing/Assessment in CNS](#) Testing and Assessment in Counseling (4 credits)

3. Apply for and receive delayed admission to the Counseling, M.A. program.

Applicants must submit all Graduate Application Requirements and the departmental requirement of two essays by the published application deadlines.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Clinical Mental Health Counseling

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MA	Clinical Mental Health Counseling	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Counseling

Credit Total

60

Delivery Method Required

in person

Summer Semesters
0

Requirements

Program Requirements

Department of Counseling

491B Pawley Hall ([map](#))

(248) 370-4179 • Fax (248) 370-4141

<http://www.oakland.edu/counseling/>

Coordinator:

James T. Hansen

450E Pawley Hall

(248) 370-3071

jthansen@oakland.edu

Program Description

The Master of Arts in Clinical Mental Health Counseling degree program is for individuals who wish to work in professional counseling roles with children, youth, adults, and families in community settings. The program can accommodate both full-time and part-time students.

Accreditation

The Master of Arts in Clinical Mental Health Counseling is an accredited program determined by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) and prepares students for Michigan counseling licensure.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received by Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- April 1 for fall semester

- October 1 for winter semester

- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate application requirements
2. **Additional department application requirements**
 - **Supplemental application form**
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Grade-point average of 3.0 in all undergraduate coursework is ordinarily considered the minimum standard for admission.
 - All applicants must submit two essays as part of the application requirements:

Essay one: Applicants explain reasons for entering the counseling program and employment goals. Applicants should describe experiences and accomplishments in working with children, youth and/or adults. Additionally, applicants must describe their strengths and areas for growth from their perspective as well as the perspective of others.

Essay two: Applicants are asked to recall constructive feedback from past instructors and supervisors and describe a time when they were given constructive feedback and how they responded to it. The Counselor Competency Statement must be used as a guide and is available on the link (<https://www.oakland.edu/counseling/>).

The essay's will be evaluated based on a) clarity of goals, b) whether or not the applicant's goals are congruent with our program, c) experience and accomplishments, d) awareness of strengths and areas for growth, e) ability to receive and accept feedback, and f) writing skills.

- **Requirements for recommendations**
Recommendations are important to the application procedure. The two required references must be from professionals, professors, or employers who can attest to the applicant's academic potential, readiness for graduate study, and interpersonal skills. All letters of recommendation will be rated on a case-by-case basis.

- Following a review of the above requirements, select students will be invited to an interview.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Admission to the Master of Arts in Clinical Mental Health Counseling degree program is selective; meeting minimum criteria does not guarantee acceptance into the program. In addition to graduate admission general requirements, applicants must also satisfy the admission requirements established by the academic program.

Degree Requirements

The Master of Arts in Clinical Mental Health Counseling degree is awarded upon satisfactory completion of 60 graduate-level credits in an approved program of study.

Course Requirements (60 credits)

a. Core Requirements (24 credits)

Required Courses:

- **CNS5050 Intro to Counseling and Ethics** Introduction to Counseling and Ethics (4 credits)
- **CNS5060 Diversity/Social Justice Issue** Diversity and Social Justice Issues (4 credits)
- **CNS5070 Clinical Counseling Skills** Clinical Counseling Skills (4 credits)
- (Required the first academic year in the program; CNS 5070 must be taken as a prerequisite or corequisite with CNS 6030.)
- **CNS5080 Theories/CNS/ Psychotherapy** Theories of Counseling and Psychotherapy (4 credits)
- **CNS5090 Individual/Family Development** Individual and Family Development (4 credits)
- **CNS6010 Testing/Assessment in CNS** Testing and Assessment in Counseling (4 credits)

b. Research and Clinical Requirements (20 credits)

Required courses:

- **CNS6020 Career Develop Theory/ Practice** Career Development Theory and Practice (4 credits)
- **CNS6000 Research in Counseling** Research in Counseling (4 credits)
- **CNS6030 Group Counseling** Group Counseling (4 credits)
- **CNS6400 Diagnosis/Case Conceptualiz'n** Diagnosis and Case Conceptualization (4 credits)
- **CNS6600 Addictions in Counseling** Addictions in Counseling (4 credits)

c. Electives (4 credits)

Elective course offerings change each semester. Students must review the department web site for elective offerings for the current semester (<http://www.oakland.edu/counseling>).

Note: A proposal for independent research in an area of special interest may be submitted for approval as an elective using **CNS6900 Spec Problems in Counseling**. The student must first obtain a written commitment from an interested faculty member to sponsor this work.

d. Capstone Courses (12 credits)

- **CNS6500 Mental Health Counseling** Mental Health Counseling (4 credits)
- **CNS6950 Internship in Counseling** Internship in Counseling (4 credits) *
- **CNS6950 Internship in Counseling** Counseling Practicum (4 credits)

* Internship is done at an approved mental health site.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. In order to remain in good standing, a student must achieve a minimum GPA of at least B in every class and make satisfactory progress toward the degree.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Department requirements: In order to remain in good standing a student must maintain an overall GPA of at least 3.0 and make satisfactory progress toward the degree. With one grade under B, a student is on academic probation, and their status will be reviewed by the faculty. No grade below C can be applied toward a degree and two grades below B or one below C will automatically lead to an evaluation of progress and possible dismissal.

Related Program Information

Plan of Study

Upon admission to the counseling program, students are assigned faculty advisers. All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser before the completion of **CNS5050 Intro to Counseling and Ethics** and submitted by the student to Oakland University Graduate School. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Student Advising

A sample program plan for the Master of Arts in Clinical Mental Health Counseling degree program is available on the department website (<http://www.oakland.edu/counseling>). It is expected that students will maintain contact with their adviser throughout their program. Open advising is also available. Students should contact the Department of Counseling for open advising hours.

Code of Ethics

Along with scholarship preparation, high levels of ethical conduct are considered essential for those who are involved in counseling adults and children. Students are expected to comply with the current Code of Ethics of the American Counseling Association. Violations will be brought before the faculty and could result in dismissal from the program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Clinical Mental Health Counseling

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BIS, MA	Interdisciplinary Studies/Clinical Mental Health Counseling	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total

168

Delivery Method

In Person

Required

Summer Semesters
0

Requirements

Program Requirements

The Combined Interdisciplinary Studies, B.I.S./Clinical Mental Health Counseling, M.A., is a program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the 2 degrees were completed independently. Students in this program complete 12 graduate level credits at undergraduate tuition rates. Students who have a minimum overall undergraduate GPA of 3.2 and have earned a 3.0 or above GPA in each of the 12-credits of graduate courses will be reclassified as a graduate student through the Graduate School.

Requirements for the Interdisciplinary Studies, B.I.S./Clinical Mental Health Counseling M.A., Combined B.I.S./M.A.

1. Meet the university General Education requirements:

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an Undergraduate Academic Adviser concerning the selection of all of their General Education courses.

Each candidate for an Oakland University baccalaureate will need to satisfactorily complete approved courses in each of the following areas: Foundation, Exploration, Integration, Writing, U.S. Diversity and Capstone. For details, refer to the [General Education Requirements](#) section of the catalog.

2. Have an approved plan of study in the Interdisciplinary Studies, B.I.S. program that indicates pursuit of the combined degree program.

Eligible students will be able to substitute up to 12 credits of the following counseling courses into their Interdisciplinary Studies Program of Study:

- [CNS5050 Intro to Counseling and Ethics](#) Introduction to Counseling and Ethics (4 credits)
- [CNS5060 Diversity/Social Justice Issue](#) Diversity and Social Justice Issues (4 credits)
- [CNS5080 Theories/CNS/Psychotherapy](#) Theories of Counseling and Psychotherapy (4 credits)
- [CNS5090 Individual/Family Development](#) Individual and Family Development (4 credits)
- [CNS6010 Testing/Assessment in CNS](#) Testing and Assessment in Counseling (4 credits)

3. Apply for and receive delayed admission to the Clinical Mental Health Counseling, M.A. program

Applicants must submit all Graduate Application Requirements and the departmental requirement of two essays by the published application deadlines.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MBA	Business Administration	Major

Program Type

Master

College/School

School of Business Administration (BA)

Department(s)

School of Business Admin

Credit Total

36

Delivery Method Required

Partially Online, Fully Online

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287 POM6430 Operations Planning & Control

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3287

trumbull@oakland.edu

Program Description

A program leading to the Master of Business Administration (MBA) with special emphasis in information technology and international business is offered by the School of Business Administration. It is designed to educate students for managerial roles in private, public, or not-for-profit sectors of the economy.

The MBA program is designed for undergraduate majors from any discipline, including business or management. It is preferred that students with an undergraduate degree in business or one of the functional areas of management have two years of work experience before entering the MBA program. A typical entering class may consist of undergraduate majors from engineering, the natural sciences, the social sciences, computer science, mathematics, business, health care, education and the humanities.

The program is based on the belief that an education in management should:

- Prepare students for careers involving problem identification, problem solving, decision making and leadership in any type of organization
- Emphasize the determination of goals and the effective utilization of scarce resources
- Help students understand and effectively interact with the emerging workplace issues of globalization and diversity
- Assist students in understanding the effects of, and successfully deal with, the changing social, legal, ethical and technological environments of the organization
- Stress understanding of human behavior and the organizational setting, for much of management relates to people - understanding them, communicating with them, working with them, and leading them
- Stress the importance of the management of information technology resources in the successful operation of an organization.

Students in the MBA program may choose to focus their elective work in one of the ten areas of concentration offered at Oakland University or select to choose from a variety of elective courses for more general study. Currently, the MBA program at Oakland University has areas of concentration in business analytics, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, production/operations management, and supply chain management.

Program Delivery

Evening and online courses combined with a wide selection of concentrations means students can easily customize the MBA program to meet their unique career goals.

Length of Program

The MBA degree is awarded upon satisfactory completion of 36 credits in an approved program of study.

Full-time students normally take 9 credits (three courses) in each of the fall and winter semesters and 6 credits (two courses) in the summer semester. The full-time student can finish the complete 36-credit program in less than two years.

Part-time students taking six courses per year can finish the complete 36-credit program in two and two-thirds calendar years (32 months) in a year-round program.

Satisfactory Progress

The MBA program must be completed within six years from the date of entry into the program. The scheduling of MBA classes is based on the assumption that students will be enrolled in a standard part-time program: six courses per year (two courses in each of the 15-week fall, winter and summer semesters).

In accordance with university regulations, all course credits used to meet requirements of the MBA program must be earned within six years of the date that the MBA is awarded.

Application Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

1. July 15 for fall semester
2. November 15 for winter semester
3. March 1 for summer semester

International Students

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

- Online Application for Admission to Graduate School
- Official transcripts providing evidence of an earned baccalaureate degree from an accredited U.S. institution, OR a degree equivalent to a four-year U.S. baccalaureate degree from a college or university of government-recognized standing.
 1. Official transcripts for all post-secondary educational institutions from which the applicant earned a degree (beginning with the first baccalaureate) and for all enrollment in graduate-level coursework beyond the bachelor's degree.
 - As part of the admission requirements, graduate programs may require official transcripts from post-secondary educational institutions from which the applicant earned an associate's degree and all enrollment in coursework both pre- and post-bachelor's degree.
- International university transcripts must be evaluated by a professional credential evaluation service. Oakland University will only accept transcript evaluations completed by a NACES (National Association of Credential Evaluation service) member organization. Many applicants use World Educational Services (WES) or Educational Credential Evaluators (ECE). NACES membership can be confirmed by visiting www.naces.org/members.htm. Graduate programs requiring more detailed information may require an applicant to submit a course-by-course (or

detailed) evaluation report rather than the general evaluation report. Official foreign transcripts will not be required by Oakland University since official transcripts must be submitted to and verified by the evaluation service. However, applicants must submit photocopies of their foreign transcripts with their application materials.

- Recommendations - during the completion of your application, you must provide two email addresses for individuals who will write your recommendations. You should contact these individuals prior to providing their email addresses. Your recommenders will receive an email from Oakland University Graduate School requesting that they submit their recommendation online.
- Proof of English language proficiency
- International supplemental application and supporting documentation must be submitted before international applicants can be issued the Certification of Eligibility (I-20). This certificate is required to apply for a student visa from the U.S. embassy or consulate.

1. **Additional Department application requirements**

- **Requirements for Recommendation:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- Curriculum Vitae or Resumé

GMAT Policy

The GMAT/GRE is **not** required if you meet any of the following criteria:

- Earned a master's degree or higher with a minimum overall GPA of 3.0 or has earned a 75th percentile score on the GRE, LSAT, or MCAT entrance exam
- Earned a bachelor's degree with an overall GPA of at least 3.0 from an AACSB-accredited business school
- Earned a bachelor's degree in any major with an overall GPA of at least 3.2 from a regionally accredited program
- Completed a business-related certification such as CPA, CFA, CFP or FRM
- Has at least 3 years of relevant professional work experience and an undergraduate overall GPA of at least 2.75
- Has completed at least 3 years of service in the US Armed Services

If an applicant does not meet any of the above criteria, it is recommended that they connect with the Graduate Business Programs Office to discuss GMAT preparation and other options to be considered for admission.

Admission Review and Assessment

Admission to the Master of Business Administration degree program is selective and depends on several elements, including scholarship and an ability to communicate effectively. In making admission recommendations, the admission committee assesses the potential of applicants for success in the MBA program by examining their undergraduate records, their GMAT or GRE scores, their work experience, and their recommendation forms.

Program Requirements

The Master of Business Administration degree is awarded upon satisfactory completion of 36 credits in an approved program of study.

The MBA program consists of 3 parts: the core program, electives, if necessary, due to course waivers, and, potential electives based on waiver of core courses and/or desired concentration. If core classes are waived, elective courses are required to get up to the 36-credit requirement.

Course Requirements

a. Core Requirements

- **ACC5110 Financial Accounting Financial Accounting (3 credits)**
- **ACC5120 Managerial Accounting Systems Managerial Accounting Systems (3 credits)**
- **ECN5210 Economics for Managers Economics for Managers (3 credits)**
- **FIN5330 Financial Management Financial Management (3 credits)**
- **MGT5260 International Business International Business (3 credits)**
- **MGT5500 Legal Environment of Business MGT 5500 - Legal Environment of Business (3 credits)**
- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**
- **MKT5600 Marketing Management Marketing Management (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **POM5210 Operations Management Operations Management (3 credits)**
- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers (3 credits)**

Core Course Exemptions

Students may be exempted from some of the core courses if the applicant passed an equivalent undergraduate course at a regionally accredited or equivalent school with a grade of B- or above within the

previous five years. Exemption from a core course will NOT reduce the total credit requirement for the MBA. The minimum for the degree is 36 credits.

Students exempted from a core course will be required to complete a graduate business elective. If the core course waived is **ACC5120 Managerial Accounting Systems**, **MIS5240 Enterprise Information Systems**, **MKT5600 Marketing Management**, **POM5210 Operations Management**, or **POM5210 Operations Management**, the graduate business elective must be in the **same** rubric. (For example, if you are waived from **FIN5330 Financial Management**, you will be required to complete an upper-level FIN course such as **FIN5720 Adv Financial Management**, **Advanced Financial Management** or **FIN5700 International Financial Mgt**, **International Financial Management**, etc). If you are waived from the core course **MGT5260 International Business**, you must complete a graduate business elective that includes international or global topics. Any course that fulfills the International Business Concentration will satisfy this requirement (see "Optional Concentrations").

Exemptions from core courses are determined by the Office of Graduate Business Programs after an evaluation of the student's transcript. A student will be allowed to take a core course from which he/she had been exempted only with prior written approval from the Office of Graduate Business Programs. Repeating waived courses may increase a student's MBA program beyond the minimum of 36 credits.

b. Electives

Students will be required to select graduate business electives if waived from core courses to satisfy the minimum 36 credit hour requirement. As noted in "core course exemptions" some electives may be in designated rubrics if waived from **ACC5120 Managerial Accounting Systems**, **MIS5240 Enterprise Information Systems**, **MKT5600 Marketing Management**, **POM5210 Operations Management**, **FIN5330 Financial Management**, and/or **MGT5260 International Business**. If you have three or more electives, you may earn a concentration. See "Optional Concentrations".

c. Optional Concentrations

An MBA student may earn a concentration along with their MBA by completing a structured set of electives from one of the MBA concentrations. Each concentration requires three elective courses (9 credit hours). Students who are waived from at least three core classes may be able to complete a concentration within the 36 credits. Students who are not waived from core classes may earn a concentration by taking three electives in addition to their 36 credit MBA program. A maximum of two concentrations can be noted on their transcripts. An elective course cannot count toward more than one concentration.

The courses offerings are made in a variety of modalities and students have access to the Director of Graduate Business Student Services for advising.

1. Business Analytics Concentration (9 credits)

Required courses:

- **MIS5460 Business Analytics Business Analytics (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**

Choose one of the following:

- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics (3 credits)**
- **MIS5500 Web Analytics Web Analytics (3 credits)**
- **MIS6060 Adv Databases/Big Data Mgt Advanced Databases and Big Data Management (3 credits)**
- **MKT5800 App Data Analytic MKT/Bus Stra Applied Data Analysis for Marketing & Business Strategy (3 credits)**
- **POM5410 Operations Analytics Operations Analytics (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**
- **QMM6400 Management Science Management Science (3 credits)**

2. Business Economics Concentration (9 credits)

Students are required to complete three electives from the following course offerings.

- **ECN5050 Econometrics Econometrics (3 credits)**
- **ECN5180 Seminar in Economic Policy Seminar in Economic Policy (3 credits)**
- **ECN5560 Public Finance Public Finance (3 credits)**
- **ECN5670 Economics of Health Care Economics of Health Care (3 credits)**
- **ECN6730 International Trade & Finance International Trade and Finance (3 credits)**
- **ECN6850 Economics of Industries Economics of Industries (3 credits)**
- **ECN6900 Special Topics in Economics Special Topics in Economics (3 credits)**
- **ECN6970 Independent Study/Economics Independent Study in Economics (1 to 3 credits)**
- **FIN5700 International Financial Mgt International Financial Management (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**

3. Entrepreneurship Concentration (9 credits)

To provide more background in the strategic aspects of entrepreneurship, startups and small businesses, the student would be required to complete the following program for a concentration in entrepreneurship:

- **MGT6560 Entrepreneurship Entrepreneurship (3 credits)**

Plus two electives from the following list:

- **ACC6250 Fed Income Taxation for Bus Federal Income Taxation for Business (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**
- **FIN5450 Real Estate Invest Analysis Real Estate Investment Analysis (3 credits)**
- **MGT6600 Launching/Managing Small Bus Launching and Managing Small Businesses (3 credits)**
- **MGT6700 Business Ethics Business Ethics (3 credits)**
- **MGT6902 Spec Topics: Entrepreneurship Special Topics in Entrepreneurship (3 credits)**
- **MGT6972 Ind Study in Entrepreneurship Independent Study in Entrepreneurship (3 credits)**
- **MKT5270 Marketing & Sustainability Mgt Marketing & Sustainability Management (3 credits)**
- **MKT5800 App Data Analytic MKT/Bus Stra Applied Data Analysis for Marketing & Business Strategy (3 credits)**
- **MKT6800 Strategic Marketing Strategic Marketing (3 credits)**
- **MKT6600 Entrepreneurial Marketing Entrepreneurial Marketing (3 credits)**
- **MKT6730 Product and Brand Management Product and Brand Management (3 credits)**
- **ORG6350 Decision Making in Orgs Decision Making in Organizations (3 credits)**
- **ORG6360 Leadership & Group Performance Leadership and Group Performance (3 credits)**
- **POM6400 Process Management Process Management (3 credits)**
- **POM6480 Project Management Project Management (3 credits)**

4. Finance Concentration (9 credits)

To provide more background in finance, the student would be required to complete three electives from the following list for a concentration in finance:

- **ACC6000 Financial Reporting & Analysis Financial Reporting and Analysis (3 credits)**
- **FIN5450 Real Estate Invest Analysis Real Estate Investment Analysis (3 credits)**

- **FIN5600 Investment Analysis** Investment Analysis (3 credits)
- **FIN5680 Financial Modeling** Financial Modeling (3 credits)
- **FIN5690 Financial Institutions Mgt** Financial Institutions Management (3 credits)
- **FIN5700 International Financial Mgt** International Financial Management (3 credits)
- **FIN5720 Adv Financial Management** Advanced Financial Management (3 credits)
- **FIN5760 Financial Data Analytics** Financial Data Analytics (3 credits)
- **FIN5840 Deep Learn/Neural NW in Fin** Deep Learning & Neural Networks in Finance (3 credits)
- **FIN6055 Portfolio Management** Portfolio Management (3 credits)
- **FIN6070 Fixed Income Analysis** Fixed Income Analysis (3 credits)
- **FIN6250 Derivatives & Risk Management** Derivatives and Risk Management (3 credits)
- **FIN6900 Special Topics in Finance** Special Topics in Finance (3 credits)
- **FIN6970 Independent Study/Finance** Independent Study in Finance (1 TO 3 credits)

5. Human Resources Management Concentration (9 credits)

To provide more background in human resources management and personnel, the student would be required to complete the following for a concentration in human resources management:

- **ORG6310 Strategic Human Resource Mgt** Strategic Human Resource Management (3 credits)

Plus two electives from the following list:

- **MGT5330 Leading DEI in Organizations** Leading Diversity, Equity and Inclusion in Organizations (3 credits)
- **MGT6380 Labor Management Relations** Labor-Management Relations (3 credits)
- **MGT6700 Business Ethics** Business Ethics (3 credits)
- **ORG6320 Change Management** Change Management (3 credits)
- **ORG6350 Decision Making in Orgs** Decision Making in Organizations (3 credits)
- **ORG6360 Leadership & Group Performance** Leadership and Group Performance (3 credits)
- **ORG6370 Motivation and Work Behavior** Motivation and Work Behavior (3 credits)
- **ORG6700 International Org Behav & HR** International Organizational Behavior and Human Resources (3 credits)

- **ORG6720 Creativity** Creativity (3 credits)
- **ORG6900 Special Topics: Org. Behavior** Special Topics in Organizational Behavior (3 credits)
- **ORG6970 Independent Study/Org Behavior** Independent Study in Organizational Behavior (1 TO 3 credits)

6. International Business Concentration (9 credits)

To provide more background in international business, the student would be required to complete three electives from the following list for a concentration in international business:

- **ACC6170 Int'l Fin Actg Standards & Rptg** International Financial Accounting Standards and Reporting (3 credits)
- **ECN6730 International Trade & Finance** International Trade and Finance (3 credits)
- **FIN5700 International Financial Mgt** International Financial Management (3 credits)
- **MGT5330 Leading DEI in Organizations** Leading Diversity, Equity and Inclusion in Organizations (3 credits)
- **MGT6901 Special Topics: Int'l Business** Special Topics in International Business (3 credits)
- **MGT6971 Independent Study: Int'l Bus** Independent Study in International Business (1 TO 3 credits)
- **MIS6300 Manag Gbl Srcg IT & IT En Svc** Managing Global Outsourcing of IT and IT Enabled Services (3 credits)
- **MIS6480 Issues: International IT** Issues in International Information Technology (3 credits)
- **MKT6500 International Marketing** International Marketing (3 credits)
- **MKT6730 Product and Brand Management** Product and Brand Management (3 credits)
- **MKT6750 Relations Global** Customer and Supplier Relationships in the Global Enterprise (3 credits)
- **ORG6700 International Org Behav & HR** International Organizational Behavior and Human Resources (3 credits)

7. Management Information Systems Concentration (9 credits)

To provide more background in MIS, the student would be required to complete three MIS electives for a concentration in management information systems.

- **MIS5170 Practical Cyber Security Funda** Practical Cyber Security Fundamentals (3 credits)
- **MIS5180 IS Risk Analys & Sec Cont Dev** IS Risk Analysis and Security Controls Development (3 credits)
- **MIS5460 Business Analytics** Business Analytics (3 credits)

- **MIS5470 Prac. Comp for Data Analytics** Practical Computing for Data Analytics (3 credits)
- **MIS5480 Adv Analytics with Python** Advanced Analytics with Python (3 credits)
- **MIS5500 Web Analytics** Web Analytics (3 credits)
- **MIS5560 Intro to Data Science** Introduction to Data Science (3 credits)
- **MIS5600 Deep Learning/Text Analytics** Deep Learning and Text Analytics (3 credits)
- **MIS5630 Intro to Networks** Introduction to Networks (3 credits)
- **MIS5640 Network and Security Mgmt** Network and Security Management (3 credits)
- **MIS5700 IS Security** IS Security (3 credits)
- **MIS5750 Mobile Sec & Secure App Dev** Mobile Security and Secure Application Development (3 credits)
- **MIS5800 Information Security Project** Information Security Project (3 credits)
- **MIS6060 Adv Databases/Big Data Mgt** Advanced Databases and Big Data Management (3 credits)
- **MIS6120 Info Security Legal Comp Ethic** Information Security Legal Compliance and Ethics (3 credits)
- **MIS6200 Electronic Commerce** Electronic Commerce (3 credits)
- **MIS6220 Business Object Development** Business Object Development (3 credits)
- **MIS6250 IT Planning and Strategy** IT Planning and Strategy (3 credits)
- **MIS6300 Manag Gbl Srcg IT & IT En Svc** Managing Global Outsourcing of IT and IT Enabled Services (3 credits)
- **MIS6410 IS Privacy** IS Privacy (3 credits)
- **MIS6430 Intell Property/Public Domain** Intellectual Property and the Public Domain in the Age of Remix (3 credits)
- **MIS6480 Issues: International IT** Issues in International Information Technology (3 credits)
- **MIS6900 Special Topics in MIS** Special Topics in Management Information Systems (3 credits)
- **MIS6970 Independent Study: MIS** Independent Study in Management Information Systems (1 to 3 credits)
- **POM5410 Operations Analytics** Operations Analytics (3 credits)

8. Marketing Concentration (9 credits)

To provide more background in marketing, the student would be required to complete three electives from the following list for a concentration in marketing:

- **MKT5270 Marketing & Sustainability Mgt** Marketing & Sustainability Management (3 credits)
- **MKT5800 App Data Analytic MKT/Bus Stra** Applied Data Analysis for Marketing & Business Strategy (3 credits)
- **MKT6040 Consumer Behavior** Consumer Behavior (3 credits)
- **MKT6050 Marketing Research** Marketing Research (3 credits)
- **MKT6080 Strategic Marketing** Strategic Marketing (3 credits)
- **MKT6200 Distribution Channels Mgt** Distribution Channels Management and Logistics (3 credits)
- **MKT6250 Supply Chain Logistics** Supply Chain Logistics (3 credits)
- **MKT6500 International Marketing** International Marketing (3 credits)
- **MKT6600 Entrepreneurial Marketing** Entrepreneurial Marketing (3 credits)
- **MKT6700 Business to Business Marketing** Business to Business Marketing (3 credits)
- **MKT6730 Product and Brand Management** Product and Brand Management (3 credits)
- **MKT6750 Relations Global Customer and Supplier** Relationships in the Global Enterprise (3 credits)
- **MKT6900 Special Topics: Marketing** Special Topics in Marketing (3 credits)
- **MKT6970 Independent Study in Marketing** Independent Study in Marketing (1 TO 3 credits)

9. Production/Operations Management Concentration (9 credits)

To provide more background in production and operations management, the student would be required to complete the following for a concentration in production/operations management:

- **POM6430 Operations Planning & Control** Operations Planning and Control (3 credits)

Plus two electives from the following list:

- **ACC6200 Cost Management** Cost Management (3 credits)
- **POM5410 Operations Analytics** Operations Analytics (3 credits)
- **POM6350 Management/Service Operations** Management of Service Operations (3 credits)
- **POM6400 Process Management** Process Management (3 credits)

- **POM6420 Supply Chain Management Supply Chain Management (3 credits)**
- **POM6450 Cases In Operations Mgt Cases in Operations Management (3 credits)**
- **POM6480 Project Management Project Management (3 credits)**
- **POM6900 Special Topics: POM Special Topics in Production and Operations Management (3 credits)**
- **POM6970 Independent Study: POM Independent Study in Production and Operations Management (1 TO 3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**

10. Supply Chain Management Concentration (9 credits)

To provide more background in supply chain management, the student would be required to complete three electives from the following list for a concentration in supply chain management. POM 6420 will be required for all students who do not have previous coursework in supply chain management.

- **MGT6420 Supply Chain Purchasing Supply Chain Purchasing (3 credits)**
- **MKT6200 Distribution Channels Mgt Distribution Channels Management and Logistics (3 credits)**
- **MKT6250 Supply Chain Logistics Supply Chain Logistics (3 credits)**
- **MKT6750 Relations Global Customer and Supplier Relationships in the Global Enterprise (3 credits)**
- **POM6400 Process Management Process Management (3 credits)**
- **POM6420 Supply Chain Management Supply Chain Management (3 credits)**

d. Exit (Integrative Business Policy Course)

Both of the integrative business policy courses, MGT 5350 and MGT 5360, draw on all the coursework in the core of the MBA program in the analysis of real world cases in a team setting. Either MGT 5350 or MGT 5360 is required of all MBA degree candidates.

- **MGT5350 Policy, Strategy & Goals Policy, Strategy and Goals (3 credits)**
- or
- **MGT5360 Policy, Strategy, Goals-Intn'l Policy, Strategy and Goals-International (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below 2.0 must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Educational Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MED	Educational Leadership	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
2

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Coordinator:

Robert A. Martin

480G Pawley Hall

(248) 370-2772

ramarti3@oakland.edu

Program Description

The Master of Education in Educational Leadership is a 13 month accelerated program designed to prepare building-level administrative leaders who are willing to grow and change - to transform - continually throughout their careers, while also seeking to stimulate and facilitate transformation within a school. Program graduates embrace the moral and ethical dimensions of leadership, adapt to the challenges and changes of a diverse society, and have the abilities to reflect, collaborate and think critically to provide the experience that allows teachers and students to respond effectively in the present and in the future. Graduates are eligible for the Michigan Building-Level Administrative (Principal) Certificate after successful passing of the state of Michigan's Administrative Certification Test.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

All applicants to this program are admitted for the fall semester only. The application deadlines are:

- August 15 for fall semester
- **International applicants:** May 1 for fall semester

A cohort begins in the fall term. The cohort is filled on a rolling basis to a maximum of 20 students.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from an individual in a supervisory relationship to the applicant
 - Goal statement
 - An undergraduate GPA of at least 3.0.
 - Communication skills commensurate with graduate-level scholarship.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Education in Educational Leadership degree is awarded upon satisfactory completion of the 32 credit approved program of study.

Course Requirements (32 credits)

Required courses:

- **EL5300 Intro to Educational Ldrshp** Introduction to Educational Leadership (4 credits)
- **EL5360 Schools, Students/Ed Equity** Schools, Students and Educational Equity (4 credits)
- **EL6300 Theories/Techniques of Ldrshp** Theories and Techniques of Leadership (4 credits)
- **EL6320 School Finance/Bus Admin** School Finance and Business Administration (4 credits)
- **EL5320 Staff/Curr Dev for Schl Impr** Staff and Curriculum Development for School Improvement (4 credits)

- **EL5340 Law for Teachers/Admin** Law for Teachers and Administrators (4 credits)
- **EL6955 Intern for School Leaders I** Internship for School Leaders I (2 credits)
- **EL6956 Intern for School Leaders II** Internship for School Leaders II (2 credits)
- **EL6960 Culm Master's Practicum in EL** Culminating Master's Practicum in Educational Leadership (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: No grade below 2.8 may be applied to the degree, and an overall GPA of 3.0 must be maintained. Students who are conditionally admitted to the program because of a lower GPA must complete a minimum of 8 credits (**EL5300 Intro to Educational Ldrshp**) and one other core class) with a grade of at least 3.2 in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. All students in the Master of Education in Educational Leadership are placed in a cohort and enrolled in sequential classes (see Course Requirements).

Master of Education in Educational Leadership majors must select either the traditional 22-month Main Campus format (Monday evenings) or the 13-month Macomb University Center (hybrid with first weekend of the month) format. This designation should be made before the fall start date.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. **A Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Higher Education Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MED	Higher Education Major Leadership	

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

32

Delivery Method Required

Fully Online

Summer Semesters
0

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Coordinator:

Thandi Sulé

480E Pawley Hall

(248) 370-4339

sule@oakland.edu

Program Description

The Master of Education in Higher Education Leadership degree program prepares students for leadership and administration in colleges and universities. Designed for individuals interested in entry to mid-level college administration, the program includes a core curriculum that introduces students to critical issues in higher education with an emphasis on social justice concerns. Students study both academic or student affairs leadership. A capstone/ internship will provide students with hands-on experience translating theory and research to practice in a college or university setting.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

On-Campus Fall Start Program

- December 15 (Early; Receive decision by early January)
- April 15 (Regular)

- June 15 (Late; if space permits)

On-Campus Winter Start Program (limited enrollment)

- November 15

International applicants

On-Campus Program

The on-campus cohort begins in the fall term, and it is recommended that you apply early. The cohort is filled to a maximum of approximately 20 students. A limited number of winter term applications will be considered. Students accepted for winter semester are expected to take a summer class during the first year.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from individuals in a supervisory or advisory relationship to the applicant who can address the applicant's potential to perform at the graduate education level.
 - Program-specific - **Personal goal statement**
 - (see specific questions for the Master of Education in Higher Education Leadership program)
 - An undergraduate GPA of at least 3.0
 - Resume

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department. Meeting minimal criteria does not guarantee acceptance into the program.

Degree Requirements

The Master of Education in higher education leadership is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements (32 credits)

a. Core Courses (12 credits)

Required courses:

- **EL6680 Intro to American Higher Ed** Introduction to American Higher Education (4 credits)
- **EL6681 Higher Ed & Ed Equity** Higher Education and Educational Equity (4 credits)
- **CNS6095 College Student Dev on Campus** College Student Development and the Campus Setting (4 credits)

b. Academic and Student Affairs Courses (12 credits)

Choose three courses from the following:

- **EL6683 Introduction to Student Affairs** Introduction to Student Affairs (4 credits)
- **EL6684 Intro to Academic Affairs** Introduction to Academic Affairs (4 credits)
- **EL6685 Higher ED Ldrship Inclusion** Leading Effective Organizations (4 credits)
- **CNS6085 Counsel/Advising College Stude** Counseling and Advising the College Student (4 credits)
- **CNS6095 College Student Dev on Campus** College Student Development and the Campus Setting (4 credits)
- **EL6900 Current Topics/Higher Ed** Current Topics in Higher Education (4 credits)

c. Elective (4 credits)

As approved by Adviser

- **EL6682 Crit Hst Perspectives High Ed** Critical Historical Perspectives in Higher Education (4 credits)

d. Exit (4 credits)

- **EL6950 Capstone Port and Internship** Capstone Internship in Higher Education (4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make

satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: No grade below a 3.0 may be applied to the degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Capstone Portfolio

At the completion of the capstone/internship, students will submit a portfolio documenting knowledge and skill acquisition.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Early Childhood Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MED	Early Childhood Education	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

36

Delivery Method Required

Fully Online

Summer Semesters

1

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<https://www.oakland.edu/hdcs/>

Coordinator:

Julie Ricks-Donnen

405D Pawley Hall

(248) 370-4168

ricksdon@oakland.edu

Program description

The program prepares professionals to work with children from birth through age eight in public and private schools and agency settings. It also provides training for the direction and evaluation of early childhood programs and the coordination of community resources for young children and families. The program combines theory with observation and participation in clinical, community, and school practicum settings.

The program emphasizes a broad interdisciplinary view of early childhood education and child development. Also emphasized are multicultural issues concerning young children and their families, and the need for educational programs that respect and respond to children's developmental variabilities and exceptionalities.

The Master's in Early Childhood is a totally online program with some synchronous classes.

Admission terms and application deadlines

Apply to the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review until they are complete.

- July 15 for fall semester
- November 15 for winter semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department application requirements.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Supplemental Program Form**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Goal statement which includes the reasons for application, the intended focus of graduate study, professional and career goals, and a description of experiences and accomplishments in working with children and their families.
 - To be admitted to the M.Ed in early childhood education degree program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0, but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.4 or above in each course within the first academic year.
 - Completion of a minimum of 24 credits at the undergraduate or graduate level in education, humanities, social sciences, health, or an appropriate related field (this requirement is carefully weighed by the department's faculty admissions committee).
 - Graduate courses taken prior to admission to the degree program may count toward the degree if completed within the six-year time limit allowed for the degree and have not satisfied requirements of another awarded degree.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records,

goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Degree requirements

The Master of Education in early childhood education degree is awarded upon satisfactory completion of a minimum of 36 credits in an approved program of study.

To fulfill the degree requirements, the student must complete the planned program of 36 credits with a GPA of 3.0 or higher within the six-year time period allowed for the degree.

Course requirements (36 credits)

Level I (24 credits)

Required courses:

- **EC6600 Theories Child Devel/Education Theories of Child Development and Education** (4 credits)
- **EC6601 Fam/Chld/Lrng Cultural Context Family, Child and Learning in Cultural Context** (4 credits)
- **EC6602 Applied Development Principles Applied Developmental Principles** (4 credits)
- **EC6603 Play and Mediation of Learning Adult-Child Interaction: Play and Mediation of Learning** (4 credits)
- **EC6604 Observe/Assess Yng Excep Child Observation and Assessment of the Young Child** (4 credits)
- **EC6605 Teacher as Child Advocate Teacher as Child Advocate and Adult Educator** (4 credits)

Level II (12 credits)

All courses in Level I must be completed before moving on to Level II.

Required courses:

- **EC6900 Special Problems in Ed: EC Special Problems in Education - Early Childhood** (2 to 8 credits)
- **EC6995 Research Proj: EC Phase 1 Research Project in Early Childhood Education Phase I** (4 credits)
- **EC6996 Research Project EC: Phase II Research Project in Early Childhood Education: Phase II** (4 credits)
- **EC6960 Practicum in Early Childhood Practicum in Early Childhood** (2 credits) *
- *Note: for students in the MEd.in Early Childhood with ZS endorsement, EC6960 is required for a total of 38 credits.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in

throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Early Childhood Education Endorsement (ZS)

Note: The ZS is being phased out by MDE: we will not accept any students into the ZS only after Fall 2024.

Endorsements generally refer to any content areas or specializations that are added to a teaching certificate following successful completion of a planned program for professional certification. Only those individuals who hold an elementary teaching certificate are eligible for an endorsement in early childhood education (ZS).

The rubric for the early childhood endorsement has been changed from ZA to ZS by the State of Michigan. The ZS endorsement program in early childhood education requires 26 credits and includes both coursework and practicum experience. The ZS offered at Oakland University has been approved by the Michigan Department of Education as meeting ZS requirements.

The Early Childhood endorsement (ZS) requires six courses in Level 1 of the M.Ed. plus a 2-credit state-mandated practicum ([EC 6960](#)). The students in the M.Ed. program may apply for the endorsement upon completion of Level 1 requirements, plus the practicum, and successful completion of the state competency exam. Students may also complete coursework and practicum for the ZS endorsement only independent of the master's degree.

Admission terms and application deadlines

Apply to the Office of Study and Lifelong Learning by the semester deadlines listed below. Applications will not be sent to departments for admission review until they are complete.

- July 15 for fall semester
- November 15 for winter semester

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department application requirements by the published application deadlines:

1. [Graduate Application Requirements](#)
2. **Additional department application requirements**
 - [Supplemental Application Form](#)
 - **Requirements for recommendations:**
The two recommendation forms must be from those who can attest to the applicant's potential for successful graduate study.
 - Copy of current (or most recent) teaching certificate
 - Goal statement, which includes the reason for application, the intended focus of graduate study, a description of professional experiences and accomplishments, and professional and career goals

Relationship to the Master of Education in Early Childhood Education

The endorsement is attained through completion of Level 1 courses, plus a 2-credit state-mandated practicum (EC 6960) and the ZS test. Only students who hold an elementary teaching certificate are eligible for the ZS endorsement.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Special Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MED	Special Education	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

43

Delivery Method

Fully Online

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Erica Ruegg

425F Pawley Hall

(248) 370-2894

ruegg@oakland.edu

Program Description

The Master of Education in Special Education is a degree focusing on 1) the broader concepts of exceptionality - learning, instruction, and development and 2) an in-depth preparation for one area of exceptionality. Exploration of theory and research and advanced application in instruction and assessment with selected populations are integrated throughout the program.

The Master of Education in Special Education degree is designed to provide students advanced training and expertise in a chosen area of concentration. The areas of concentration offered within the M.Ed. in special education degree program at Oakland University are:

- Applied Behavior Analysis
- Autism Spectrum Disorder
- Emotional Impairment
- Specific Learning Disability

Note: Applicants for the M.Ed. with a concentration in ABA should contact Dr. Michael Kranak (kranak@oakland.edu) for additional information.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester (All ASD and ABA programs are fall admit only; the M.Ed. and Certificates operate under a cohort model)
- November 15 for winter semester (EI and SLD programs only)
- March 15 for summer semester (EI and SLD programs only)
- **International applicants**

Admission Terms and Application Deadlines (ABA only)

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review. Applicant must complete an interview as part of the application process, which takes place in the winter semester PRIOR to the start of the fall semester for which the student is applying.

- April 15 for following year
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Supplemental Program Form**
 - **Recommendation for Graduate Admission Form**
One recommendation must be from individuals who can attest to the applicant's potential for successful graduate study.
 - Copy of current (or most recent) teaching certificate or verification of pending certificate is required for ASD concentration. All applicants can provide evidence of eligibility from the MOECS credential search. Applicants must upload this information to their application in place of the actual teaching certificate.
 - Teaching Certificate is NOT required for ABA concentration.
 - Teaching Certificate is NOT required for EI or SLD concentration, exit option B.

- Interview may be required for candidates under consideration, with a written response to one or more questions posed during the interview process.
- Goal statement, which includes the reason for application, the intended focus of graduate study, a description of professional experiences and accomplishments, and professional and career goals.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

To be admitted to the M.Ed. in Special Education degree program in full standing, the applicant must have an undergraduate cumulative grade point average (GPA) of 3.0 or above. Applicants with an undergraduate GPA less than 3.0 but with an appropriate academic background and strong letters of recommendation, may be considered for admission in limited standing. Students who qualify for this admission classification must complete a maximum of 12 credits of graduate coursework with a grade of 3.0 or above in each course within the first three academic terms from the time of initial enrollment.

Degree Requirements

The Master of Education in special education is awarded upon satisfactory completion of 44 credits in an approved program of study.

M.Ed. in Special Education with a concentration in applied behavior analysis

Course requirements (44 credits)

a. Core Requirements (8 credits)

- **SE6503 Stands/Practs/Research in SE Standards, Practices, and Research in Special Education** (4 credits)
- **SE6600 Quality of Life** Quality of Life (4 credits)

b. ABA Concentration (25 credits)

- **SE6569 Foundations of ABA** Foundations of ABA (3 Credits)
- **SE6570 Concepts and Principles of ABA** Concepts and Principles of ABA (3 credits)
- **SE6571 Behavioral Assessment** Behavioral Assessment (3 credits)
- **SE6572 Behavior Change Procedures** Behavior Change Procedures (4 credits)

- [SE6573 Research Methods](#) Research Methods (3 credits)
- [SE6574 Ethics](#) Ethics (3 credits)
- [SE6575 Personnel Sup and Mgmt](#) Personnel Supervision and Management (2 credits)
- [SE6576 Experimental Analysis Behavior](#) Experimental Analysis of Behavior (3 credits)

Cumilating Experience (10 credits)

- [SE6975 Exp Learning Project 1](#) Experiential Learning Project 1 (2 credits)
- [SE6976 Exp Learning Project 2](#) Experiential Learning Project 2 (2 credits)
- [SE6977 Exp Learning Project 3](#) Experiential Learning Project 3 (2 credits)
- [SE6978 Exp Learning Project 4](#) Experiential Learning Project 4 (4 credits)

M.Ed. in Special Education with a Concentration in Autism Spectrum Disorder

Foundation Requirements (up to 8 credits)

May be required depending on an applicant's background

Course Requirements (45 credits)

a. Core Requirements (17 credits)

- [SE6503 Stands/Practs/Research in SE](#) Standards, Practices, and Research in Special Education (4 credits)
- [SE6505 Community Engagement/Service](#) Community Engagement and Service (1 to 3 credits) Student must complete 3 credits for graduation. Student will work with their advisor to determine whether to take 1 credit the first semester, then 2 credits the second semester or all 3 credits at once. When registering for the course, select the credit number through drop down menu or it will default to 1 credit only. Student must complete 3 credits for graduation.
- [SE6600 Quality of Life](#) Quality of Life (4 credits)
- Elective(s) (6 credits) Must be approved by adviser.

b. ASD Concentration (28 credits)

- [SE6502 Legal Issues in Spec Educ](#) Legal Issues in Special Education (4 credits)
- [SE6524 Assessment in Special Educatn](#) Assessment in Special Education (4 credits)
- [SE6527 ASD: Educational Procedures](#) Educational Procedures for Students with Autism Spectrum Disorder (3 credits)

- [SE6559 Overview of ASD](#) Overview of Autism Spectrum Disorder (3 credits)
- [SE6578 ASD: Commun/Language Issues](#) Communication and Language Issues in Autism Spectrum Disorder (3 credits)
- [SE6579 ASD: Behavioral/Social Issues](#) Behavioral and Social Issues in Students with Autism Spectrum Disorder (3 credits)
- [SE6596 Collaboration/Consultation:ASD](#) Collaboration and Consultation: Autism Spectrum Disorder (3 credits)
- Student must select Exit Option A or Exit Option B.

Option A (5 credits)

- [SE6960 Practicum: ASD K-12](#) Practicum Field Experience: Autism Spectrum Disorder K-12 (5 credits)
- (Required for those seeking the state-approved teaching endorsement.)

Option B (5 credits)

- Elective (5 credits) Must be approved by adviser.

M.Ed. in Special Education with a Concentration in Emotional Impairment

Foundation Requirements (up to 8 credits)

May be required depending on an applicant's background.

Course Requirements (40 credits)

a. Core Requirements (20 credits)

- [SE6502 Legal Issues in Spec Educ](#) Legal Issues in Special Education (4 credits)
- [SE6503 Stands/Practs/Research in SE](#) Standards, Practices, and Research in Special Education (4 credits)
- [SE6518 Org Mgt of Instruct Behav/Env](#) Organization and Management of Instructional Behaviors and Environments (4 credits)
- [SE6524 Assessment in Special Educatn](#) Assessment in Special Education (4 credits)
- Elective (4 credits) Must be approved by adviser.

b. EI Concentration (20 credits)

The following are pedagogical requirements to complete prior to field experience:

- [SE6510 Students w/Behavior and/or EI](#) Students with Behavioral and/or Emotional Impairment (4 credits)
- [SE6517 Lang and Except Child & Youth](#) Language and Exceptional Children and Youth (4 credits)

- **SE6520 Ed Procedures for Students/EI Educational Procedures for Students with Emotional Impairment (4 credits)**
- **SE6620 Adv Intervention Resources/EI Advanced Interventions and Resources for Students with Emotional Impairment (4 credits)**
- Student must select either Exit Option A or Exit Option B.

Option A (4 credits)

- **SE6962 Practicum: EI (K-12) Practicum Field Experience: Emotional Impairment K-12 (4 credits)**
- (Required for those seeking the state-approved teaching endorsement.)

Option B (4 credits)

- Elective (4 credits) Must be approved by adviser.

M.Ed. in Special Education with a Concentration in Specific Learning Disability

Foundation Requirements (up to 8 credits)

May be required depending on an applicant's background

Course Requirements (40 credits)

a. Core Requirements (20 credits)

- **SE6502 Legal Issues in Spec Educ Legal Issues in Special Education (4 credits)**
- **SE6503 Stands/Practs/Research in SE Standards, Practices, and Research in Special Education (4 credits)**
- **SE6518 Org Mgt of Instruct Behav/Env Organization and Management of Instructional Behaviors and Environments (4 credits)**
- **SE6524 Assessment in Special Educatn Assessment in Special Education (4 credits)**
- Elective (4 credits) Must be approved by adviser

b. SLD Concentration (20 credits)

The following are pedagogical requirements to complete prior to field experience:

- **RDG5210 Inquiry-Based Literacy Instruc Inquiry-Based Literacy Instruction (4 credits)**
- **SE6517 Lang and Except Child & Youth Language and Exceptional Children and Youth (4 credits)**
- **SE6532 Intro/Specific Learning Disab Introduction to Specific Learning Disability (4 credits)**

- **SE6533 Adv Ed Proc/Students with SLD Advanced Educational Procedures for Students with a Specific Learning Disability (4 credits)**

- Student must select either Exit Option A or Exit Option B.

Option A (4 credits)

- **SE6961 Prac: Specif Lrning Disab K-12 Practicum Field Experience: Specific Learning Disability K-12 (4 credits)**
- (Required for those seeking the state-approved teaching endorsement.)

Option B (4 credits)

- Elective (4 credits) Must be approved by adviser.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to the Oakland University Graduate School Office.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

For Graduation and Commencement specifics that students must complete on time, click **Graduation and Commencement**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Public Health

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MPH	Public Health	Major

Program Type

Master

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

44

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd (map)

(248) 370-3562 • Fax (248) 364-8657

<https://www.oakland.edu/shs/public-and-environmental-wellness/master-of-public-health/>

Director:

Florence Dallo, Professor

dallo@oakland.edu

Program description

The Master of Public Health (MPH) program seeks to improve the health of individuals and communities by strengthening the foundational skills, core capacities, diversity, preparation and responsiveness of public health professionals. These public health professionals may be employed in a variety of settings including, but not limited to, international health organizations (e.g., World Health Organization, Doctors Without Borders), federal government agencies (e.g., Centers for Disease Control and Prevention, National Institutes of Health), state and local health departments (e.g., Michigan Department of Community Health and Oakland County Health Division), voluntary and philanthropic organizations (e.g., American Red Cross, Kaiser Permanente), corporations and worksite wellness sites, local hospitals and non-profit organizations (e.g., Migrant Health Promotion, Alternatives For Girls).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements
2. **Additional department application requirements**
 - Undergraduate overall grade point average of at least 3.0
 - Three recommendation forms are required by the program.
 - All three forms must be from faculty members, supervisors, or professional mentors and must include letters attached to the forms. The letters must be on letterhead, signed, and include a statement describing the referee's relationship to the applicant,
 - Personal statement of no more than 1000 words describing the applicant's reasons for seeking an MPH degree, related public health experiences, and long-term professional goals.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, personal statement, recommendation forms, prerequisite courses and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Master of Public Health program may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Degree Requirements

The Master of Public Health degree program is awarded upon satisfactory completion of 44 credits in an approved program of study.

Course Requirements (44 credits)

Required Core (21 credits)

Required courses:

- **PH5000 Foundations Hlth Behav/Hlth Ed Foundations of Health Behavior and Health Education (4 credits)**
- **PH5500 Introduction to Epidemiology Introduction to Epidemiology (4 credits)**
- **PH5600 Intro to Environmental Hlth Sc Introduction to Environmental Health Sciences (4 credits)**
- **PH5700 Health Policy and Management Health Policy and Management (4 credits)**
- **PH5980 Interprofessional Education Interprofessional Education (1 credit)**

Choose from the following:

- **PH5410 Biostatistical Method/Pub Heal Biostatistical Methods in Public Health (3 credits)**

AND

- **PH5411 Biostatistical Methods/PH Lab Biostatistical Methods in Public Health Laboratory (1 credit)**

OR

- **PH5450 Applied Biostats in PH Applied Biostatistics in Public Health (3 credits)**

AND

- **PH5451 Applied Biostats in PH Lab Applied Biostatistics in Public Health Laboratory (1 credit)**

Cross-cutting competency courses (8 credits)

Required courses:

- **PH5100 Principles/Comm-Based Part Res Principles of Community-Based Participatory Research (4 credits)**
- **PH5200 Planning/Imp/Eval/PH Interven Planning, Implementation, and Evaluation of Public Health Interventions (4 credits)**

Electives (8 credits)

Elective courses can be taken within Public Health or related disciplines. Students are encouraged to discuss these selections with their faculty advisers.

Choose 8 credits from the following:

- **CNS6070 Counseling for Wellness Counseling for Wellness (4 credits)**

- **COM5414 Health Com and Close Rel Health Communication and Close Relationships (4 credits)**
- **ENV5520 GIS Analys for Sustainability GIS and Spatial Statistics (3 Credits)**
- **EXS5810 Physical Activity Epidemiology Physical Activity Epidemiology (2 credits)**
- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics (3 credits)**
- **PA5200 Public Budgeting and Finance Public Budgeting and Finance (3 credits)**
- **PA5500 Non-Profit Orgnzttn & Mgt Nonprofit Organization and Management (3 credits)**
- **PH5250 Res Methods/Health Disciplines Research Methods in Health Disciplines (4 credits)**
- **PH5350 Environmental Justice Environmental Justice (4 credits)**
- **PH5550 Qualitative Research Methods Qualitative Research Methods (4 credits)**
- **PH5650 Social Determinants of Health Social Determinants of Health (4 credits)**
- **PH5750 Global Health & Social Issues Global Health and Social Issues (4 credits)**
- **PH5850 Pop Health, Policy, Care Population Health, Health Policy and Healthcare (4 credits)**
- **PH6150 Quant/Qual Research Methods Quantitative and Qualitative Research Methods (4 credits)**
- **PH6250 Mechnsm/Chronic Infect Disease Mechanisms of Chronic and Infectious Disease (4 credits)**
- **Other** - Selected departmental courses with focus on public health, with prior approval by Program Planning Committee (2-4 credits)

Exit (7 credits)

Required courses:

- **PH5996 Public Health Capstone Public Health Capstone (4 credits)**
- **PH6960 Public Health Practicum Public Health Practicum (3 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. *Department requirements:* An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the **time limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Public Health

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MPH	Public Health	Major

Program Type

Combined Program

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total

152

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

Accelerated Public Administration and Public Policy, Combined B.S./M.P.A

The Accelerated Public Administration and Public Policy, Combined B.S./M.P.A. option is designed for high achieving undergraduate students pursuing a bachelor's in public administration at Oakland University and wishing to complete a Master of Public Administration degree directly following. The accelerated combined B.S./M.P.A. allows students to take 4 graduate level courses, **PA5100 Foundations of Public Admin**, **PA5200 Public Budgeting and Finance** and **PA5300 Human Resources Mgmt Pub Sectr**, and one 5000-level PA elective (except **PA5030 Government and the Economy**), while still an undergraduate and pay undergraduate tuition rates. Within the **Public Administration and Public Policy** requirements **PA5100 Foundations of Public Admin** replaces **PS3305 Public Administration**. **PA5200 Public Budgeting and Finance** replaces **PS3320 Public Budgeting**, and **PA5300 Human Resources Mgmt Pub Sectr** replaces **PS3325 Public Sector Hum Resource Mgt**.

To be eligible for the Public Administration and Public Policy, Combined B.S./M.P.A. option, students must:

1. Have earned a minimum cumulative grade point average of 3.2 or higher and completed at least 6 classes of the undergraduate program major courses.
2. Apply for and receive delayed admission into the MPA program thereby allowing the substitution of graduate classes **PA5100 Foundations of Public Admin**, **PA5200 Public Budgeting and Finance**, **PA5300 Human Resources Mgmt Pub Sectr** in place of 3 undergraduate classes,

PS3305 Public Administration, **PS3320 Public Budgeting**, **PS3325 Public Sector Hum Resource Mgt**. **Note:**

Students must receive formal delayed admission into the program to be eligible to register for **PA5100 Foundations of Public Admin**, **PA5200 Public Budgeting and Finance**, and **PA5300 Human Resources Mgmt Pub Sectr**.

3. Maintain a minimum 3.0 cumulative grade point average to completion of the B.S. degree in Public Administration and Public Policy and gain formal admission into the M.P.A. program.

Students admitted to this accelerated program can graduate with an M.P.A. degree in five years. Students wishing to acquire a specialized concentration may need extra semesters to complete the concentration.

For more information or to apply to the B.S. to M.P.A. program, visit oakland.edu/mpa.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Music

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Music	Major

Program Type

Master

College/School

College of Arts and Sciences

Department(s)

Music, Theatre, & Dance

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Melissa Hoag, Ph.D.

Department Chair, Music

Professor of Music

Doris and Paul Travis Professor of Music

Music Theory Coordinator

hoag@oakland.edu

Program Description

The Master of Music degree offers a blend of core academic courses in music theory and history, as well as specialized concentrations in performance (piano, vocal, world percussion, and instrumental), pedagogy (piano and vocal), conducting (instrumental or choral), and music education.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University

Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Curriculum Vitae
 - Personal statement (500-750 words) indicating the applicant's purpose in pursuing graduate studies including career objectives
 - An example of a scholarly writing such as a research paper used for undergraduate work
 - **Requirements for Recommendations**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - One teaching video of excellent sound and visual quality (no longer than 15 minutes) that demonstrates most or all of the following:
 - Application of the teaching cycles: clear directives, instruction, and assessment
 - Varied pedagogical approaches / differentiation
 - Preferably, innovative and student-centered practices
 - High quality teacher musicianship (e.g. conducting, piano skills, vocal modeling, etc.)
 - Post application review, the OU SMTD Music Education faculty will contact you regarding an interview for admission into the program

Admission Review and Assessment

Admission to the Graduate School at Oakland University is selective. In making admission recommendations to the Master of Music degree, the department assesses the potential of applicants for success in the program by examining their undergraduate records

Degree Requirements

The Master of Music degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project. Students must select either the **Thesis Option** or **Practicum Option** during the first semester of study.

1. Core requirements (8 credits)

Students may not use courses required for their concentration to fulfill core requirements.

Required course:

- **MUS5300 Intro to Grad Study in Music Introduction to Graduate Study in Music (2 credits)**

Choose one Music History course from the following:

- **MUS5027 American Music American Music (2 credits)**
- **MUS5321 Sem Medieval/Renaissance Music Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS5322 Sem Baroque/Classical Music Seminar in Baroque and Classical Music (2 credits) ***
- **MUS5323 Seminar/Music 1800 to Present Seminar in Music from 1800 to Present (2 credits) ***
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.

Choose one Music Theory course from the following:

- **MUS5235 Analytical Tech in Tonal Music Analytical Techniques in Tonal Music (2 credits)**
- **MUS5236 Analysis of Post -1900 Music Analysis of post-1900 Music (2 credits)**

Choose one additional Music Theory or History course from the list above. (Note: MUS 5027, MUS 5236, and MUS 5235 may not be repeated. MUS 5321, 5322 and 5323 may be repeated for credit when the repeated course is on a different topic from the first taken.)

- **MUS5027 American Music American Music (2 credits)**
- **MUS5235 Analytical Tech in Tonal Music Analytical Techniques in Tonal Music (2 credits)**
- **MUS5236 Analysis of Post -1900 Music Analysis of post-1900 Music (2 credits)**
- **MUS5321 Sem Medieval/Renaissance Music Seminar in Medieval and Renaissance Music (2 credits)**
- **MUS5321 Sem Medieval/Renaissance Music Seminar in Baroque and Classical Music (2 credits)**
- **MUS5323 Seminar/Music 1800 to Present Seminar in Music from 1800 to Present (2 credits)**

Note: World Percussion students must take **MUS5325 Global Music Seminar** - Global Music Seminar.

b. Concentration requirements (22 credits)

Concentration in Instrumental Performance

- **MUA5000 Voice level Applied Instrument lessons (2 credits per 4 semesters) (8 credits)**
- **MUA5562 Instrumental Repertoire Instrumental Repertoire (2 credits)**
- **MUA5563 Instrumental Pedagogy Instrumental Pedagogy (2 credits)**

- **MUE 5000-level Ensembles (4 credits)**

* Instrumental performance majors must participate in (1) major ensemble every semester of major.

Choose 6 credits from the following:

- **MUA5564 Instrumental Performance Topic Instrumental Performance Topics (2 credits)**
- **MUS5582 Adv Instr Interp & Conducting Advanced Instrumental Interpretation and Conducting Techniques (2 credits)**
- **MUS5996 Independent Study Independent Study (1 to 4 credits)**
- **MUE 5000-level Chamber Music or Small Ensemble (1 credit)**

Concentration in Music Education

- **MUS5431 Hist & Phil of Music Education Historical and Philosophical Foundations of Music Education (2 credits)**
- **MUS5432 Psych Foundations of Music Psychological Foundations of Music Education (2 credits)**
- **MUS5434 K-12 Mus/Lrn Exceptionalities K-12 Music for Learners with Exceptionalities (2 credits)**
- **MUS5438 Issues-Music Ed-21st Century Issues in Music Education in the 21st Century (2 credits)**
- **MUS5439 Teach Learn Music 21st Cent Teaching and Learning Music in the 21st Century (2 credits)**
- **MUS6450 Research Methods/Music Ed Research Methods in Music Education (2 credits)**
- **MUS6445 Music Curric Design/Assessment Music Curriculum Design and Assessment (2 credits)**

Choose one course from the following:

- **MUS6441 Teachg/Understg/Elem/Gen/Music Teaching for Musical Understanding in Elementary / General Music (2 credits)**
- **MUS6443 Techg/Mus/Understg/Choral Teaching for Musical Understanding in Choral Music (2 credits)**
- **MUS6444 TMU in Instrumental Ensembles Teaching for Musical Understanding in Instrumental Ensembles (2 credits)**

Choose 6 credits from

- Any 5000-level MUS, MUA*, or MUE* course.
- *Auditions for MUA or MUE courses may be required.

Concentration in Vocal Performance

- **MUA 5000-level Applied Voice lessons - 8 credits (2 credits per semester; 4 semesters required)**
- **MUS5551 Vocal Pedagogy I Vocal Pedagogy I (2 credits)**
- **MUS5552 Vocal Pedagogy II Vocal Pedagogy II (2 credits)**

- MUS5561 Vocal Repertoire I Vocal Repertoire I (2 credits)
- MUS5562 Vocal Repertoire II Vocal Repertoire II (2 credits)
- MUS5111 Diction for Singers I Diction for Singers I (2 credits)
- MUS5112 Diction for Singers II Diction for Singers II (2 credits)
- MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)

Concentration in Piano Performance

- MUA 5000-level Applied Piano lessons - 8 credits (2 credits per semester; 4 semesters required)
- MUS5541 Piano Ped I:Beginner Method Bk Piano Pedagogy I: Beginner Method Books (2 credits)
- MUS5542 Piano Pedagogy II:Int. Rep. Piano Pedagogy II: Intermediate Repertoire (2 credits)
- MUS5555 Piano Repertoire I Piano Repertoire I (2 credits)
- MUS5556 Piano Repertoire II Piano Repertoire II (2 credits)
- MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)
- MUS/MUA Electives or MUS5996 Independent Study - Independent Study (additional performance study recommended) (4 credits)

Concentration in Vocal Pedagogy

- MUA 5000 level applied voice lessons - 8 credits (2 credits per semester; 4 semesters required)
- MUS5551 Vocal Pedagogy I Vocal Pedagogy I (2 credits)
- MUS5552 Vocal Pedagogy II Vocal Pedagogy II (2 credits)
- MUS5561 Vocal Repertoire I Vocal Repertoire I (2 credits)
- MUS5562 Vocal Repertoire II Vocal Repertoire II (2 credits)
- MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)
- MUS/MUA/MUE Electives (4 credits) or MUS5996 Independent Study - Independent Study

Concentration in Music Education

- MUS5431 Hist & Phil of Music Education Historical and Philosophical Foundations of Music Education (2 credits)
- MUS5432 Psych Foundations of Music Psychological Foundations of Music Education (2 credits)
- MUS5434 K-12 Mus/Lrn Exceptionalities K-12 Music for Learners with Exceptionalities (2 credits)

- MUS5438 Issues-Music Ed-21st Century Issues in Music Education in the 21st Century (2 credits)
- MUS5439 Teach Learn Music 21st Cent Teaching and Learning Music in the 21st Century (2 credits)
- MUS6450 Research Methods/Music Ed Research Methods in Music Education (2 credits)
- MUS6445 Music Curric Design/Assessment Music Curriculum Design and Assessment (2 credits)

Choose one course from the following:

- MUS6441 Teachg/Understg/Elem/Gen/Music Teaching for Musical Understanding in Elementary / General Music (2 credits)
- MUS6443 Techg/Mus/Understg/Choral Teaching for Musical Understanding in Choral Music (2 credits)
- MUS6444 TMU in Instrumental Ensembles Teaching for Musical Understanding in Instrumental Ensembles (2 credits)

Choose 6 credits from

- Any 5000-level MUS, MUA*, or MUE* course.
- *Auditions for MUA or MUE courses may be required.

Concentration in Vocal Performance

- MUA 5000-level Applied Voice lessons - 8 credits (2 credits per semester; 4 semesters required)
- MUS5551 Vocal Pedagogy I Vocal Pedagogy I (2 credits)
- MUS5552 Vocal Pedagogy II Vocal Pedagogy II (2 credits)
- MUS5561 Vocal Repertoire I Vocal Repertoire I (2 credits)
- MUS5562 Vocal Repertoire II Vocal Repertoire II (2 credits)
- MUS5111 Diction for Singers I Diction for Singers I (2 credits)
- MUS5112 Diction for Singers II Diction for Singers II (2 credits)
- MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)

Concentration in Piano Performance

- MUA 5000-level Applied Piano lessons - 8 credits (2 credits per semester; 4 semesters required)
- MUS5541 Piano Ped I:Beginner Method Bk Piano Pedagogy I: Beginner Method Books (2 credits)
- MUS5542 Piano Pedagogy II:Int. Rep. Piano Pedagogy II: Intermediate Repertoire (2 credits)
- MUS5555 Piano Repertoire I Piano Repertoire I (2 credits)

- **MUS5556 Piano Repertoire II Piano Repertoire II** (2 credits)
- **MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)**
- MUS/MUA Electives or **MUS5996 Independent Study** - Independent Study (additional performance study recommended) (4 credits)

Concentration in Vocal Pedagogy

- **MUA 5000-level applied voice lessons - 8 credits (2 credits per semester; 4 semesters required)**
- **MUS5551 Vocal Pedagogy I Vocal Pedagogy I** (2 credits)
- **MUS5552 Vocal Pedagogy II Vocal Pedagogy II** (2 credits)
- **MUS5561 Vocal Repertoire I Vocal Repertoire I** (2 credits)
- **MUS5562 Vocal Repertoire II Vocal Repertoire II** (2 credits)
- **MUE 5000-level Ensembles - 2 credits (1 credit per semester; 2 semesters required)**
- **MUS/MUA/MUE Electives** (4 credits) or **MUS5996 Independent Study** - Independent Study

Concentration in Piano Pedagogy

- **MUA 5000-level applied piano lessons - 8 credits (2 credits per semester; 4 semesters required)**
- **MUS5541 Piano Ped I: Beginner Method Bk Piano Pedagogy I: Beginner Method Books** (2 credits)
- **MUS5542 Piano Pedagogy II: Int. Rep. Piano Pedagogy II: Intermediate Repertoire** (2 credits)
- **MUS5543 Piano Pedagogy III: Baroque Cl Piano Pedagogy III: Baroque-Classical Advanced Repertoire** (2 credits)
- **MUS5544 Piano Pedagogy IV: Romantic Piano Pedagogy IV: Romantic and Contemporary Advanced Repertoire** (2 credits)
- **MUS5555 Piano Repertoire I Piano Repertoire I** (2 credits)
- **MUS5556 Piano Repertoire II Piano Repertoire II** (2 credits)
- **MUS/MUA - Elective** (2 credits)

Concentration in Instrumental Conducting

- **MUS5581 Adv Choral Interp & Conducting Advanced Choral Interpretation and Conducting Techniques** (2 credits)
- **MUS5582 Adv Instr Interp & Conducting Advanced Instrumental Interpretation and Conducting Techniques** (2 credits)

- **MUS 6020 Conducting Apprenticeship** (4 semesters) (8 credits)
- Literature Course: (**MUS5565 Survey/Study of Choral Lit**, **MUS5476 Lit for MS and HS Band**, or other as appropriate and advised) (2 credits)
- **MUS / MUA / MUE Electives** in related studies (orchestration, analysis, voice, diction, score study, applied music, ensembles, education methods, pedagogy) or **MUS5996 Independent Study** - Independent Study (8 credits)

Concentration in Choral Conducting

- **MUS5581 Adv Choral Interp & Conducting Advanced Choral Interpretation and Conducting Techniques** (2 credits)
- **MUS5582 Adv Instr Interp & Conducting Advanced Instrumental Interpretation and Conducting Techniques** (2 credits)
- **MUS 6020 - Conducting Apprenticeship** (4 semesters) (8 credits)
- **MUS / MUA / MUE Electives** in related studies (orchestration, analysis, voice, score study, applied music, ensembles, education methods, pedagogy) or **MUS5996 Independent Study** - Independent Study (8 credits)

Concentration in World Percussion Performance

- **MUA5075 World Percussion Applied Study** (3 semesters) (6 credits) (World Percussion in Banner).
- **MUS5435 Global Arts Study Abroad Global Arts Study Abroad** (2 credits)
- **MUS6404 World Percussion Pedagogy World Percussion Pedagogy** (2 credits)
- **MUE5042 Creative Jazz Ensemble** (Creative Jazz Ensemble), **MUE5045 African Ensemble** (African Ensemble), **MUE5046 Steel Band** (Steel Band) or **MUE5048 World Percussion Ensemble** (World Percussion Ensemble) (6 credits*)

* Students pursuing the concentration in World Percussion must participate in an ensemble every semester of major

Electives (additional performance study recommended) (6 credits)

c. Exit (2 credits)

- **MUA6996 Master's Recital - Master's Recital** (2 credits)

Oral Examination

After completion of the recital, the student will make a 10- to 15-minute presentation to the recital committee. This might include discussion of interpretation, editions chosen, historical aspects of the works chosen, and so on.

A satisfactory presentation of material reflective of a satisfactory recital constitutes passing the Oral Examination for the degree of Master of Music with a concentration in **Instrumental Performance, Vocal Performance, Piano Performance, Instrumental Conducting, Choral Conducting and World Percussion Performance**. Any student who does not pass this examination may retake the examination one semester later, upon approval of the student's adviser. Documentation of the passed Oral Examination will be placed in the student's file.

OR

- **MUS6996 Master's Project - Master's Project** (includes teaching practicum) (2 credits)

Required for the degree of Master of Music with a concentration in **Vocal Pedagogy and Piano Pedagogy**.

OR

MUS6998 Master's Thesis – Master's Thesis (2 credits)

For candidates for a Master of Music with a concentration in **music education (Thesis Option)**, the culminating project is a master's thesis. Students are urged to plan ahead for the culminating project. Obtain information about the expectations from your adviser early in the degree program. While working on the thesis, students are expected to enroll every fall and winter for a minimum of 1 credit until the thesis is completed.

OR

MUS6969 Practicum Analysis/Reflection– Practicum Analysis and Reflection (2 credits)

For candidates for a Master of Music with a concentration in **Music Education (Practicum Option)**, the culminating project is a practicum analysis and reflection portfolio. Students will learn more about this project when they enroll in MUS 6960.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected. Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

- | |
|--|
| <ul style="list-style-type: none"> • A minimum grade of B is required in all courses. • Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program. • In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a Petition to Repeat a Course form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a Petition for Course Waiver/Substitution. |
|--|

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Music Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Music Education	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-3048

ttian@oakland.edu

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Vocal Pedagogy, Master of Music

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Vocal Pedagogy, Master of Music	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Master of Music in vocal pedagogy is a 32-credit program for experienced singers, designed to enable them to explore approaches to teaching voice, to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate Application Requirements

2. Additional department application requirements

- Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
- Two years of music theory, one year of music history, and voice performance ability; OR background equivalent to these requirements
- Applicants must submit a written statement of professional goals.
- Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program. For vocal pedagogy, contact Professor John-Paul White (jpwhite@oakland.edu)
- **Requirements for recommendations:**
The two Recommendation for Graduate Admission forms from individuals in a supervisory relationship to the applicant.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in vocal pedagogy program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in vocal pedagogy degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirement.

- Required course:
- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**

- Choose one course from the following:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS 5322 - Seminar in Baroque and Classical Music (2 credits) ***
- **MUS 5323 - Seminar in Music from 1800 to Present (2 credits) ***
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
- Choose one course from the following:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the lists above.

b. Major requirements (22 credits)

- 5000-level Applied Study (4 semesters) **(8 credits)**
- **MUS 5551 - Vocal Pedagogy I (2 credits)**
- **MUS 5552 - Vocal Pedagogy II (2 credits)**
- **MUS 5561 - Vocal Repertoire I (2 credits)**
- **MUS 5562 - Vocal Repertoire II (2 credits)**
- 5000-level Ensembles (2 semesters) **(2 credits)**
- MUS/MUA/MUE Electives **(4 credits)** or **MUS 5996 - Independent Study**

c. Exit (2 credits)

- **MUS 6996 - Master's Project (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed).

Culminating project

For candidates for a Master of Music in vocal pedagogy, the culminating project is a written master's project which includes a teaching practicum.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Vocal Performance, Master of Music

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Vocal Performance, Master of Music	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Master of Music in vocal performance is a 32-credit program for highly experienced singers designed to enable them to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate Application Requirements

2. **Additional department application requirements**

- Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
- Two years of music theory, one year of music history, and vocal performance ability; OR background equivalent to these requirements
- Applicants must submit a written statement of professional goals.
- Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
For voice performance, contact Professor John-Paul White (jpwhite@oakland.edu)
- **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in vocal performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in vocal performance degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project.

Course requirements

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirements.

- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**
-

- Choose one *Music History Seminar* from:
- * **MUS 5027 - American Music (2 credits)**
- * **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits)**
- * **MUS 5322 - Seminar in Baroque and Classical Music (2 credits)**
- * **MUS 5323 - Seminar in Music from 1800 to Present (2 credits)**
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
- Choose one *Music Theory Seminar* from:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the list above.

b. Major requirements (22 credits)

- 5000-level Applied Study (4 semesters) **(8 credits)**
- **MUS 5551 - Vocal Pedagogy I (2 credits)**
- **MUS 5552 - Vocal Pedagogy II (2 credits)**
- **MUS 5561 - Vocal Repertoire I (2 credits)**
- **MUS 5562 - Vocal Repertoire II (2 credits)**
- 5000-level Ensembles (2 semesters)
- Electives or **MUS 5996 - Independent Study (additional performance study recommended) (4 credits)**

c. Exit

- **MUA 6996 - Master's Recital (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)

Culminating project

For candidates for a Master of Music in vocal performance, the culminating project is a master's recital.

Students are urged to plan ahead for the recital. Obtain information about the expectations from your adviser early in the degree program.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Piano Pedagogy

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Piano Pedagogy	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-3048

ttian@oakland.edu

Program description

The Master of Music in piano pedagogy is a 32-credit program for experienced pianists, designed to enable them to explore approaches to teaching piano, to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- [International applicants](#)

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department requirements by the published application deadlines:

1. Graduate Application Requirements

2. Additional department application requirements

- Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
- Two years of music theory, one year of music history, and piano performance ability, OR background equivalent to these requirements
- Applicants must submit a written statement of professional goals.
- Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program. For piano pedagogy, contact Professor Tian Tian (ttian@oakland.edu).
- Requirements for Recommendations:
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in piano pedagogy program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in piano pedagogy degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirements.

- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**
-

- Choose one *Music History Seminar* from:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS 5322 - Seminar in Baroque and Classical Music (2 credits) ***
- **MUS 5323 - Seminar in Music from 1800 to Present (2 credits) ***
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
-
- Choose one *Music Theory Seminar* from:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the list above.

b. Major requirements (22 credits)

- 5000-level Applied Study (4 semesters) **(8 credits)**
- **MUS 5541 - Piano Pedagogy I: Beginner Method Books (2 credits)**
- **MUS 5542 - Piano Pedagogy II: Intermediate Repertoire (2 credits)**
- **MUS 5543 - Piano Pedagogy III: Baroque-Classical Advanced Repertoire (2 credits)**
- **MUS 5544 - Piano Pedagogy IV: Romantic and Contemporary Advanced Repertoire (2 credits)**
- **MUS 5555 - Piano Repertoire I (2 credits)**
- **MUS 5556 - Piano Repertoire II (2 credits)**
- MUS/MUA - Elective (2 credits)

c. Exit (2 credits)

- **MUS 6996 - Master's Project** (includes teaching practicum) **(2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)

Culminating project

For candidates for a Master of Music in piano pedagogy, the culminating project is a written master's project which includes a teaching practicum.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [**Office of Financial Aid**](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a [**Petition to Repeat a Course**](#) form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a [**Petition for Course Waiver/Substitution**](#).

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [**Graduate Student Responsibility**](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [**Petition of Exception - OU Course Waiver/ Substitution**](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Piano Performance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Piano Performance	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-3048

ttian@oakland.edu

Program description

The Master of Music in piano performance is a 32-credit program for highly experienced pianists, designed to enable them to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
3. Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
4. Two years of music theory, one year of music history, and piano performance ability; OR background equivalent to these requirements
5. Applicants must submit a written statement of professional goals.
6. Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
For piano performance, contact Professor Tian Tian (ttian@oakland.edu).
7. Requirements for Recommendations
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in piano performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in piano performance degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirements.

- Required course:
- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**

- Choose one *Music History Seminar* from:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS 5322 - Seminar in Baroque and Classical Music (2 credits) ***
- **MUS 5323 - Seminar in Music from 1800 to Present (2 credits) ***
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
- Choose one *Music Theory Seminar* from:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the list above.

b. Major requirements (22 credits)

- 5000-level Applied Study (4 semesters) **(8 credits)**
- **MUS 5541 - Piano Pedagogy I: Beginner Method Books (2 credits)**
- **MUS 5542 - Piano Pedagogy II: Intermediate Repertoire (2 credits)**
- **MUS 5555 - Piano Repertoire I (2 credits)**
- **MUS 5556 - Piano Repertoire II (2 credits)**
- 5000-level Ensembles (2 semesters)
- **MUS/MUA Electives** or MUS 5996 - Independent Study (additional performance study recommended) **(4 credits)**

c. Exit (2 credits)

- **MUA 6996 - Master's Recital (2 credits) (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)

Culminating project

For candidates for a Master of Music in performance, the culminating project is a master's recital.

Students are urged to plan ahead for the recital. Obtain information about the expectations from your adviser early in the degree program.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)**Major Dependent Concentration Declaration**

Major Dependent Concentrations are not available for this program

Conducting**General**

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Conducting	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

in person

Summer Semesters

0

Requirements**Program Requirements**

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Master of Music in conducting is a 32-credit program designed to meet the needs of music teachers and other music professionals who are interested in developing high-level skills and understanding in instrumental and/or choral conducting.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign-educated applicants.
 - Two years of music theory, one year of music history, and performance ability on instrument or voice; OR background equivalent to these requirements
 - Applicants must submit a written statement of professional goals.
 - Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.
 - For choral conducting, contact Professor Michael Mitchell (mmitchel@oakland.edu).
 - For instrumental conducting, contact Professor Gregory Cunningham (cunninggh@oakland.edu).

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in conducting program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in conducting is awarded upon satisfactory completion of 32 credits in an approved program of study, successful completion of a culminating project, and successful performance on an oral examination.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill the core requirements.

Required course:

- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**
- Choose one course from the following:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS 5322 - Seminar in Baroque and Classical Music (2 credits) ***
- **MUS 5323 - Seminar in Music from 1800 to Present (2 credits) ***
 - * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
- Choose one course from the following:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the list above.

b. Major requirements (22 credits)

- **MUS 5581 - Advanced Choral Interpretation and Conducting Techniques (2 credits)**
- **MUS 5582 - Advanced Instrumental Interpretation and Conducting Techniques (2 credits)**
- **MUS 6020 - Conducting Apprenticeship (3 semesters) (6 credits)**
- MUS electives in related studies (orchestration, literature, analysis, voice, diction, score study) **(4 credits)**
- Literature course (**MUS 5565**, **MUS 5476** or other as appropriate) **(2 credits)**
- Electives or **MUS 5996 - Independent Study (3 semesters) (6 credits)**

c. Exit (2 credits)

- **MUA 6996 - Master's Recital (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)
- Oral examination

Culminating project

For candidates for a Master of Music in conducting, the culminating project is a master's recital.

Students are urged to plan ahead for the recital. Obtain information about the expectations from your adviser early in the degree program.

Oral examination

After completion of the recital, the student will be asked to make a 10- to 15-minute presentation to his or her recital committee. This might include discussion of interpretation, editions chosen, historical aspects of the works chosen, and so on.

A satisfactory presentation of material reflective of a satisfactory recital constitutes passing the Oral Examination for the degree of Master of Music. Any student who does not pass this examination may be offered the examination again one semester later, upon the approval of the student's adviser.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Instrumental Performance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	Instrumental Performance	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

310 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program description

The Master of Music in instrumental performance is a 32-credit program for highly experienced orchestral instrumentalists, designed to enable them to expand their knowledge of repertoire and technique, and to further their personal performance skills and musical understanding.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate Application Requirements

2. Additional department application requirements

3. Requirements for Recommendations:

Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

- Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
- Two years of music theory, one year of music history, and instrumental performance ability; OR background equivalent to these requirements
- Applicants must submit a written statement of professional goals.

- Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program.

For brass performance, contact Professor Kenneth Kroesche (kroesche@oakland.edu)

For percussion performance, contact Professor Justin Lamb (jlamb3@oakland.edu)

For wind or string performance, contact Professor Jeffrey Heisler (jaheisle@oakland.edu)

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in instrumental performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

For more information about admission or assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in instrumental performance degree is awarded upon satisfactory completion of 32 credits in an approved program of study, successful completion of a culminating project and successful performance on an oral examination.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirement.

- Required course:
- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**
- Choose one course from the following:
- **MUS 5027 - American Music (2 credits)**
- **MUS 5321 - Seminar in Medieval and Renaissance Music (2 credits) ***
- **MUS 5322 - Seminar in Baroque and Classical Music (2 credits) ***
- **MUS 5323 - Seminar in Music from 1800 to Present (2 credits) ***
- * MUS 5321, 5322 and 5323 may be repeated for credit when the repeated seminar is on a different topic from the first taken.
- Choose one course from the following:
- **MUS 5235 - Analytical Techniques in Tonal Music (2 credits)**
- **MUS 5236 - Analysis of post-1900 Music (2 credits)**
- **MUS 5237 - Theories of Rhythm and Meter (2 credits)**
- Choose one additional Music Theory or History Seminar from the list above.

b. Major requirements (16 credits)

- 5000-level Applied Study (4 semesters) (**8 credits**)
- **MUA 5562 - Instrumental Repertoire (2 credits)**
- **MUA 5563 - Instrumental Pedagogy (2 credits)**
- *5000-level Ensembles (4 credits)*
- *Instrumental performance majors must participate in (1) major ensemble every semester of major.

c. Electives (6 credits)

- Choose 6 credits from the following:
- **MUA 5564 - Instrumental Performance Topics (2 credits)**
- **MUS 5582 - Advanced Instrumental Interpretation and Conducting Techniques (2 credits)**

- **MUS 5996 - Independent Study (1 TO 4 credits)**
- MUE 5000-level Chamber Music or Small Ensemble (1 credit)

d. Exit (2 credits)

- **MUA 6996 - Master's Recital (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)
- Oral examination

Culminating project

For candidates for a Master of Music in instrumental performance, the culminating project is a master's recital.

Students are urged to plan ahead for the recital. Obtain information about the expectations from your adviser early in the degree program.

Oral examination

After completion of the recital, the student will be asked to make a 10- to 15-minute presentation to his or her recital committee. This might include discussion of interpretation, editions chosen, historical aspects of the works chosen, and so on.

A satisfactory presentation of material reflective of a satisfactory recital constitutes passing the Oral Examination for the degree of Master of Music. Any student who does not pass this examination may be offered the examination again one semester later, upon the approval of the student's adviser.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

World Percussion Performance, Master of Music

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MM	World Percussion Performance, Master of Music	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Music

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

School of Music, Theatre and Dance

207 Varner Hall ([map](#))

(248) 370-2030 • Fax (248) 370-2041

www.oakland.edu/mtd

Coordinator:

Tian Tian

416 Varner Hall

(248) 370-2048

ttian@oakland.edu

Program Description

The Master of Music in World Percussion Performance is a 32-credit program for experienced percussionists, designed to enable them to pursue their passion for global percussion through applied study, ensembles, study abroad, and pedagogy within diverse percussion traditions. This comprehensive, student-centered percussion program is focused on developing global musicianship and creativity through the pillars of technique, repertoire, critical listening, improvisation, composition, cultural grounding, mind-body wellness, and community engagement.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**

2. **Additional department application requirements**

- Applicants must have earned a baccalaureate degree in music from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
- Two years of music theory, one year of music history, and instrumental performance ability; OR background equivalent to these requirements
- Applicants must submit a written statement of professional goals.
- Applicants must schedule and perform a successful audition that shows an appropriate level of prior experience and potential for success in the program. Contact Professor Mark Stone (stone@oakland.edu).
- **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

A successful audition should demonstrate a high level of musicianship and creativity through performance on a diverse array of percussion.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Master of Music in World Percussion Performance program, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, audition, and any other admission requirement established by the academic program.

Admitted students complete a theory assessment before registering for any theory course. For more information about this assessment, contact Dr. Tian Tian, coordinator of the master's program, at ttian@oakland.edu.

Degree requirements

The Master of Music in world percussion performance degree is awarded upon satisfactory completion of 32 credits in an approved program of study and successful completion of a culminating project.

Course requirements (32 credits)

a. Core requirements (8 credits)

Students may not use courses required for their major to fulfill core requirement.

- Required course:
- **MUS 5300 - Introduction to Graduate Study in Music (2 credits)**
- Choose three courses from any graduate Music History or Music Theory seminars. **MUS 5321**, **MUS 5322**, **MUS 5323**, and **MUS 5325** may be repeated for credit when the repeated seminar is on a different topic from the first taken.

b. Major requirements (22 credits)

- **MUA 5075 - Applied Study (3 semesters) (6 credits)**
- **MUS 5435 - Global Arts Study Abroad (2 credits)**
- **MUS 6404 - World Percussion Pedagogy (2 credits)**
- **MUE 5042 (Creative Jazz Ensemble)**, **MUE 5045 (African Ensemble)**, **MUE 5046, (Steel Band)** or **MUE 5048 (World Percussion Ensemble) (6 credits*)**
* World percussion performance majors must participate in an ensemble every semester of major
- Electives (additional performance study recommended) (6 credits)

c. Exit requirement (2 credits)

- **MUA 6996 - Master's Recital (2 credits)**
- (Must enroll for 1 credit every fall/winter until completed.)

Culminating Project

For candidates for a Master of Music in world percussion performance, the culminating project is a master's recital.

Students are urged to plan ahead for the recital. Obtain information about the expectations from your adviser early in the degree program.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Because of the nature of graduate education, a high standard of work is expected.

- A minimum grade of B is required in all courses.
- Any student earning a grade below B will be placed on probationary status through a letter from the department indicating that earning a second grade below B in any course will result in dismissal from the program.
- In any course where a student earns a final grade lower than B, the student must seek approval to repeat the course by submitting a **Petition to Repeat a Course** form OR seek approval to substitute a different course, appropriate to the degree requirements, by submitting a **Petition for Course Waiver/Substitution**.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)**Major Dependent Concentration Declaration**

Major Dependent Concentrations are not available for this program

Organizational Leadership**General**

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MOL	Organizational Leadership	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

32

Delivery Method Required

Fully Online, Partially
Hyflex

**Summer
Semesters**

1

Requirements**Program Requirements****Department of Organizational Leadership**

475E Pawley Hall ([map](#))

(248) 370-4109 • Fax (248) 370-4095

www.oakland.edu/orgleadership

Coordinators:

Tom Giberson

495C Pawley Hall

(248) 370-2625

giberson@oakland.edu

Program Description

Graduates of the program will be able to lead and support organizational interventions and processes in team or group-based settings within an ethical framework that integrates diversity, inclusion, and social justice across a broad spectrum of industries and organizational contexts.

This program is intended to help frame students' experiences in order to facilitate lifelong leadership growth. Graduates of the program will be qualified to work in organizations as leaders committed to a lifelong practice of personal leadership development, as well as supporting organizational leaders in their process of development.

This program is an accelerated 12-month, 32-credit, three semester (including summer), cohort-based program offered in online and hybrid courses. On-campus courses are offered at Oakland University in Rochester, Michigan. Students are admitted on a full-time basis and must complete the program in four years.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Current Deadlines

- July 15 for fall semester
- **International applicants**
- The Master of Organizational Leadership Program does not admit students during the summer or winter semester

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - A formal statement detailing work and life experiences of preferably one year or longer that have led to the desire to pursue the Master of Organizational Leadership degree program. The statement must be between 1,000 and 1,500 words.
 - In addition to the two recommendations listed in Graduate Application Requirements, a third recommendation is required by the program.
 - All three forms must attest to the quality and scope of the applicant's academic and professional ability.
 - A minimum of one year of professional work experience post earning a bachelor's degree from a regionally accredited institution
 - Official transcripts for undergraduate and graduate coursework, showing a bachelor's degree from a regionally accredited institution with a cumulative grade-point average of 3.0 (B) or better.
 - The formal statement is evaluated on the basis of quality of writing, organization of ideas, clarity of expression, and compatibility with program goals.
 - An interview with the coordinator will be required of all prospective students.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic

department. The formal statement is evaluated on the basis of quality of writing, organization of ideas, clarity of expression, and compatibility with program goals.

Degree Requirements

The Master of Organizational Leadership degree is awarded upon satisfactory completion of 32 credits in the required sequence of courses.

Course Requirements (32 credits)

Required courses:

- **HRD6080 Org. Culture and Change Organizational Culture and Change (4 credits)**
- **HRD6090 Developing and Leading Teams Developing and Leading Teams (4 credits)**
- **HRD6100 Ldrship Theory and Dev Leadership Theory and Development (4 credits)**
- **HRD6140 Intro Human Diverse Inclusion Introduction to Human Diversity Inclusion and Social Justice Perspectives (4 credits)**
- **HRD6150 Leadership in a Global Context Leadership in a Global Context (4 credits)**
- **HRD6170 Motivation/Leadership in Orgs Motivation and Leadership in Organizations (4 credits)**
- **HRD6800 Leadership Sem & Prof Port Leadership Seminar and Professional Portfolio (4 credits)**
- **HRD6900 Current Trends Current Trends (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Completion of 32 approved credits with an overall grade-point average of B or better. Credit toward the degree will not be given for courses with grades under B.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved..2+3

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Public Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MPA	Public Administration	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

36

Delivery Method Required

Fully Online, Partially Online

Summer Semesters
0

Requirements

Program Requirements

Department of Political Science

418 Varner Hall

(248) 370-2352 • Fax (248) 370-4299

www.oakland.edu/mpa

MPA program director:

Douglas Carr

419 Varner Hall

(248) 370-2972

carr@oakland.edu

Director of internships:

Diane Hartmus

Program coordinator:

Jim Bilinski

(248) 370-4117

jrbilins@oakland.edu

Program Description

The Master of Public Administration (MPA) degree program at Oakland University provides a challenging education for individuals seeking professional careers and for those already employed in governmental or other public agencies. The need for professionals holding MPA degrees is recognized due to the complexity of agencies at the state and local levels and the continued concerns for responsive and effective public service at all levels. The MPA program offers a generalist foundation through a set of core courses that is bolstered with opportunities for specialization through its electives and the directed capstone project/internship option.

Accreditation

The Oakland University MPA program is accredited by the Network of Schools of Public Policy, Affairs, and Administration (NASPAA).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate application requirements
2. Additional department application requirements
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant
 - MPA essay (Instructions are downloadable from (<https://www.oakland.edu/mpa>.)
 - Applicants should have a cumulative GPA of 3.0 or greater in their undergraduate degree.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

The program welcomes students with a wide variety of undergraduate preparations. Applicants must meet the university's general requirements for admission to graduate studies. Limited standing admission status may be granted to students who need minor improvements to their records, subject to approval by Oakland University Graduate School. Detailed application information can be found at <https://www.oakland.edu/mpa>.

Undergraduate Preparation for the MPA

- Degrees in a wide variety of majors will prepare the student for admission, providing that the record includes the minimum cumulative GPA of 3.0.

- Students lacking in this area may be admitted to OU as a post-bachelor student for graduate prerequisites with the requirement that the deficiency be corrected by completing appropriate coursework. A departmental adviser will plan with the student an appropriate way of addressing the deficiency. Credits earned to meet these standards will not be counted toward the total credits needed for the degree.

Degree Requirements

The Master of Public Administration degree is awarded upon satisfactory completion of 36 credits in an approved program of study.

Course Requirements

a. Core Requirements (20 credits)

All M.P.A. students must take these seven courses:

- **PA5020 Intro Gov & Nonprofit Acctng** Introduction to Government and Nonprofit Accounting (2 credits)
- **PA5100 Foundations of Public Admin** Foundations of Public Administration (3 credits)
- **PA5200 Public Budgeting and Finance** Public Budgeting and Finance (3 credits)
- **PA5300 Human Resources Mgmt Pub Sectr** Human Resources Management for the Public Sector (3 credits)
- **PA6100 Quantitative Meth Public Adm** Quantitative Methods in Public Administration (3 credits)
- **PA6200 Pub Sector Info Systems Mgmt** Public Sector Information Systems Management (3 credits)
- **PA6300 Program and Policy Evaluation** Program and Policy Evaluation (3 credits)

b. Concentration or Electives (12 credits)

In addition to the 20 credits in the core curriculum, a student may take all 12 elective credits in one of five concentrations: court administration, health care administration, non-profit organization and management, local government management, or criminal justice leadership. Each concentration has one required "core" course which the student must complete. Students who pursue a concentration may need an additional semester to complete elective requirements. Students may also choose not to concentrate in one area, and may take 12 electives from among any the program offers.

1. Court Administration Concentration

Core for Concentration (3 credits)

- **PA5800 Court Administration** Court Administration (3 credits)

Electives (additional 9 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning PA 5060 - Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5110 Law & Public Policy Law and Public Policy (3 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5120 Law & Admin: Local Perspective Law and Administration: Local Perspectives (2 credits)
- PA5130 Law & Admin: State Perspective Law and Administration: State Perspectives (2 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)
- PA5310 Public Sector Empl Relat Public Sector Employee Relations (2 or 3 credits)
- PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)
- PA6800 Advanced Court Administration Advanced Court Administration (3 credits)

2. Criminal Justice Leadership Concentration

Core for concentration (3 credits)

- PA5700 Org/Mgt/Crimn'l Just Agencies Organization and Management of Criminal Justice Agencies (3 credits)

Electives (additional 9 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5110 Law & Public Policy Law and Public Policy (3 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)

- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)
- PA5310 Public Sector Empl Relat Public Sector Employee Relations (2 or 3 credits)
- PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)
- PA5800 Court Administration Court Administration (3 credits)
- PA6700 Law Enforcement Leadership Law Enforcement Leadership (3 credits)
- PA6710 Security Leadership Security Leadership (3 credits)
- PA6720 Corrections Leadership Corrections Leadership (3 credits)

3. Health Care Administration Concentration

Core for Concentration (3 credits)

- PA5600 Org/Admin Hlth/Med Prog Organization and Administration of Health and Medical Care Programs (3 credits)

Electives (additional 9 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)
- PA5310 Public Sector Empl Relat Public Sector Employee Relations (2 or 3 credits)
- PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)
- PA6600 Public Policy & Health Care Public Policy and Health Care (3 credits)
- PA6610 Hlth Plan: Policies & Process Health Planning: Policies and Processes (3 credits)

4. Local Government Management Concentration

Core for Concentration (3 credits)

- PA5400 Local Governmt Managemnt Local Government Management (3 credits)

Electives (additional 9 credits)

- PA5030 Government and the Economy Government and the Economy (4 credits)
- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5110 Law & Public Policy Law and Public Policy (3 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5120 Law & Admin: Local Perspective Law and Administration: Local Perspectives (2 credits)
- PA5130 Law & Admin:State Perspective Law and Administration: State Perspectives (2 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)
- PA5310 Public Sector EmPLY Rela Public Sector Employee Relations (2 or 3 credits)
- PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)
- PA6400 Econ Development Theory/Pract Economic Development Theory and Practice (3 credits)
- PA6410 Community Planning & Zoning Community Planning and Zoning (3 credits)
- PA6510 Grants:Politics/Administration Grants: Politics and Administration (2 or 3 credits)

5. Nonprofit Organization and Management Concentration

Core for Concentration (3 credits)

- PA5500 Non-Profit Orgnztn & Mgt Nonprofit Organization and Management (3 credits)

Electives (additional 9 credits)

- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)
- PA5210 Workshop in Budgetng Workshop in Budgeting (2 credits)
- PA5320 Current Issues Human Rsce Mgmt Current Issues in Public Sector Human Resources Management (2 or 3 credits)
- PA6400 Econ Development Theory/Pract Economic Development Theory and Practice (3 credits)
- PA6500 Fundraising & Philanthropy Fundraising and Philanthropy (3 credits)
- PA6510 Grants:Politics/Administration Grants: Politics and Administration (2 or 3 credits)

6. Electives Option

MPA students do not need to choose a concentration. Any 12 credits from the list below will serve toward degree completion.

- PA5030 Government and the Economy Government and the Economy (4 credits)
- PA5040 Intergovernmental Relations Intergovernmental Relations (3 credits)
- PA5050 Administrative Ethics Administrative Ethics (2 credits)
- PA5060 Strategic Planning Strategic Planning (3 credits)
- PA5070 Risk Management Risk Management (2 credits)
- PA5110 Law & Public Policy Law and Public Policy (3 credits)
- PA5111 Publ Serv Accountability & Law Public Service Accountability and the Law (3 credits)
- PA5120 Law & Admin: Local Perspective Law and Administration: Local Perspectives (2 credits)
- PA5130 Law & Admin:State Perspective Law and Administration: State Perspectives (2 credits)
- PA5140 Public Adm: Issues & Problems Public Administration: Issues and Problems (4 credits)
- PA5150 Contemporary Public Mgt Tech Contemporary Public Management Techniques (3 credits)

- **PA5160 Public Administration Workshop Public Administration Workshop (2 or 3 credits)**
- **PA5210 Workshop in Budgeting Workshop in Budgeting (2 credits)**
- **PA5310 Public Sector Employee Relations Public Sector Employee Relations (2 or 3 credits)**
- **PA5320 Current Issues Human Resources Management Current Issues in Public Sector Human Resources Management (2 or 3 credits)**
- **PA5400 Local Government Management Local Government Management (3 credits)**
- **PA5500 Non-Profit Organization and Management Nonprofit Organization and Management (3 credits)**
- **PA5600 Organization and Administration of Health and Medical Care Programs Org/Admin Hlth/Med Prog Organization and Administration of Health and Medical Care Programs (3 credits)**
- **PA5700 Organization and Management of Criminal Justice Agencies Org/Mgt/Crimn'l Just Agencies Organization and Management of Criminal Justice Agencies (3 credits)**
- **PA5800 Court Administration Court Administration (3 credits)**
- **PA6400 Economic Development Theory and Practice Econ Development Theory/Pract Economic Development Theory and Practice (3 credits)**
- **PA6410 Community Planning and Zoning Community Planning and Zoning (3 credits)**
- **PA6500 Fundraising and Philanthropy Fundraising and Philanthropy (3 credits)**
- **PA6510 Grants: Politics and Administration Grants: Politics and Administration (2 or 3 credits)**
- **PA6600 Public Policy and Health Care Public Policy and Health Care (3 credits)**
- **PA6610 Health Planning: Policies and Processes Hlth Plan: Policies & Process Health Planning: Policies and Processes (3 credits)**
- **PA6700 Law Enforcement Leadership Law Enforcement Leadership (3 credits)**
- **PA6710 Security Leadership Security Leadership (3 credits)**
- **PA6720 Corrections Leadership Corrections Leadership (3 credits)**
- **PA6800 Advanced Court Administration Advanced Court Administration (3 credits)**
- **PA6900 Special Topics in Public Administration Public Admin Special Topics in Public Administration (2 or 3 credits)**
- **PA6920 Directed Readings Directed Readings (2 or 3 credits)**

c. Exit (4 credits)

Students must complete either an internship or a master's project. A student who has not had significant public service experience may choose to do an internship; others will be expected to complete a project.

- **PA6950 Internship Internship (4 credits)**
- or
- **PA6996 Master's Project Master's Project (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: Although credit for completion of a course in the MPA. program will be given for grades of C or above, the minimum satisfactory grade for graduate work is B. A student's academic progress is monitored by the MPA program director. If a student receives a grade for any MPA course below C, an academic warning letter is sent to the student. With a second grade below a B, the student receives written notification that he or she is on academic probation. A student placed on probation may be required to meet new standards to remain in the MPA program. With a third grade below a B, the student is notified in writing that he or she is subject to dismissal pending a review of the student's entire record by the MPA director and the assistant dean of the Oakland University

Graduate School. Regardless of their standing, all MPA students are encouraged to consult with their individual instructors and the MPA program coordinator concerning their academic progress.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Public Administration and Public Policy

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MPA	Public Administration and Public Policy	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

143

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Accelerated Public Administration and Public Policy, Combined B.S./M.P.A

The Accelerated Public Administration and Public Policy, Combined B.S./M.P.A. option is designed for high achieving undergraduate students pursuing a bachelor's in public administration at Oakland University and wishing to complete a Master of Public Administration degree directly following. The accelerated combined B.S./M.P.A. allows students to take four graduate level courses, **PA5100 Foundations of Public Admin**, **PA5200 Public Budgeting and Finance** and **PA5300 Human Resources Mgmt Pub Sectr**, and 1 5000-level PA elective (except **PA5030 Government and the Economy**), while still an undergraduate and pay undergraduate tuition rates. Within the **Public Administration and Public Policy** requirements, **PA5100 Foundations of Public Admin** replaces **PS3305 Public Administration**, **PA5200 Public Budgeting and Finance** replaces **PS3320 Public Budgeting**, and **PA5300 Human Resources Mgmt Pub Sectr** replaces **PS3325 Public Sector Hum Resource Mgt**.

To be eligible for the Public Administration and Public Policy, Combined B.S./M.P.A. option, students must:

1. Have earned a minimum cumulative grade point average of 3.2 or higher and completed at least 6 classes of the undergraduate program major courses.
2. Apply for and receive delayed admission into the MPA program thereby allowing the substitution of graduate classes **PA5100 Foundations of Public Admin**, **PA5200**

Public Budgeting and Finance, PA5300 Human Resources Mgmt Pub Sectr in place of 3 undergraduate classes, **PS3305 Public Administration, PS3320 Public Budgeting, PS3325 Public Sector Hum Resource Mgt.** **Note:** Students must receive formal delayed admission into the program to be eligible to register for **PA5100 Foundations of Public Admin, PA5200 Public Budgeting and Finance,** and **PA5300 Human Resources Mgmt Pub Sectr.**

3. Maintain a minimum 3.0 cumulative grade point average to completion of the B.S. degree in Public Administration and Public Policy and gain formal admission into the M.P.A. program.

Students admitted to this accelerated program can graduate with an M.P.A. degree in 5 years. Students wishing to acquire a specialized concentration may need extra semesters to complete the concentration.

For more information or to apply to the B.S. to M.P.A. program, visit oakland.edu/mpa.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Physician Assistant Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MPAS	Physician Assistant Science	Major

Program Type

Master

College/School

School of Health Sciences (HS)

Department(s)

Clinical and Diagnostic Sci

Credit Total

100

Delivery Method Required

In Person

Summer

Semesters

2

Requirements

Program Requirements

Department of Clinical and Diagnostic Science

433 Meadow Brook Rd ([map](#))

Rochester, MI 48309-4452

248-364-8679

pasience@oakland.edu

Program Director

Carol Piesik, Associate Professor of Practice

cpiesik@oakland.edu

Program Description

Master of Physician Assistant Science (MPAS) is a professional graduate program in the Department of Clinical and Diagnostic Science, which prepares individuals for licensure and entry into the physician assistant profession. PAs diagnose illness, develop and manage treatment plans, prescribe medications, and often serve as a patient's principal healthcare provider. The PA profession is committed to improving healthcare access and quality.

Admission Winter 2026

The OU MPAS admissions cycle for 2025-2026 is now closed.

Applications submitted after September 1, 2025 will not be reviewed.

The application for the 2026-2027 cycle will open in April 2026.

The Master of Physician Assistant Science Program has been granted Provisional Accreditation from the ARC-PA.

Accreditation-Provisional is an accreditation status granted when the plans and resource allocation, if fully implemented as planned, of a proposed program that has not yet enrolled students appear to

demonstrate the program's ability to meet the ARC-PA Standards or when a program holding Accreditation-Provisional status appears to demonstrate continued progress in complying with the Standards as it prepares for the graduation of the first class (cohort) of students.

Accreditation-Provisional does not ensure any subsequent accreditation status. It is limited to no more than five years from matriculation of the first class.

The program's accreditation history can be viewed on the ARC-PA website at <https://www.arc-pa.org/accreditation-history-oakland-university/>.

Course Requirements (100 credits)

a. Core Requirements (60 credits)

Didactic Courses - 4 semesters, 60 credit hours

Semester 1 (15 credits)

- **PAS5010 Anatomical Science** Anatomical Science (5 credits)
- **PAS5020 Foundation in Medical Sci** Foundations in Medical Science (4 credits)
- **PAS5040 Psychosocial Factors in Med** Psychosocial Factors in Medicine (2 credits)
- **PAS5050 Public Health Science** Public Health Science (2 credits)
- **PAS5060 PA Professional Practice** Physician Assistant Professional Practice (2 credits)

Semester 2 (15 credits)

- **PAS5110 Clinical Med Sci and Reason I** Clinical Medical Science and Reasoning I (5 credits)
- **PAS5120 Pharmacology I** Pharmacology I (2 credits)
- **PAS5130 Patient Assess Lifespan I** Patient Assessment Across the Lifespan I (4 credits)
- **PAS5140 Diagnostic Sciences I** Diagnostic Sciences I (2 credits)
- **PAS5150 Ethics and Evidence Based Med** Ethics and Evidence Based Medicine (2 credits)

Semester 3 (15 credits)

- **PAS5210 Clinical Med Sci and Reason II** Clinical Medical Science and Reasoning II (5 credits)
- **PAS5220 Pharmacology II** Pharmacology II (2 credits)
- **PAS5230 Patient Assess Lifespan II** Patient Assessment Across the Lifespan II (4 credits)
- **PAS5240 Diagnostic Sciences II** Diagnostic Sciences II (2 credits)
- **PAS5250 Trends in Medicine & Wellness** Trends in Medicine and Wellness (2 credits)

Semester 4 (15 credits)

- **PAS5310 Clin Med Reasoning and Sci III** Clinical Medical Science and Reasoning III (5 credits)
- **PAS5320 Pharmacology III** Pharmacology III (2 credits)
- **PAS5330 Patient Assess Lifespan III** Patient Assessment Across the Lifespan III (4 credits)
- **PAS5340 Diagnostic Sciences III** Diagnostic Sciences III (2 credits)
- **PAS5360 Infectious Disease Principles** Infectious Disease Principles (2 credits)

b. Clinical Requirements (40 credits)

Clinical Courses - 3 semesters, 1 year, 40 credit hours

- **PAS6100 Family Med Clinical Practicum** Clinical Practicum I (12 credits)
- **PAS6900 PA Science Capstone I** PA Science Capstone I (1 credit)
- **PAS6200 ER Medicine Clinical Practicum** Clinical Practicum II (16 credits)
- **PAS6910 PA Science Capstone II** PA Science Capstone II (1 credit)
- **PAS6300 Internal Med Clinical Practicu** Clinical Practicum III (8 credits)
- **PAS6920 PA Science Capstone III** PA Science Capstone III (2 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship

- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biology

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Biology	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Biological Sciences

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Biological Sciences

375 Dodge Hall ([map](#))

(248) 370-3550 • Fax (248) 370-4225

www.oakland.edu/biology

Program Coordinator:

Sara Blumer-Schuette

biogradprograms@oakland.edu

Program Description

The C is a thesis master's program. This program has a significant research component which provides advanced training to students seeking employment in biological disciplines or entrance into Ph.D. programs.

The graduate program affords students the opportunity to interact closely with the biology faculty as they complete their thesis work. For an overview of research opportunities in Biological Sciences, visit the faculty research web page (<https://www.oakland.edu/biology/research>).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Review of applications will begin on the following dates:

- March 1 for fall and summer semesters
- September 1 for winter semester
- **International applicants:** September 1 for winter semester, and January 1 for fall and summer semester.

Applications for fall semester that are received after the program due date, but before university deadlines, may be reviewed, subject to space availability.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants should have earned a bachelor's degree in biology or related subject (e.g., biomedical sciences, health sciences, biochemistry, molecular biology, botany or zoology) from a regionally accredited institution or proof of a U.S. equivalent degree for internationally educated applicants.
 - Applicants with an earned bachelor's degree in another discipline must have completed 5 lecture courses in biology, 2 lecture courses in college-level mathematics, 1 lecture course in physics and 3 lecture courses in chemistry. Applicants with undergraduate prerequisite course deficiencies in these areas must complete the preparatory course work before being admitted to the program.
 - Applicants should have a minimum cumulative GPA of 3.0.
 - An essay (goal statement) describing their interest in the program, expectations of what graduate study entails, and career goals.

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and evidence of the capacity for graduate study may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a specified number of graduate credits, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Transfer Credits

Official transcripts must be on file in Oakland University Graduate School. The credits earned must be from a regionally accredited institution and must carry a grade of 3.0 (B) or better. Courses graded Pass/Fail or Credit/Non-Credit are not transferable. Credit must be earned within six years of the time the degree will be conferred and may not have been used toward another degree. Only courses labeled "graduate" (numbered 5000 and above) may be transferred. The total number of credits transferred may not exceed 9, and no more than 1 credit will be awarded per week of instruction (i.e., a 4-credit course must meet a minimum of 14 hours per week for four weeks—a minimum total of 56 class hours or 47 clock hours of instruction).

Degree Requirements

The Master of Science in Biology degree is awarded upon satisfactory completion of 32 credits in an approved program of study, and completion of the written thesis requirement.

Course Requirements

a. General Requirements

Four 5000-level courses in Biology (3 or 4 credits each, excluding **BIO5101 Gross Anatomical Dissect**, **BIO5600 Adv Physiology/Pathophysio I** and **BIO5602 Adv Physiology/Pathophysio II**) chosen by the students and their research mentor and approved by the Department of Biological Sciences.

- **BIO6995 Graduate Research Graduate Research** (at least 8 credits)
- Electives (0-11 credits) - a combination of **BIO6995 Graduate Research** and/or graduate-level courses
- **BIO6998 Thesis Seminar Thesis Seminar** (1 credit)

b. Exit

The student must obtain approval of the written thesis by their thesis committee prior to the deadline for submission of approved thesis set by the Graduate School.

Thesis Requirements

a. Thesis Committee and Proposal

During the first semester of studies, the candidate must choose a thesis adviser with whom he or she will plan and conduct the thesis research. The adviser and candidate will then select a thesis committee. The student, with guidance from their mentor, will prepare a thesis proposal which must be completed and approved by the thesis committee before the end of the student's second semester. Students may not enroll in **BIO6998 Thesis Seminar**, Thesis Seminar, until their thesis proposal has been completed and approved by their thesis committee.

b. Thesis

When completed, the written thesis must also be approved by the thesis committee before it can be submitted to the Graduate School for approval. All theses must conform to university standards (see **Thesis and Dissertation**).

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to the Oakland University Graduate School by the Biological Sciences Graduate Advisor.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Chemistry

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Chemistry	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Chemistry

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Chemistry

260 Mathematics and Science Center ([map](#))

(248) 370-2320 • Fax (248) 370-2321

www2.oakland.edu/chemistry/

Graduate Coordinator:

Ziming Yang

289 Mathematics and Science Center

(248) 370-2339

zimingyang@oakland.edu

Program Description

The Master of Science in Chemistry can be viewed as either a terminal or non-terminal degree. By itself it serves as preparation for employment in chemical and related industries, a wide range of government agencies, and two-year college teaching. It also prepares the student for further study toward advanced degrees in chemistry, pharmacology, toxicology, oceanography, medicine, environmental science, and related fields. The program may be adapted to both full-time and part-time students.

The Master of Science in Chemistry is offered in both thesis and non-thesis plans. The thesis plan, which includes a significant laboratory or theoretical research component, is particularly valuable for persons planning to pursue a future Ph.D. degree or for those preparing for, or engaged in, industrial laboratory employment. The non-thesis option is designed for those students who either cannot schedule or do not need the thesis research component, and offers opportunity for extended study of advanced chemistry for persons currently employed in industry or teaching professions, or for those who wish a more rigorous technical background ancillary to professional employment in business, law, or medicine.

With appropriate course selection, the Master of Science candidate can focus his/her graduate work in a traditional area of chemistry (analytical, biochemistry, inorganic, organic or physical) or in an interdisciplinary area such as environmental chemistry, chemical education, polymer chemistry or toxicology.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. [Additional department application requirements](#)
 - Requirements for Recommendations
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants must have earned a bachelor's degree with a strong academic background in chemistry. Relevant background in mathematics, physics, or biochemistry is desired.
 - Applicants with degrees over five years old may also need to complete additional coursework. Applicants with undergraduate prerequisite course deficiencies must complete the preparatory course work before being eligible for admission to the graduate program.
 - Applicants should have a minimum cumulative GPA of 3.0.

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 16 credits of graduate-level work, with a GPA of 3.0 or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records,

goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in Chemistry degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements (32 credits)

a. Core Requirements (12 credits)

All students must take at least one lecture course in each of four different areas chosen from:

Biochemistry

- **CHM5530 Advanced Biochemistry** Advanced Biochemistry (3 credits)
- **CHM5902 Topics in Biochemistry** Topics in Biochemistry (3 credits)
- **CHM5550 Signal Transduction** Signal Transduction (3 credits)
- **CHM5810 Biochemical Toxicology** Biochemical Toxicology (3 credits)

*or other approved course

Inorganic Chemistry

- **CHM5630 Advanced Inorganic Chemistry** Advanced Inorganic Chemistry (3 credits)
- **CHM5903 Topics in Inorganic Chemistry** Topics in Inorganic Chemistry (3 credits)
- **CHM5650 Bioinorganic Chemistry** Bioinorganic Chemistry (3 credits)

* or other approved course

Organic Chemistry

- **CHM5340 Advanced Organic Chemistry** Advanced Organic Chemistry (3 credits)
- **CHM5901 Topics in Organic Chemistry** Topics in Organic Chemistry (3 credits)
- **CHM5390 Applied Organic Spectroscopy** Applied Organic Spectroscopy (3 credits)

* or other approved course

Physical Chemistry

- **CHM5400 Symmetry In Chemistry** Symmetry in Chemistry (3 credits)

- **CHM5410 Advanced Physical Chemistry** Advanced Physical Chemistry (3 credits)
- **CHM5420 Topics in Physical Chemistry** Topics in Physical Chemistry (3 credits)
- **CHM5440 Computational Chemistry** Computational Chemistry (3 credits)

* or other approved course

Polymer/Industrial Chemistry

- **CHM5730 Fundamentals of Materials Chem** Fundamentals of Materials Chemistry (3 credits)
- **CHM 5740 - Polymer Science and Technology** (3 credits)

* or other approved course

Analytical Chemistry

- **CHM5210 Advanced Analytical Chemistry** Advanced Analytical Chemistry (3 credits)
- **CHM5900 Topics in Analytical Chemistry** Topics in Analytical Chemistry (3 credits)
- **CHM5230 Chemical Separations** Chemical Separations (3 credits)

* or other approved course

Environmental Science

- **ENV5850 Environmental Fate & Transport** Environmental Fate and Transport (3 credits)
- **ENV5860 Toxic Substance Control** Toxic Substance Control (3 credits)
- **ENV5650 Organic Geochemistry** Organic Geochemistry (3 credits)
- **ENV5520 GIS Analys for Sustainability** GIS and Spatial Statistics (3 Credits)
- **ENV5900 Topics in Environmental Scienc** Special Topics in Environmental Science (2 to 4 credits)

* or other approved course

b. Electives (12 credits)

Additional chemistry graduate courses must be selected by student to complete 32-credit requirement. Up to 8 credits may be outside of chemistry with adviser approval.

c. Exit (8 credits)

Degree candidates must choose the thesis or non-thesis exit plan.

Thesis Plan

- **CHM6995 Graduate Research Graduate Research (1 to 8 credits)**
- The candidate for the thesis plan Master of Science in Chemistry must complete 32 credits in courses carrying graduate credit, of which 24 credits must be in chemistry.

Non-thesis Plan

For students interested in a research experience, 8 credits of CHM 6994 and/or CHM 6996 may be included in the program by arrangement with an individual faculty researcher.

- **CHM6994 Grad Research for Non-Thesis Graduate Research for Non-Thesis (1 to 6 credits)**
and/or
- **CHM6996 Graduate Projects Graduate Projects (1 to 6 credits)**
- The candidate for the non-thesis plan Master of Science in Chemistry must complete 32 credits in courses carrying graduate credit, of which 24 credits must be in chemistry.
- Students might choose either concentration in a specialized area related to employment or a broad background in preparation for teaching.

Courses taken without an adviser's approval may be excluded from those to be applied to the degree.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0. Courses with a grade of C or lower will not receive credit.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship

- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Applied Statistics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Applied Statistics	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Mathematics and Statistics

368 Mathematics and Science Center ([map](#))

(248) 370-3430 • Fax (248) 370-4184

<http://www.oakland.edu/math/>

Graduate Coordinator:

Li Li

350 Mathematics and Science Center

(248) 370-3447

li2345@oakland.edu

Program Description

The program's primary goal is to provide the basis for the skilled and competent application of modern statistical methods. By offering the Master of Science in Applied Statistics degree program, the department seeks to increase the number of people with broad training in statistical methodology that is suitable for application in industrial, business and governmental settings. Areas of methodology in the program, in addition to a basic theoretical foundation, include design of experiments, regression analysis, discrete data, statistical computing, statistical process control, Bayesian, non-parametric, multivariate, reliability, sample survey, and time series. All applied courses make use of and stress the importance of modern statistical computing software. Courses required for the program are offered in the late afternoon or evening to accommodate the part-time student. Teaching assistantships are available to full-time students on a competitive basis.

A biostatistics concentration is offered within the Master of Science in Applied Statistics degree program. This coursework provides students with the quantitative knowledge and skills required for

health-related careers within academia, industry, and government, including clinical trials, epidemiology, and observational studies, survey research, and genetics.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - All applicants who have received a baccalaureate from a regionally accredited institution with a cumulative GPA of 3.00 or better will be considered.
 - Previous mathematical training should include the satisfactory completion of courses in multivariable calculus and linear algebra, as well as at least one introductory course in statistics. Applicants should also have some background in scientific computing.
 - Applicants who wish to be considered for a teaching assistantship should also submit a brief (up to 500 words) personal statement describing their goals and any prior teaching experience or other potentially relevant background. This statement should be sent to the Graduate Coordinator no later than February 15 in order to be considered for an appointment for the following academic year.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for the Master of Science in Applied Statistics, a student must successfully complete, with at least a B- in each course and an overall GPA of 3.00 or better, a 32-credit program as outlined below.

Course Requirements

a. Core Requirements (16 credits)

If the student has completed equivalent courses before admission, the student may substitute other statistics (STA) or Biostatistics (BST) courses. Students with the necessary mathematics background are encouraged to complete these courses in their first year in order to satisfy prerequisites for more advanced courses.

All students must take:

- **STA5002 Applied Linear Models I** Applied Linear Models I (4 credits)
- **STA5003 Applied Linear Models II** Applied Linear Models II (4 credits)
- **STA5113 Intro Mathematical/Stats I** Introduction to Mathematical Statistics I (4 credits)
- **STA5114 Intro Mathematical/Stats II** Introduction to Mathematical Statistics II (4 credits)

b. Electives (16 credits)

All students are required to complete **either** 16 credits of elective courses -OR- complete the Biostatistics Concentration.

No more than 8 credits can be outside the STA or BST rubrics. All students have the option to take elective courses from the list of courses for the biostatistics concentration. All of the selected courses must be approved by the student's adviser.

c. Biostatistics Specialization (16 credits)

This concentration emphasizes statistical theory and methods - preparing students to be statistical collaborators in interdisciplinary studies, take an active role in the design and execution of clinical trials, and develop methodologies relevant for biostatistics.

Required courses (12 credits)

- **STA5228 Reliability and Life Data I** Reliability and Life Data Analysis I (4 credits)
- **BST5441 Longitudinal Data Analysis** Longitudinal Data Analysis (4 credits)
- **BST5551 Clin Trials/Ethics/Biomed Sci** Clinical Trials and Ethics in Biomedical Sciences (4 credits)

One additional course (4 credits) from the following:

- **STA5224 Discrete Data Analysis** Discrete Data Analysis (4 credits)

- **STA5331 Bayesian Data Analysis** Bayesian Data Analysis (4 credits)
- **BST5446 Bioinfo/Biomedical Data Mng** Bioinformatics and Biomedical Data Mining (4 credits)
- **BST5771 Intro/Statistical Epidemiology** Introduction to Statistical Epidemiology (4 credits)

d. Applied Statistics Project

All students must complete an applied statistics project, demonstrating competence in applying statistical methods and theory in the solution of a practical problem or problems. The work must be carried out under the supervision of a faculty member appointed by the Graduate Coordinator, and the student must prepare a written report and make an oral presentation to a committee of faculty members appointed by the Graduate Coordinator. The committee must certify that the student has met the requirement. Contact the Graduate Coordinator for more information about this requirement.

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.00.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To fulfill the requirements for the Master of Science in Applied Statistics, a student must successfully complete, with at least a B- in each course and an overall GPA of 3.00 or better, a 32-credit program as outlined above.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Applied Statistics

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Applied Statistics	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

140

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Requirements

The Accelerated Applied Statistics Bachelor of Science to Applied Statistics Master of Science Program (B.S. to M.S.) option is designed for highly motivated and qualified students pursuing a Bachelor of Science in Applied Statistics at Oakland University and wishing to complete a Master of Science in Applied Statistics directly following. The accelerated B.S. to M.S. program allows students to take three graduate level courses, **STA5002 Applied Linear Models I**, **STA5113 Intro Mathematical/Stats I**, and **STA5114 Intro Mathematical/Stats II** while still an undergraduate and pay undergraduate tuition rates. These three graduate-level courses will substitute for **STA4002 Applied Linear Models I**, **STA4113 Int Mathematical Statistics I**, and **STA4114 Int Mathematical Statistics II** within the Applied Statistics, B.S.

To be eligible for the Applied Statistics, B.S. to M.S. option, students must:

1. Complete **MTH2554 Multivariable Calculus**, **MTH2775 Linear Algebra**, and **STA2226 Applied Probability and Stat.**
2. Have a strong quantitative background and a major GPA of 3.3 or above.
3. Show proficiency in computer programming, as satisfied by completing courses such as **CSI1300 Intro Computer Programming**, **EGR1400 Computer Problem Solving**, **MIS4470 Pract Computing Data Analytics**, **CSI1420 Intro**

to **C Programming & Unix**, **CSI2310 Data Structures**, or **CSI3610 Design and Analysis of Algorithm**, or a letter of support from a former employer or adviser.

4. Apply for and receive delayed admission into the M.S. program and thereby the substitution of graduate classes **STA5002 Applied Linear Models I**, **STA5113 Intro Mathematical/Stats I**, and **STA5114 Intro Mathematical/Stats II** for **STA4002 Applied Linear Models I**, **STA4113 Intro Mathematical Statistics I**, and **STA4114 Intro Mathematical Statistics II**.

Note: Students must receive formal delayed admission into the program to be eligible to register for **STA5002 Applied Linear Models I**, **STA5113 Intro Mathematical/Stats I**, and **STA5114 Intro Mathematical/Stats II**.

5. Complete **STA5002 Applied Linear Models I**, **STA5113 Intro Mathematical/Stats I**, and **STA5114 Intro Mathematical/Stats II** with a grade of B or better.
6. Maintain a minimum 3.0 cumulative GPA to completion of the B.A. degree in applied statistics.

Students admitted to this accelerated program can graduate with an M.S. degree in five years.

To apply:

To apply to the Applied Statistics B.S. to M.S. program, contact Professor Darrell Schmidt, schmidt@oakland.edu, 552 Mathematics and Science Center, (248) 370-3433.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Industrial Applied Mathematics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Industrial Applied Mathematics	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Mathematics and Statistics

368 Mathematics and Science Center ([map](#))
(248) 370-3430 • Fax (248) 370-4184
<http://www.oakland.edu/math/>

Graduate Coordinator:

Li Li
350 Mathematics and Science Center
(248) 370-3447
li2345@oakland.edu

Program Description

The primary goal of this program is to provide the appropriate mathematical knowledge and experience for persons seeking positions in industry. The program focuses on those mathematical theories and techniques that are applicable in the industrial setting. Emphasis is on the construction of mathematical models of industrial problems and on the mathematical and computational tools that can be applied to such models. The program has two tracks focusing on continuous mathematics or discrete mathematics.

Teaching assistantships are available to full-time students on a competitive basis.

Program Delivery

Courses required for the program are offered in the late afternoon or evening to accommodate the part-time student.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements
2. **Additional department application requirements**
 - **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - The applicant's background should include courses in multivariable calculus and linear algebra and knowledge of at least one high-level scientific programming language. In addition, recommended background includes courses in differential equations and advanced calculus (for the continuous track) or discrete mathematics (for the discrete track). Applicants lacking some aspects of the necessary background may be required to take one or more prerequisite courses prior to being admitted to the program.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science degree in Industrial Applied Mathematics, a student must successfully complete, with at least a B- in each course and an overall GPA of 3.00 or better, a 32-credit program as outlined below:

Course Requirements (32 credits)

a. Core Requirement (4 credits)

Choose one course from the following:

- APM5668 Math Model in Ind.: Discrete Mathematical Modeling in Industry: Discrete Models (4 credits)
- APM6558 Math Model in Ind.: Continuous Mathematical Modeling in Industry: Continuous Models (4 credits)
- MOR5558 Operations Research Models Mathematical Modeling in Industry: Operations Research Models (4 credits)

b. Track Requirements (at least 16 credits)

Students must choose continuous or discrete track.

1. Continuous Track

Choose one course from the following:

- APM5333 Numerical Methods Numerical Methods (4 credits)
- APM5334 App Num Methods: Matrix Method Applied Numerical Methods: Matrix Methods (4 credits)

Choose 3 courses from the following:

- APM5553 Adv Ordinary Diff Equations Advanced Ordinary Differential Equations (4 credits)
- APM5557 Adv Partial Diff Equations Advanced Partial Differential Equations (4 credits)
- APM5665 Differential Geometry Differential Geometry (4 credits)
- APM5666 Computational Geometry Computational Geometry (4 credits)
- APM6005 Applied Continuous Math: Topic Applied Continuous Mathematics: Selected Topics (4 credits)
- APM6334 Num Meth Partl Diff Equa Numerical Methods for Partial Differential Equations (4 credits)
- MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)

2. Discrete Track

Choose one course from the following:

- APM5610 Adv Data Structures/Algorithms Algorithms and Complexity (4 credits)
- APM5777 Computer Algebra Computer Algebra (4 credits)
- APM5881 Theory of Computation The Theory of Computation (4 credits)

Choose 3 courses from the following:

- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **APM5664 App. Math: Discrete Methods II Applied Mathematics: Discrete Methods II (4 credits)**
- **APM5666 Computational Geometry Computational Geometry (4 credits)**
- **APM5669 Graph Theory & Applications Graph Theory and Applications (4 credits)**
- **APM6664 Combinatorial Optimization Combinatorial Optimization (4 credits)**
- **APM6665 Approx Rndm Discrete Algorithm Approximation and Randomized Discrete Algorithms (4 credits)**
- **APM6773 Coding Theory Coding Theory (4 credits)**
- **MTH5771 Algebra I Algebra I (4 credits)**
- **MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)**

c. Electives (8 credits)

Choose 8 credits of elective courses to complete the 32-credit requirement.

d. Exit (4 credits)

The research must be carried out under the supervision of an approved adviser. The student must prepare a written report based on the research and make an oral presentation to a committee of faculty members. The student must contact the graduate coordinator for permission to enroll in this course.

- **APM6996 M.S. Research Project Master of Science Research Project (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.00.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To fulfill the requirements for a Master of Science degree in Industrial Applied Mathematics, a student must successfully complete, with at least a B- in each course and an overall GPA of 3.00 or better, a 32-credit program as outlined above.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Physics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Physics	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Physics

Credit Total

36

Delivery Method Required

in person

Summer Semesters

0

Requirements

Program Requirements

Department of Physics

190 Mathematics and Science Center ([map](#))

(248) 370-3416 • Fax (248) 370-3408

www.oakland.edu/physics

Graduate Coordinator:

Ilias Cholis

186F Mathematics and Science Center

(248) 370-3419

cholis@oakland.edu

Program Description

The program leading to the Master of Science in physics degree consists of courses, research, seminar participation, a final written research report, and an oral presentation of that research. Students receiving the degree will be prepared to work toward the Doctor of Philosophy in physics, to teach at the junior college level, or to work in industry.

The average candidate entering in the fall semester will usually require two and a half academic years to complete the degree. A well-prepared candidate should complete the required courses and research credits in four semesters. Each student's program will be adjusted to his/her/their interests and background.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester

- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**

2. **Additional department application requirements**

- Strong background in physics and mathematics.
- **Recommendation for Graduate Admission form:**
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in physics degree is awarded upon satisfactory completion of 36 credits in an approved program of study.

Course Requirements (36 credits)

a. Core Requirements (5 credits)

- **PHY6940 Seminar Seminar (1 credit)**
- **PHY6730 Quantum Mechanics Quantum Mechanics (4 credits)**

b. Electives (23 credits)

Twenty-three credits of additional 5000 or 6000-level courses approved by the department, which may include additional research credits.

c. Exit (8 credits)

- **PHY6996 Master of Science Research Master of Science Research (8 credits)**
- Final written report or critical essay

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Psychology

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Psychology	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Psychology

Credit Total

36

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Psychology

111 Pryale Hall ([map](#))

(248) 370-2300 • Fax (248) 370-4612

www.oakland.edu/psychology

Director of Graduate Training:

Virgil Zeigler-Hill

212A Pryale Hall

(248) 370-2676

zeiglerh@oakland.edu

Program Description

The Master of Science in Psychology program will provide graduate students with the knowledge, skills, and experiences necessary to become successful producers of research, investigating the structures, processes, and products of the mind.

Admission Terms and Deadlines

Students enter the program in the fall semester. Applications received after the due date may be reviewed, depending on space availability. Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadline listed below. Incomplete applications will not be sent to the department for admission review.

All applicants to this program are admitted for the fall semester only. Review of applications will begin on the following dates:

- December 1 for fall semester
- International students**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

- Graduate Application Requirements**
- Additional department application requirements**
 - Recommendation for Graduate Admission form:**
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - An essay (i.e., statement of purpose) describing the applicant's interest in the program, research interests, and career goals
 - Scores from the Graduate Record Examination (GRE).

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Transfer Credits

Official transcripts must be on file in the Graduate School. The credits earned must be from a regionally accredited institution and must carry a grade of 3.0 (B) or above. Courses graded Pass/Fail or Credit/Non-Credit are not transferable. Only courses designated graduate may be transferred. The total number of credits transferred may not exceed 9, and no more than 1 credit will be awarded per week of instruction (i.e., a 4-credit course must meet a minimum of 14 hours per week for four weeks—a minimum total of 56 class hours or 47 clock hours of instruction).

Degree requirements

The Master of Science (M.S.) in psychology degree is awarded upon satisfactory completion of 36 credits in an approved program of study, and successful completion and oral defense of an M.S. project as determined by the student's advisory committee. The M.S. project must result in a written product (e.g., literature review, publication submitted to a professional journal, grant proposal). With the permission of the student's advisory committee, a student may complete an M.S. thesis ([PSY6998 Master of Science Thesis](#)) rather than an M.S. project ([PSY6996 Master of Science Project](#)). Acceptance of the M.S. thesis by Oakland University Graduate School requires a favorable recommendation by the advisory committee. All theses must conform to university standards (see Thesis and Dissertation). Courses in which a student receives a grade below 3.0 cannot be used to meet degree requirements. One course grade

below 3.0 will result in the student being placed on academic probation. A student with two course grades below 3.0 is subject to dismissal from the program.

Course requirements (36 credits)

The total credits required to obtain a Master of Science in psychology degree is 36. Students may also take graduate courses from other departments with the approval of their advisory committee.

a. Core requirements (12 credits)

- **PSY5001 Adv Meth Psy/Behav Res I** Advanced Methods for Psychological & Behavioral Research I (4 credits)
- **PSY5101 Adv Stats for Psy/Behav Res I** Advanced Statistics for Psychological and Behavioral Research I (4 credits)
- **PSY5102 Adv Stats for Psy/Behav Res II** Advanced Statistics for Psychological & Behavioral Research II (4 credits)

b. Elective courses (20 credits)

Choose 5 courses from the following:

- **PSY5002 Adv Meth Psy/Behav Res II** Advanced Methods for Psychological & Behavioral Research II (4 credits)
- **PSY5103 Introduction to SEM** Introduction to Structural Equation Modeling (SEM) (4 credits)
- **PSY5104 Introduction to MLM** Introduction to Multilevel Modeling (MLM) (4 credits)
- **PSY5201 Social Cog & Interper Process** Social Cognition and Interpersonal Processes (4 credits)
- **PSY5202 Self & Interper Relationships** Self and Interpersonal Relationships (4 credits)
- **PSY5204 Emotion and Motivation** Emotion and Motivation (4 credits)
- **PSY5205 Individuals and Communities** Individuals and Communities (4 credits)
- **PSY5206 Proseminar Soc/Behav Process** Proseminar in Social and Behavioral Processes (4 credits)
- **PSY5207 Persnalty, Ind Diff & Intellig** Personality, Individual Differences, and Intelligence (4 credits)
- **PSY5208 Intergroup Relations** Intergroup Relations (4 credits)
- **PSY5301 Animal Cognition** Animal Cognition (4 credits)
- **PSY5302 Evol Psych & Animal Behavior** Evolutionary Psychology and Animal Behavior (4 credits)
- **PSY5303 Hormones & Human Behavior** Hormones and Human Behavior (4 credits)

- **PSY5304 Psychology of Human Sexuality** Psychology of Human Sexuality (4 credits)
- **PSY5305 Curr Dir-Evolutionary Psych** Current Directions in Evolutionary Psychology (4 credits)
- **PSY5401 Bio Factors of Hlth & Wellness** Biopsychosocial Factors of Health and Wellness (4 credits)
- **PSY5402 Health Behavior Change** Health Behavior Change (4 credits)
- **PSY5408 Analysis of Psychopathology** Analysis of Psychopathology (4 credits)
- **PSY5501 Life-span Devel Theories & Res** Life-span Development Theories and Research (4 credits)
- **PSY5502 Seminar-Cognitive Development** Seminar in Cognitive Development (4 credits)
- **PSY5601 Cog Psy: Theory & Application** Cognitive Psychology: Theory and Application (4 credits)
- **PSY5602 Conditioning, Learning, Memory** Conditioning, Learning and Memory (4 credits)
- **PSY5603 Biopsychosocial Mediation of C** Biopsychosocial Mediation of Creativity (4 credits)
- **PSY5604 Human Vision** Human Vision (4 credits)
- **PSY5605 Neuroanat/Brain Development** Neuroanatomy, Brain Development and Neural (4 credits)
- **PSY5606 Proseminar Biol/Basic Process** Proseminar in Biological and Basis Processes (4 credits)
- **PSY5607 Adv Tops/Bio & Basic Processes** Advanced Topics in Biological and Basic Processes (4 credits)
- **PSY5990 Adv Top in Meth Psy/Behav Dsn** Advanced Topics in Methods of Psychological and Behavioral Research Design (4 credits)
- **PSY5991 Adv Topics in Psych Statistics** Advanced Topics in Statistics for Psychological and Behavioral Research (4 credits)
- **PSY5992 Adv Top in Soc/Behav Processes** Advanced Topics in Social and Behavioral Processes (4 credits)
- **PSY5993 Spec Topics-Behavioral Health** Special Topics in Behavioral Health (4 credits)
- **PSY6001 Instruction/Psychology Science** Instruction in Psychological Science (4 credits)
- **PSY6970 Independent Study** Independent Study (1 to 4 credits)

c. Master of Science Project/Thesis (4 credits)

- **PSY6996 Master of Science Project** Master of Science Project (1 TO 4 credits) (4 credits)

or

- [PSY6998 Master of Science Thesis](#) Master of Science Thesis (**1 TO 4 credits**)
- The successful completion of original research—demonstrating competence in design, conduct and analysis, the creation of an M.S. thesis—effectively and accurately characterizing the research, communicating the findings and placing the research in context, and the oral defense of the thesis are major features of the M.S. degree. The advisory committee will approve and grade (P or F) the student's M.S. thesis and will be responsible for guiding this process and approving the products (i.e., the research, the thesis, and the defense of the thesis). Acceptance of the thesis by Oakland University Graduate School requires favorable recommendations by the advisory committee. All theses must conform to university standards (see [Thesis and Dissertation](#)).

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In the Master of Science in Psychology degree program, credit will not be awarded for courses in which a grade less than 3.0 is earned. All numerical grades earned are used in computing a student's grade-point average.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Academic advising and advisory committee

Upon admission, students will work with the Director of Graduate Training to plan their coursework for the first semester. After fall registration, the role of academic adviser will be assumed by the major professor, who will serve as the mentor and academic adviser for the student as well as the chair of the M.S. project or M.S. thesis committee. Within the first term of study, the student is required to select an advisory committee consisting of their major professor and one additional faculty member. The advisory committee will (1) assist the student in developing and implementing a plan of study, (2) meet at least annually to evaluate the student's progress, (3) and approve and grade the student's M.S. project or M.S. thesis.

Plan of Study

Upon admission, students must develop a plan of study in consultation with their major professor and the Director of Graduate Training. As soon as the student forms an advisory committee, the committee will review and update the plan of study. The plan of study must be submitted to Oakland University Graduate School.

Enrollment

All students are required to register for at least one credit every fall and winter semester in every academic year, after their admission to the program.

Additional Requirements

Students will be encouraged to participate in research teams involving faculty researchers, other graduate students, and undergraduates. Although the major focus will be on increasing the quality and variety of research experiences available to undergraduates, this activity is designed to provide graduate students with directed mentoring experience.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Psychology

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MS	Psychology	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Psychology

Credit Total

148

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

To be eligible for the Psychology, Combined B.A./M.S. option, students must:

The Accelerated Psychology, Combined B.A./M.S. option is designed for high achieving undergraduate students pursuing a Bachelor of Arts in Psychology at Oakland University and wishing to complete a Master of Science in Psychology directly following. The accelerated combined B.A./M.S. program allows students to take two graduate level courses, **PSY5001 Adv Meth Psy/Behav Res I** and **PSY5101 Adv Stats for Psy/Behav Res I**, while still an undergraduate and pay undergraduate tuition rates. **PSY5001 Adv Meth Psy/Behav Res I** and **PSY5101 Adv Stats for Psy/Behav Res I** will substitute for the 2 open elective courses (requirement #4) within the **Psychology, B.A.**

1. Have earned a minimum cumulative grade point average of 3.0 or higher in **PSY1000 Introduction to Psychology Introduction to Psychology**, **PSY2500 Research Design in Psychology Research Design in Psychology**, and **PSY2510 Statistics in Psychology Statistics in Psychology**.
2. Have an overall GPA of 3.2.
3. Apply for and receive delayed admission into the M.S. program and thereby the substitution of graduate classes **PSY5001 Adv Meth Psy/Behav Res I** and **PSY5101 Adv Stats for Psy/Behav Res I** for the 2 undergraduate open elective courses in the B.A. Note: Students must receive formal delayed admission into the program to be eligible to register for **PSY5001 Adv Meth Psy/Behav Res I** and **PSY5101 Adv Stats for Psy/Behav Res I**.

4. Maintain a minimum 3.0 cumulative grade point average to completion of the B.A. degree in Psychology.

Students admitted to this accelerated program can graduate with an M.S. degree in 5 years.

To apply:

To apply to the Psychology, Combined B.A./M.S. program, contact Dr. Rebecca Malatesta, Chief Undergraduate Academic Adviser.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Finance

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Finance	Major

Program Type

Master

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

30

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Faculty Director: MSF Program

Dr. Ranadeb Chaudhuri

423 Elliott Hall

(248) 370-3200

chaudhur@oakland.edu

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

The Master of Science in Finance (MSF) program is offered in the Department of Accounting and Finance within the School of Business Administration. Designed for students aiming to pursue careers in investments, corporate finance, risk management, credit analysis, and related areas, the MSF program emphasizes cutting-edge financial analytics and data-driven decision-making as essential tools in today's complex financial landscape. This advanced degree equips finance professionals to thrive in a dynamic corporate environment by providing deep analytical expertise, strong communication skills, and a commitment to ethical responsibility. Graduates will be capable

of analyzing critical financial information, conducting data-driven analysis of economic and market trends, and offering valuable input in strategic decision-making processes.

The program plays a vital role in advancing the mission and strategic goals of the university. Specifically, it aims to:

- Equip students with core concepts and analytical tools in finance to develop integrated, innovative strategies that address both current and emerging business challenges
- Provide a pathway to careers in investments, corporate finance, risk management, credit analysis, and other related fields
- Enhance students' analytical thinking, problem solving, communication, and data interpretation skills for effective real-world application
- Offer a graduate-level curriculum that delivers superior technical and analytical knowledge, advancing beyond the foundational skills taught in undergraduate finance programs
- Promote research and scholarship in finance, contributing to the academic reputation of the School of Business Administration and the broader university community
- Foster partnerships with business seeking finance professionals with a strong foundation in modeling, data analytics, and strategic insight
- Engage alumni to strengthen the program's industry relevance, professional networks, and mentorship opportunities

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Domestic Students

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Students

- May 1 for fall (September) admission
- September 1 for winter (January) admission
- January 1 for summer (May) admission

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

- Applicants must meet the general admission requirements for graduate study at Oakland University

2. Additional department application requirement

- Recommendation for Graduate Admission form
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- Curriculum Vitae or Resumé

GMAT Policy

The GMAT/GRE is **not** required if you meet any of the following criteria:

- Earned a master's degree or higher with a minimum overall GPA of 3.0 or has an acceptable score on the GRE, LSAT, or MCAT entrance exam
- Earned a bachelor's degree with an overall GPA of at least 3.0 from an AACSB-accredited business school
- Earned a bachelor's degree in any major with an overall GPA of at least 3.2 from a regionally accredited program
- Completed a business-related certification such as CPA, CFA, CFP or FRM
- Has at least 3 years of relevant professional work experience and an undergraduate overall GPA of at least 2.75
- Has completed at least 3 years of service in the US Armed Services

If an applicant does not meet any of the above criteria, it is recommended that they connect with the Graduate Business Programs Office to discuss GMAT preparation and/or other options to be considered for admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in Finance program is awarded upon satisfactory completion of a minimum of 30 credits in an approved program of study. The curriculum for the program is as follows:

MSF Course Requirements

A. Foundation Courses (18 Credits)

A foundation course may be waived if an equivalent course was previously completed with a grade of "C" or above. The MSF student who is waived from foundation requirements **must** substitute graduate business electives to complete their 30-credit program. The MSF Director must approve these electives.

The following courses are **required** of all MSF students:

- **ACC5110 Financial Accounting** Financial Accounting (3 credits)
- **QMM5100 Quantitative Methods for Mgrs** Quantitative Methods for Managers (3 credits)
- **FIN5330 Financial Management** Financial Management (3 credits)
- **FIN5600 Investment Analysis** Investment Analysis (3 credits)
- **FIN5680 Financial Modeling** Financial Modeling (3 credits)
- **FIN5760 Financial Data Analytics** Financial Data Analytics (3 credits)

B. Electives: (minimum of 4 courses)

- **ACC5120 Managerial Accounting Systems** Managerial Accounting Systems (3 credits)
- **ACC6010 Financial Analysis & Valuation** Financial Analysis and Valuation (3 credits)
- **FIN5450 Real Estate Invest Analysis** Real Estate Investment Analysis (3 credits)
- **FIN5690 Financial Institutions Mgt** Financial Institutions Management (3 credits)
- **FIN5700 International Financial Mgt** International Financial Management (3 credits)
- **FIN5840 Deep Learn/Neural NW in Fin** Deep Learning & Neural Networks in Finance (3 credits)
- **FIN6055 Portfolio Management** Portfolio Management (3 credits)
- **FIN6070 Fixed Income Analysis** Fixed Income Analysis (3 credits)
- **FIN6250 Derivatives & Risk Management** Derivatives and Risk Management (3 credits)
- **FIN6900 Special Topics in Finance** Special Topics in Finance (3 credits)
- **MIS5460 Business Analytics** Business Analytics (3 credits)
- **MIS5470 Prac. Comp for Data Analytics** Practical Computing for Data Analytics (3 credits)
- **MIS5480 Adv Analytics with Python** Advanced Analytics with Python (3 credits)

C. Capstone Course (3 credits)

Required course, must be taken in last semester.

- **FIN6370 Financial Strategies** Financial Strategies (3 credits)

Additional Program Information

- In compliance with university policy, no undergraduate courses will be applied toward graduate degree requirements.
- Students must meet the prerequisites for all MSF courses.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below 2.0 must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Information Technology Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Information Technology Management	Major

Program Type
Master

College/School
School of Business Administration (BA)

Department(s)
Decision & Info Sciences

Credit Total 30	Delivery Method Partially Online, Fully Online	Required Summer Semesters 0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Department Chair:

Vijayan Sugumaran, Ph.D.

442 Elliott Hall

(248) 370-4649

sugumara@oakland.edu

Faculty Director:

Xiaodong Deng

340 Elliott Hall

(248) 370-4089

deng@oakland.edu

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

The Master of Science in Information Technology Management (MSITM) is offered by the Department of Decision and Information Sciences within the School of Business Administration. This degree puts managerial and technical skills at the forefront by preparing students for career managing information and creating information

technology or systems in today's digital world. Through a program based on experiential learning, students in the MSITM program learn practical skills needed to advance their careers. The MSITM program is designed to prepare students for careers in Information Systems Strategy Analytics and Management and Cybersecurity Analytics and Management (CAM). Concentration available in Cybersecurity Analytics and Management.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Students

- May 1 for fall (September) admission
- September 1 for winter (January) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form**
One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Curriculum Vitae or Resumé

GMAT Policy

The GMAT/GRE is **not** required if you meet any of the following criteria:

- Earned a master's degree or higher with a minimum overall GPA of 3.0 or Has an acceptable score on the GRE, LSAT, or MCAT entrance exam
- Earned a bachelor's degree with an overall GPA of at least 3.0 from an AACSB-accredited business school
- Earned a bachelor's degree in any major with an overall GPA of at least 3.2 from a regionally accredited program
- Completed a business-related certification such as CPA, CFA, CFP or FRM
- Has at least 3 years of relevant professional work experience and an undergraduate overall GPA of at least 2.75
- Has completed at least 3 years of service in the US Armed Services

If an applicant does not meet any of the above criteria, it is recommended that they connect with the Graduate Business Programs Office to discuss GMAT preparation and/or other options to be considered for admission.

Admission Review and Assessment

Admission to the Master of Science in Information Technology Management degree program is selective and depends on several elements, including scholarship and ability to communicate effectively. In making admission recommendations, the department assesses the potential of applicants for success in the MSITM program by examining their undergraduate records, their GMAT or GRE scores, their recommendations, and their experience.

Degree Requirements

The Master of Science in Information Technology Management degree program requires a minimum of 30 credits.

Course Requirements (30 credits)

a. Preparatory Course

- **MIS3050 Info Technology Foundations Information Technology Foundations (3 credits)**

b. Foundation Courses

- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**
- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers (3 credits)**

Only required for Business Analytics' electives

c. IT Core Courses (9 credits)

- **MIS5040 Intro Database/Data Warehouse Introduction to Databases and Data Warehousing (3 credits)**
- **MIS5050 Systems Analysis and Design Systems Analysis and Design (3 credits) or MIS5170 Practical Cyber Security Funda Practical Cyber Security Fundamentals (3 credits) (MIS 5170 for CAM concentration)**
- **MIS5060 Managing Info Sys Projects Managing Information Systems Projects (3 credits)**

Note: MSITM students who are waived from any core courses must select other graduate business electives to fulfill their 30-credit program.

d. Electives: Concentration or General Focus (18 credits)

After a student has built a solid foundation, they will be able to choose 18 credits from a host of electives offered by the Department of Decision and Information Sciences on emerging information technologies and topics of contemporary interest. Other electives from related disciplines may be considered with the approval of the program director.

Cybersecurity Analytics & Management (CAM) Concentration

Required Courses (9 credits)

- **MIS5180 IS Risk Analys & Sec Cont Dev IS Risk Analysis and Security Controls Development (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**
- **MIS5700 IS Security IS Security (3 credits)**

Concentration electives (Choose 9 credits):

- **MIS5630 Intro to Networks Introduction to Networks (3 credits)**
- **MIS5640 Network and Security Mgmt Network and Security Management (3 credits)**
- **MIS5750 Mobile Sec & Secure App Dev Mobile Security and Secure Application Development (3 credits)**
- **MIS5810 Digital Forensic Analysis Digital Forensics Analysis and Incident Response (3 credits)**
- **MIS5860 Adv App of Analyt Cyber Sec Advanced Application of Analytics in Cyber Security (3 credits)**
- **MIS6120 Info Security Legal Comp Ethic Information Security Legal Compliance and Ethics (3 credits)**
- **MIS6410 IS Privacy IS Privacy (3 credits)**
- **MIS6430 Intell Property/Public Domain Intellectual Property and the Public Domain in the Age of Remix (3 credits)**
- **CSI5480 Information Security Practice Information Security Practices (4 credits)**

General Focus electives

Choose 6 courses from concentration electives as well as the following list:

- **MIS5600 Deep Learning/Text Analytics Deep Learning and Text Analytics (3 credits)**
- **MIS6060 Adv Databases/Big Data Mgt Advanced Databases and Big Data Management (3 credits)**
- **MIS6200 Electronic Commerce Electronic Commerce (3 credits)**
- **MIS6220 Business Object Development Business Object Development (3 credits)**
- **MIS6250 IT Planning and Strategy IT Planning and Strategy (3 credits)**
- **MIS6300 Manag Gbl Srcg IT & IT En Svc Managing Global Outsourcing of IT and IT Enabled Services (3 credits)**
- **MIS6480 Issues: International IT Issues in International Information Technology (3 credits)**

- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**

Following courses require **QMM5100 Quantitative Methods for Mgrs**

- **MIS5460 Business Analytics Business Analytics (3 credits)**
- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics (3 credits)**
- **MIS5480 Adv Analytics with Python Advanced Analytics with Python (3 credits)**
- **MIS5500 Web Analytics Web Analytics (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**
- **MIS6900 Special Topics in MIS Special Topic: Social Network Analysis (3 credits)**
- **MIS6900 Special Topics in MIS Special Topic: Advanced Analytics with Python (3 credits)**
- **POM5410 Operations Analytics Operations Analytics (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**
- **QMM6400 Management Science Management Science (3 credits)**
- Other electives from related disciplines (with prior approval)

e. Capstone Course (3 credits)

All students are required to complete this course. The project seminar provides students an opportunity to integrate the concepts in the MSITM program.

- **MIS6940 Project Seminar Project Seminar (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below 2.0 must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Management Information Systems/ Information Technology Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Management Information Systems/ Information Technology Management	Major

Program Type

Combined Program

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

138

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

The Management Information Systems, B.S./Information Technology Management, M.S., is a combined bachelor/master degree program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the 2 degrees were done independently. It is designed for students who are high academic achievers and creates an integrated learning experience along several knowledge paths. The MSITM, Combined B.S./M.S. program students will be able to earn their master's degree by completing 18 credits (6 courses instead of 10) beyond the undergraduate MIS major requirements.

Students accepted for the MSITM, Combined B.S./M.S. program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the MSITM, Combined B.S./M.S. program and be offered deferred admission to the graduate program during their junior year. MSITM, Combined B.S./M.S. applicants may request to waive the GMAT requirement. To be eligible for the waiver, applicants must have a cumulative GPA of 3.0 or higher. To request a waiver, download, complete, and submit the Request to Waive GMAT Form. This form is found under Supplemental Application, School of Business Administration.

It is important that students register for the 5000-level classes that are double counted in order to satisfy the electives requirement for the MIS major as well as get credit towards the MSITM program. If students take only the 4000-level electives, those courses cannot be counted for the MSITM degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through Graduate Study.

Please refer to the Graduate Catalog for the recommended Schedule and Course Options for the MSITM, Combined B.S./M.S. program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Analytics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Business Analytics	Major

Program Type

Master

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

30

Delivery Method Required

Fully Online

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Department Chair and Faculty Director:

Vijayan Sugumaran, Ph.D.

442 Elliott Hall

(248) 370-4649

sugumara@oakland.edu

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3277

trumbull@oakland.edu

Program Description

OU's MS in Business Analytics is designed for professionals seeking to deepen their understanding and develop their skills in harnessing data to identify opportunities, respond to challenges, influence decision making and implement successful solutions.

Graduates of the program will be equipped to use data to solve business problems across industries and disciplines. Industries experiencing strong growth in the use of business analytics include financial services, retail, health services, accounting and auditing, transportation and logistics, entertainment, sports, and travel.

Through the combination of the focused curriculum, experiential learning, and expert-led courses, students will graduate with the skills to make data-driven decisions based on their business knowledge and ability to expertly utilize a variety of statistical and quantitative methods, computational tools, and predictive models.

The program is structured around four modules:

- Preparatory and Foundation Courses - Required for students who lack an information systems and/or statistics background. Students with the necessary background will be waived from these courses. Credits from these courses do not count toward the degree.
- Core Courses - Provides analysis, design, and implementation skills
- Elective Courses - Develops in-depth knowledge
- Capstone Project - Synthesizes and applies students' knowledge to contemporary issues

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International applicants

- May 1 for fall (September) admission
- September 1 for winter (January) admission

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Requirements for Recommendation: One recommendation must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Curriculum Vitae or Resumé

GMAT Policy

The GMAT/GRE is **not** required if you meet any of the following criteria:

- Earned a master's degree or higher with a minimum overall GPA of 3.0 or has earned a 75th percentile score on the GRE, LSAT, or MCAT entrance exam

- Earned a bachelor's degree with an overall GPA of at least 3.0 from an AACSB-accredited business school
- Earned a bachelor's degree in any major with an overall GPA of at least 3.2 from a regionally accredited program
- Completed a business-related certification such as CPA, CFA, CFP or FRM
- Has at least 3 years of relevant professional work experience and an undergraduate overall GPA of at least 2.75

If an applicant does not meet any of the above criteria, it is recommended that they connect with the Graduate Business Programs Office to discuss GMAT preparation and or other options to be considered for admission.

Admission review and assessment

Admission to the Master of Science in Business Analytics degree program is selective and depends on several elements, including scholarship and ability to communicate effectively. In making admission recommendations, the department assesses the potential of applicants for success in the MSBA program by examining their undergraduate transcripts, their GMAT or GRE scores, their recommendations, and their work experience.

Program Requirements

The Master of Science in Business Analytics degree program requires a minimum of 30 credits.

Course Requirements

The program is structured around four modules - preparatory and foundation courses; IT core courses; business analytics courses; and the capstone course.

Preparatory and foundation courses are required for students who lack an information systems background. Students with the necessary background will be waived from these courses. Credits from these courses do not count toward the degree.

IT core courses provide analysis, design, and implementation skills. Students waived from IT core courses must select other graduate business electives to complete their program.

a. Preparatory Course

- **MIS3050 Info Technology Foundations Information Technology Foundations (3 credits)**

b. Foundation Courses

- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**
- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers (3 credits)**

c. IT Core Courses (9 credits)

- **MIS5040 Intro Database/Data Warehouse Introduction to Databases and Data Warehousing (3 credits)**
- **MIS5060 Managing Info Sys Projects Managing Information Systems Projects (3 credits)**
- **MIS5460 Business Analytics Business Analytics (3 credits)**

d. Business Analytics Required and Elective Courses (18 credits)

Required Course

- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**

Choose five from the following:

- **MIS5470 Prac. Comp for Data Analytics Practical Computing for Data Analytics (3 credits)**
- **MIS5480 Adv Analytics with Python Advanced Analytics with Python (3 credits)**
- **MIS5500 Web Analytics Web Analytics (3 credits)**
- **MIS5600 Deep Learning/Text Analytics Deep Learning and Text Analytics (3 credits)**
- **MIS6060 Adv Databases/Big Data Mgt Advanced Databases and Big Data Management (3 credits)**
- **MIS 6900 - Special Topic: Social Network Analysis (3 credits)**
- **MIS 6900 - Special Topic: Advanced Analytics with Python (3 credits)**
- **MIS 6900 - Special Topics in Management Information Systems (3 credits)**
- **POM5410 Operations Analytics Operations Analytics (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**
- **QMM6400 Management Science Management Science (3 credits)**

Graduate electives from related disciplines (with prior approval)

e. Capstone Course (3 credits)

All students are required to complete this course. The project seminar provides students an opportunity to integrate the concepts in the MSBA program.

- **MIS6940 Project Seminar Project Seminar (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below C must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Analytics

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Business Analytics	Major

Program Type

Combined Program

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

138

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

The Combined BS/MS Business Analytics Program (BS/MS) is a combined bachelor/master degree program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently. It is designed for students who are high academic achievers and creates an integrated learning experience along several knowledge paths. The BS/MS program students will be able to earn their master's degree by completing no more than 12 credits of graduate courses (**MIS5160 Software Program/Project Mgt**, **MIS5460 Business Analytics**, **MIS5560 Intro to Data Science**, and **MIS5470 Prac. Comp for Data Analytics**) beyond the undergraduate MIS major requirements.

Students accepted for the BS/MS program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year. BS/MS applicants may request to waive the GMAT requirement. To be eligible for the waiver, applicants must have a cumulative GPA of 3.0 or higher. To request a waiver, download, complete, and submit the Request to Waive GMAT Form. This form is found under Supplemental Application, School of Business Administration.

It is important that students register for the 5000-level classes that are double counted in order to satisfy the electives requirement for the MIS major as well as get credit towards the BS/MS program. If students take only the 4000-level electives, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall

undergraduate GPA 3.2 and have earned a B or above in the double-counted graduate courses, will be reclassified as a graduate student through Graduate School.

To be eligible for the Business Analytics, Combined B.S./M.S. option, students must:

1. Complete **MIS1000 Bus Problem Solving with IT**, **MIS3000 Management Info Systems**, **MIS3050 Info Technology Foundations**, **MIS3140 Business Database Systems**, and **MIS4050 Systems Analysis and Design**
2. Have a major GPA of 3.2 or above.
3. Apply for and receive delayed admission in the M.S. program and thereby the substitution of graduate classes **MIS5160 Software Program/Project Mgt**, **MIS5460 Business Analytics**, **MIS5560 Intro to Data Science**, and **MIS5470 Prac. Comp for Data Analytics** in place of **MIS4060 Managing Info. Sys. Projects**, **MIS4460 Business Analytics**, **MIS4560 Introduction to Data Science**, and **MIS4470 Pract Computing Data Analytics**.
4. Maintain a minimum 3.2 cumulative GPA to completion of the degree in Management Information Systems, B.S., Concentration in Business Analytics.
5. Students must receive formal delayed admission into the program prior to registering for **MIS5160 Software Program/Project Mgt**, **MIS5460 Business Analytics**, **MIS5560 Intro to Data Science**, and **MIS5470 Prac. Comp for Data Analytics**.

For more information:

For the full MS program requirements visit the Master of Science in Business Analytics [website](#).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Computer Science	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

32

Delivery Method Required

in person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Centr ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<http://www.cse.secs.oakland.edu/>

Coordinator:

Guangzhi Qu

546 Engineering Center

(248) 370-2690

gqu@oakland.edu

Program Description

The Master of Science in Computer Science degree program is designed to prepare students for significant computer-related careers in business and industry and simultaneously for further graduate study. A natural continuation of studies is offered for students who have received a baccalaureate in computer science and are interested in furthering their technical knowledge. The program offers two tracks: a research track and a professional track.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester

- March 1 (regular) for summer semester

- International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- Graduate application requirements**
- Additional department application requirements**
 - Recommendation for Graduate Admission form
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's last degree is from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science in computer science, information technology, software engineering, computer engineering, or equivalent. Applicants from other disciplines would be considered after successfully completing appropriate prerequisite courses.
 - Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.

If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.

Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in Computer Science degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements

1. Research Track (32 credits)

The research track requires 32 credits including 8 credits of thesis to graduate. The structure of credits is as follows:

a. Core Requirement (16 credits)

Choose three courses from the following:

- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5200 Fundamentals/Software Modeling Object Oriented Analysis and Design (4 credits)**
- **CSI5350 Programng Languages Compilers Programming Languages and Compilers (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**
- **CSI5500 Operating Systems I Operating Systems I (4 credits)**
- **CSI5640 Computer Architecture Computer Architecture (4 credits)**

Choose one course from the following:

- **CSI5610 Adv Data Structures/ Algorithms Advanced Data Structures and Algorithms (4 credits)**

- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **APM5777 Computer Algebra Computer Algebra (4 credits)**
- **APM5881 Theory of Computation The Theory of Computation (4 credits)**

b. Depth Requirement (8 credits)

Students on a research track must complete a thesis for 8 credits.

- **CSI6998 Master's Thesis Research Master's Thesis Research (2 to 8 credits)**

c. Electives (8 credits)*

Eight credits of electives should be completed. Electives may be selected from any specialty group.

A complete list of 5000- to 7000-level courses offered by the department is listed below.

Note: Courses listed under *Miscellaneous* do not form a specialty group. However, Special Topic courses (**CSI5900 Special Topics**, **CSI7900 Special Topics**) and maximum of four credits of Independent Study (CSI 5970, CSI 7970) can be taken as electives.

2. Professional Track (32 credits)

The professional track requires 32 credits of graduate coursework. The structure of credits is as follows.

a. Core Requirement (16 credits)

Choose three courses from the following:

- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5350 Programng Languages Compilers Programming Languages and Compilers (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**
- **CSI5500 Operating Systems I Operating Systems I (4 credits)**
- **CSI5640 Computer Architecture Computer Architecture (4 credits)**

Choose one course from the following:

- **CSI5610 Adv Data Structures/ Algorithms** Advanced Data Structures and Algorithms (4 credits)
- **APM5663 App Mth: Discrete Methods I** Applied Mathematics: Discrete Methods I (4 credits)
- **APM5777 Computer Algebra** Computer Algebra (4 credits)
- **APM5881 Theory of Computation** The Theory of Computation (4 credits)

b. Depth Requirement (8 credits)*

Students on a professional track must complete two courses (8 credits) from one specialty group.

c. Electives (8 credits)*

Eight credits of electives should be completed. Electives may be selected from any specialty group.

A complete list of 5000- to 7000-level courses offered by the department is listed below.

Note: Courses listed under *Miscellaneous* do not form a specialty group. However, Special Topic courses (**CSI5900 Special Topics**, **CSI7900 Special Topics**) and maximum of four credits of Independent Study (**CSI5970 Independent Study**, **CSI7970 Independent Study**) can be taken as electives.

Complete list of 5000- to 7000-level courses offered by the department

The following is the complete list of 5000- to 7000-level courses offered by the department. Prerequisite courses do not give any graduate credit. These are meant for students lacking sufficient background in computer science and engineering. Please consult the degree requirements to see how best to choose courses for your program of study.

Note: Courses listed under the heading *Miscellaneous* do not form a specialty group.

*These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Specialty Group Courses

1. Networking and Systems Group

- **CSI5240 Cloud Computing** Cloud Computing (4 credits)

- **CSI5360 Concurrent/Multi-Core Prgmng** Concurrent and Multi-Core Programming (4 credits)
- **CSI5460 Information Security** Information Security (4 credits)
- **CSI5470 Computer Networks** Computer Networks (4 credits)
- **CSI5490 Wireless & Industrial Networks** Wireless and Industrial Networks (4 credits)
- **CSI5500 Operating Systems I** Operating Systems I (4 credits)
- **CSI6500 Operating Systems II** Operating Systems II (4 credits)
- **CSI6640 Parallel Computer Architecture** Parallel Computer Architecture (4 credits)

2. Embedded Systems Group

- **CSI5760 Embedded Syst Dsgn Using FPGAs** Embedded Systems Design Using FPGAs (4 credits)

3. Information Technology Group

- **CSI5230 Android Application Developmen** Mobile and Smart Phone Application Development (4 credits)
- **CSI5240 Cloud Computing** Cloud Computing (4 credits)
- **CSI5460 Information Security** Information Security (4 credits)
- **CSI5480 Information Security Practice** Information Security Practices (4 credits)
- **CSI5510 Adv Web Design & Application** Adv Web Design Application (4 credits)
- **CSI5780 Bioinformatics** Bioinformatics (4 credits)
- **CSI5810 Info Retrieval/Knowldg Discov** Information Retrieval and Knowledge Discovery (4 credits)
- **CSI5830 E-Commerce and ERP** E-Commerce and ERP (4 credits)
- **CSI6450 Database Systems II** Database Systems II (4 credits)

4. Software Engineering Group

- CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)
- CSI5300 Software Prototypg/Validation Software Prototyping and Validation (4 credits)
- CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)
- CSI5390 Software Engineering Software Engineering (4 credits)
- CSI5430 IT Project Management IT Project Management (4 credits)
- CSI5420 Rapid Proto & Compont Software Rapid Prototyping and Component Software (4 credits)
- CSI5700 Software Security Software Security (4 credits)

5. Intelligent Computing Group

- CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)
- CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)
- CSI 5340 - Deep Learning (4 credits)
- CSI5550 Visual Computing Visual Computing (4 credits)
- CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)
- CSI5170 Machine Learning Machine Learning (4 credits)
- CSI6550 Advanced Visual Computing Advanced Visual Computing (4 credits)
- CSI5110 Foundations of Edge AI Foundations of Edge AI (4 credits)
- CSI5900 Special Topics ST: AI-Human Interaction (4 credits)
- CSI5180 Natural Language Processing Natural Language Processing (4 credits)
- CSI5150 AI for IT Operations AI for IT Operations (4 credits)

Miscellaneous

- CSI5970 Independent Study Independent Study (1 TO 4 credits)
- CSI5900 Special Topics Special Topics (1 TO 4 credits)
- CSI5950 Professional Practice Professional Practice (2 TO 4 credits)
- CSI6998 Master's Thesis Research Master's Thesis Research (2 to 8 credits)
- CSI7970 Independent Study Independent Study (1 to 4 credits)
- CSI7900 Special Topics Special Topics (2 TO 4 credits)

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more

than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, a master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits. No more than 8 thesis or project credits may be used toward the degree requirements.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level

version of an OU slash course 4000/5000 course cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, most courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**CSI6996 Graduate CSE Project**) or a directed master's thesis research (**CSI6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Students electing a thesis option must accumulate a minimum of 8 credits of CSI 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see **Thesis and Dissertation**).

At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Information Technology/Computer Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Information Technology/ Computer Science	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

The Combined BS/MS in Information Technology (BS) and Computer Science (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Information Technology major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

To be eligible for the Information Technology/Computer Science, Combined B.S./M.S. option, students must:

1. Have a major GPA of 3.2 or above.
2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of 3 graduate classes (12 credits).
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Information Technology**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Smart Manufacturing

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Smart Manufacturing	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Industrial/Systems Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Industrial and Systems Engineering

502 Engineering Center ([map](#))

(248) 370-2989 • Fax (248) 370-2699

www.oakland.edu/ise

Coordinator

Vijitashwa Pandey

502B Engineering Center

(248) 370-2989

pandey2@oakland.edu

Program Description:

The Master of Science Program in Smart Manufacturing is designed to equip students with the knowledge and skills necessary to excel in the rapidly evolving field of smart manufacturing. This interdisciplinary program encompasses digital twins, data connectivity, data analytics and simulation of manufacturing systems.

The curriculum provides a strong foundation in core manufacturing principles while offering depth-areas in digital twins, artificial intelligence in manufacturing, augmented and virtual reality (AR/VR), and collaborative robotics. Students benefit from hands-on experience in cutting-edge laboratories and have the opportunity to engage with leading academic and industry experts in digital manufacturing.

Graduates of the program will be well-positioned for careers across various sectors, including automotive, aerospace, transportation, defense, and government. Admission is open to candidates holding a bachelor's degree in any engineering discipline (industrial,

mechanical, electrical, computer, chemical engineering etc.)

Applicants from related fields may also be considered, subject to the completion of additional preparatory coursework, if needed.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Requirements for recommendations:
 - Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores of their Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a Request to Waive GRE form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.

- Bachelor of Science in any engineering discipline. Applicants from other disciplines such as computer science, engineering technology, information technology and related fields would be considered after successfully completing appropriate prerequisite courses.
- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered.
- For applicants for whom the GRE is not waived, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science degree in smart manufacturing, a student must:

- Successfully complete at least 32 credits of graduate level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science
- Course credit will not be awarded for work applied toward another degree
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree
- Complete no more than two courses with a minimum grade of B-
- Satisfy all requirements concerning academic progress (see Academic progress).

Course Requirements (32 credits)

Theory Courses (4 credits)

Choose one course from the following:

- **ISE5517 Stats Methods in Engineering** Statistical Methods in Engineering (4 credits)
- **ISE5430 EGR Ops Rsrch/Deterministic Engineering** Operations Research - Deterministic Models (4 credits)
- **ISE5431 Engr Ops Rsrch/Stochastic Mods** Engineering Operations Research - Stochastic Models (4 credits)

- **ISE5431 Engr Ops Rsrch/Stochastic Mods** Metamodeling and Optimization Methods in Design (4 credits)
- **SYS5402 System Optimization & Design** Systems Optimization and Design (4 credits)
- **SYS5404 Signal Linear Systems Analys** Signal and Linear Systems Analysis (4 credits)

Required Courses (12 credits)

Manufacturing Foundations

Choose one course from the following:

- **ISE5464 Design Mfg/Assembly Analysis** Design for Manufacturing and Assembly Analysis (4 credits)
- **ISE5475 Additive Manufacturing** Additive Manufacturing (4 credits)
- **ISE6684 Computer-Integrated Manuf** Computer-Integrated Manufacturing Systems (4 credits)
- **ME5701 Manufacturing Processes** Manufacturing Processes (4 credits)
- **ME5350 Mech Comp-Aided Engineering** Mechanical Computer-Aided Engineering (4 credits)

Manufacturing System Modeling and Analysis

Choose one course from the following:

- **ISE5469 Cmptr Sim Discrete Event Sys** Computer Simulation of Discrete Event Systems (4 credits)
- **ISE5581 Lean Principles & Applications** Lean Principles and Application (4 credits)
- **ISE5485 Statistical Quality Analysis** Statistical Quality Analysis (4 credits)

Broader Concepts

Choose one course from the following:

- **ISE5487 Foundations of Systems Engr** Foundations of Systems Engineering (4 credits)
- **ISE5488 Advanced Systems EngineeringI** Advanced Systems Engineering (4 credits)
- **ISE5540 Occupational Biomechanics** Occupational Biomechanics (4 credits)
- **ISE5410 Supply Chain Modeling/Analysis** Supply Chain Modeling and Analysis (4 credits)

Depth Area Courses (8 credits)

Select 8 credits from one of the following four depth areas

Digital Twins

Required course:

- **ISE5472 Digital Twins in Smart Mfg Digital Twins in Smart Manufacturing (4 credits)**

Choose four credits from the following:

- **ISE5560 Product Lifecycle Management Product Lifecycle Management (4 credits)**
- **ISE5462 PLM Apps - Robotic Systems ISE 5462 - PLM Applications - Robotic Systems (2 credits)**
- **ISE5463 PLM Apps - Ergonomics Ergonomics (2 credits)**
- **ISE5466 PLM Apps - Change Mgt Change Management (2 credits)**
- **ISE5467 PLM Apps Throughput Simulation Throughput Simulation (2 credits)**
- **ISE5461 PLM Apps - Product Data Mgmt Product Data Management (2 credits)**

Artificial Intelligence

Required course:

- **ISE5512 Artificial Intell in Mfg Artificial Intelligence in Manufacturing (4 credits)**

Choose one course from the following:

- **ISE5435 Data Analytics Data Analytics (4 credits)**
- **ME5310 Machine Learning Engineering D Machine Learning Engineering Design (4 credits)**
- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**

ISE5483 Prod Systems/Workflow Analysis Production Systems and Workflow Analysis (4 credits)

AR/VR Applications

Required course:

- **ISE5442 Virtual and Augmented Reality Virtual and Augmented Reality (4 credits)**

Choose one course from the following:

- **ISE5443 Automotive User Experience Automotive User Experience (4 credits)**
- **ISE5473 Mixed Reality Apps in Mfg Mixed Reality Applications in Manufacturing (4 credits)**
- **CSI6550 Advanced Visual Computing Advanced Visual Computing (4 credits)**
- **ECE5510 Machine Vision Machine Vision (4 credits)**

Collaborative Robots

Required course:

- **ISE5471 Collab Robots & Flex Auto Collaborative Robots and Flexible Automation (4 credits)**

Choose one course from the following:

- **ISE5422 Robotic Systems Robotic Systems (4 credits)**
- **ISE5423 Industrial Automation Systems Industrial Automation Systems (4 credits)**
- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)**

General Electives (8 credits)

Select 8 credits of 5000- and/or 6000-level courses from the disciplines of ISE (excluding ISE 5001, 5002, and 5003), SYS, ECE, ME, or CSE (excluding CSE 5005, 5006, 5007, and 5008).

Note that the satisfaction of the prerequisites for any given course on this list may depend upon the engineering discipline of the student's B.S. degree.

-OR-

Thesis (8 credits)

Although the Smart Manufacturing master's degree requirements may be satisfied by taking only coursework, a master's thesis (ISE 6998) may be included as part of the program in place of general elective courses. Students electing a thesis option must accumulate 8 credits of ISE 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the Department of Industrial and Systems Engineering. The selection of the committee and the plan of study must be approved by the ISE Department chair.

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **Good Academic Standing** a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Bioengineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Bioengineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Bioengineering

Credit Total

32

Delivery Method Required

In person

Summer Semesters

0

Requirements

Program Requirements

Department of Bioengineering

Dodge Hall, Room 159 (map)

(248) 370-2875 • Fax (248) 370-4633 [BE5110 Medical Imaging](mailto:BE5110@oakland.edu)

Department Chair

Shailesh Lal, Ph.D.

(248)370-2875

lal@oakland.edu

www.oakland.edu/ece/

Program Description

The Master of Science in Bioengineering program is designed to synergistically pair advanced coursework in biological sciences and engineering to prepare students for the evolving bioengineering needs in research and industry. The comprehensive graduate curriculum offers extensive coursework in quantitative physiology and advanced mathematics as well as advanced interdisciplinary courses in such key areas of bioengineering as biomedical imaging and signal processing, bioinformatics and genome engineering, and molecular and tissue engineering. The Master of Science in Bioengineering graduates have diverse career opportunities in biotechnology, healthcare and medical technology.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), July 15 (late) for fall semester

- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Requirements for recommendations:
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Bachelor of Science in bioengineering or biomedical engineering. Applicants from other disciplines will be considered after successfully completing appropriate prerequisite courses.
 - Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
 - If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered.
 - Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Core: Degree Requirements

To fulfill the requirements for a Master of Science in Bioengineering degree, a student must:

Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science and/or the College of Arts and Sciences (CAS).

- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree.

- Complete the requirements specified for the program in bioengineering..
- Satisfy all requirements concerning academic progress.

Students have two options to complete their depth coursework:

- **Professional Track.** This track requires coursework only, which may include an independent study (**BE 5970**).
- **Research Track.** This track requires a research thesis under the supervision of a faculty advisor. The scope of the research topic for the thesis should be defined in such a way that a full-time student could complete the requirements for a master's degree in 24 months or 6 semesters following the completion of course work by regularly scheduling graduate research credits. Completion of a Master's Thesis requires 8 credits of **BE6998 Master's Thesis Research**. Up to 16 credits of **BE6998 Master's Thesis Research** may be included with approval from the thesis committee.

Core: Course Requirements

Core: a. Core requirements (8 credits)

Required course:

- **BE5000 Principles of Bioengineering Principles of Bioengineering (4 credits)**

Choose one course from the following:

- **APM5441 Math Analysis For Engineers I Mathematical Analysis for Engineers I (4 credits)**
- **APM5442 Math Analysis For Engineers II Mathematical Analysis for Engineers II (4 credits)**
- **ECE5404 Linear Systems and Control Linear Systems and Control (4 credits)**
- **ECE5206 Random Signals & Processes Random Signals and Processes (4 credits)**
- **ME5400 Numerical Methods/Mech Engr Numerical Methods for Mechanical Engineering (4 credits)**

Core: b. Depth area options (16 credits)

Research Track:

Students must complete a master's thesis (8-16 credits) and complete the remaining credits from the depth areas below (0-8 credits). 8 credits total of **BE6998 Master's Thesis Research** are required for a Master's thesis. Up to 16 credits of **BE6998 Master's Thesis Research** may be included with approval from the thesis committee. **BE6998 Master's Thesis Research Master's Thesis Research (1 to 8)**

Professional Track:

Students must choose 16 credits from the list below. It is recommended, but not required, that students select at least 3 courses from the same area to establish a depth of knowledge.

1. Biomedical Imaging and Signal Processing

- BE5100 BioMed Signal Processing Biomedical Signal Processing (4 credits) *
- BE5110 Medical Imaging Medical Imaging (4 credits) *
- BE5120 Medical Image Analysis Medical Image Analysis (4 credits) *
- BE5130 Ultrasound & Photoacoustic Ima Ultrasound and Photoacoustic Imaging (4 credits)
- BE5140 AI in Medicine Artificial Intelligence in Medicine (4 credits)
- BE5150 Medical Sensing and Design Medical Sensing and Design (4 credits)
- BE5600 Intro to Neural Engineering Introduction to Neural Engineering (4 credits)
- ECE5140 Instrumentation & Measurements Instrumentation and Measurements (4 credits)
- ECE5206 Random Signals & Processes Random Signals and Processes (4 credits)
- CSI5550 Visual Computing Visual Computing (4 credits)
- CSI6550 Advanced Visual Computing Advanced Visual Computing (4 credits)
- PHY5450 Physics of NMR and MRI Physics of NMR and MRI (4 credits)

2. Bioinformatics and Genome Engineering

- BE5140 AI in Medicine Artificial Intelligence in Medicine (4 credits)
- BE5200 Genetic and Genomic Eng Genetic and Genomic Engineering (4 credits) *
- BIO5388 Design/Analysis Bio Expts Design and Analysis of Biological Experiments (4 credits) *
- BIO5400 Advanced Genetics Advanced Genetics (4 credits) *
- BIO5412 Functional Genomics Bioinforma Functional Genomics and Bioinformatics (4 credits) *
- CSI5450 Database Systems I Database Systems I (4 credits) *
- CSI5780 Bioinformatics Bioinformatics (4 credits) *
- CSI5170 Machine Learning Machine Learning (4 credits) *
- or-
- ME6700 Machining Processes Machining Processes (4 credits)

3. Molecular and Tissue Engineering

- BE5300 Bioprocess Engineering Bioprocess Engineering (4 credits) *
- BE5400 Tissue Engineering Tissue Engineering (4 credits) *
- BIO5256 Adv Tp: Cellular/Biochem/Metab Advanced Topics in Cellular Biochemistry and Metabolism (4 credits)
- BIO5388 Design/Analysis Bio Expts Design and Analysis of Biological Experiments (4 credits) *
- BIO5550 Microbial Biotechnology Microbial Biotechnology (4 credits) *
- ME5210 Analysis/Design of Mech Struct Analysis and Design of Mechanical Structures (4 credits) *

C. Electives (8 credits)

Choose two courses from the following:

- BE5500 Musculoskeletal Biomechanics Musculoskeletal Biomechanics (4 credits)
- CSI5460 Information Security Information Security (4 credits) *
- CSI5480 Information Security Practice Information Security Practices (4 credits) *
- ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits) *
- ECE5551 Human Robot Interaction Human Robot Interaction (4 credits) *
- ISE5441 Human Factors Engineering Human Factors Engineering (4 credits) *
- ISE5485 Statistical Quality Analysis Statistical Quality Analysis (4 credits) *
- ISE5540 Occupational Biomechanics Occupational Biomechanics (4 credits)
- ISE5574 Healthcare Informatics Healthcare Informatics (4 credits)
- ME5515 Comp Fluid Dynamics Computational Fluid Dynamics (4 credits)
- ME5600 Materials Prop and Processes Material Properties and Processes (4 credits) *
- ME5610 Polymeric Materials Polymeric Materials (4 credits) *
- PHY5250 Radiation Biophysics Radiation Biophysics (4 credits)

D. Research Track Exit (8 credits)

May NOT exceed a maximum of 16 credits.

- **BE6998 Master's Thesis Research Master's Thesis Research (1 to 8 credits)**

Good Academic Standing

All graduate students are expected to remain in good academic standing throughout the entire course of their graduate program. To be in **good Academic Standing**, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Artificial Intelligence

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Artificial Intelligence	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<https://www.cse.secs.oakland.edu/>

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description

Students will engage in an extensive core intended to develop depth in all the core concepts that build a foundation for artificial intelligence theory and practice. Also, they will be given the opportunity to build on the core knowledge of AI by taking a variety of elective courses to explore key contextual areas or more complex technical AI applications.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester

- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**

Recommendation for Graduate Admission form:

Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.

Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:

- Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
- Bachelor of Science in computer science, information technology, software engineering, computer engineering, or equivalent. Applicants from other disciplines would be considered after successfully completing appropriate prerequisite courses.
 - Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
 - If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
 - Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Prerequisite Courses

Regular admission to the program requires a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field earned with an average of B (or better) from an accredited program. An entering student should have completed one course in probability and statistics, one course in programming, and one course in Calculus II. A course in Calculus III and a course in linear algebra are recommended but not required.

Deficiencies in the required prerequisite courses must be made up completed with a grade of "B" or better before entrance into the graduate program. Industry experience in programming/algorithms and computing can be considered as part of the admission evaluation process, and an interview can be conducted with the applicant to check their credentials. The evidence for these credentials includes non-credit or for-credit certificates or industry experience in programming/algorithms, which will be verified and assessed during an interview. Oakland University offers a non-credit certificate in the Foundations of Programming & Algorithms that is also an acceptable substitute for recommended preparatory courses prior to admission.

Degree Requirements

The Master of Science in Artificial Intelligence degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements

1. Research Track (32 credits)

The research track requires 32 credits, including 4-8 credits of thesis to graduate. The structure of credits is as follows:

a. Core Requirements (12 credits)

Required courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

Choose one course from the following:

- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**

b. Concentration requirement (12 credits)

The student must declare/select only one concentration area, and take one required core course from the concentration area, and select 2 other courses from the declared concentration area:

Edge AI and IoT Concentration

Required course:

CSI5110 Foundations of Edge AI Foundations of Edge AI (4 credits)

Choose two courses from the following:

- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5470 Computer Networks Computer Networks (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5230 Android Application Development Mobile and Smart Phone Application Development (4 credits)**
- **ECE6212 Wireless Communications Wireless Communications (4 credits)**

Embedded AI Concentration

Required course:

ECE 5900 - ST: Embedded Artificial Intelligence (4 credits)

Choose two courses from the following:

- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE5720 Microproc-Based Sys Design Microprocessor-Based Systems Design (4 credits)**
- **ECE5731 Fund of Embedded Sys Design Fundamentals of Embedded System Design (4 credits)**
- **ECE5770 GPU Accelerated Computing GPU Accelerated Computing (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**
- **ECE6712 Parallel Embed Comp Architect Parallel Embedded Computer Architecture (4 credits)**
- **ECE6742 DSP in Embedded Systems DSP in Embedded Systems (4 credits)**
- **CSI5360 Concurrent/Multi-Core Prgmng Concurrent and Multi-Core Programming (4 credits)**

- CSI5420 Rapid Proto & Component Software Rapid Prototyping and Component Software (4 credits)

Human-Centered AI, Autonomous systems and Robotics Concentration

Required course:

CSI 5900 - ST: AI-Human Interaction (4 credits)

Choose two courses from the following:

- CSI5550 Visual Computing Visual Computing (4 credits)
- **SYS 5900 - ST: Automotive User Experience (4 credits)**
- CSI6550 Advanced Visual Computing Advanced Visual Computing (4 credits)
- CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)
- ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits)
- ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)
- ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)
- ECE6440 Adaptive Control Systems Adaptive Control Systems (4 credits)
- ECE6460 Autonomous Vehicle Systems II Autonomous Vehicle Systems II (4 credits)
- **ECE 6467 - Dynamics and Control of Robot Manipulators (4 credits)**
- ISE5422 Robotic Systems Robotic Systems (4 credits)
- ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)
- CSI5180 Natural Language Processing Natural Language Processing (4 credits)

Machine Learning Concentration

Required course:

CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)

Choose two courses from the following:

- CSI5810 Info Retrieval/Knowledge Discovery Information Retrieval and Knowledge Discovery (4 credits)
- ME5310 Machine Learning Engineering D Machine Learning Engineering Design (4 credits)
- ISE5002 Engineering Operations Rsrch Engineering Operations Research (3 credits)
- ISE5430 EGR Ops Rsrch/Deterministic Engineering Operations Research - Deterministic Models (4 credits)

- ISE5431 Engr Ops Rsrch/Stochastic Models Engineering Operations Research - Stochastic Models (4 credits)

- ISE5517 Stats Methods in Engineering Statistical Methods in Engineering (4 credits)

- ME5434 Metamodeling Optimiz. Meth Dsg Metamodeling and Optimization Methods in Design (4 credits)

- CSI5180 Natural Language Processing Natural Language Processing (4 credits)

Smart Manufacturing, Machine Vision and Industry 4.0 Concentration

Required course:

ISE5512 Artificial Intell in Mfg Artificial Intelligence in Manufacturing (4 credits)

Choose two courses from the following:

- **SYS 5900 - ST: Virtual and Augmented Reality (4 credits)**
- CSI5240 Cloud Computing Cloud Computing (4 credits)
- CSI5460 Information Security Information Security (4 credits)
- ISE5422 Robotic Systems Robotic Systems (4 credits)
- ISE5456 Engineering Risk Analysis Engineering Risk Analysis (4 credits)
- ISE5464 Design Mfg/Assembly Analysis Design for Manufacturing and Assembly Analysis (4 credits)
- ISE5410 Supply Chain Modeling/Analysis Supply Chain Modeling and Analysis (4 credits)
- ISE5002 Engineering Operations Rsrch Engineering Operations Research (3 credits)
- ISE5517 Stats Methods in Engineering Statistical Methods in Engineering (4 credits)
- CSI5550 Visual Computing Visual Computing (4 credits)

Artificial Intelligence for IT Operations (AIOps) Concentration

Required course:

CSI5150 AI for IT Operations AI for IT Operations (4 credits)

Choose two courses from the following:

- CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)
- CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)
- CSI5300 Software Prototypg/Validation Software Prototyping and Validation (4 credits)
- CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)
- CSI5390 Software Engineering Software Engineering (4 credits)

- **CSI5410 Software Proj Plan/Mgmt/Maint Software Project Planning, Management and Maintenance (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**

AI for Cyber Security and Trustworthy AI Concentration

Required course:

CSI5580 AI for Cybersecurity & Privacy AI for Cybersecurity & Privacy (4 credits)

Choose two courses from the following:

- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5480 Information Security Practice Information Security Practices (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**

Augmented/Virtual Reality Concentration

Required course:

SYS 5900 - ST: Virtual and Augmented Reality (4 credits)

Choose two courses from the following:

- **SYS 5900 - ST: Automotive User Experience (4 credits)**
- **CSI 5900 - ST: AI-Human Interaction (4 credits)**
- **CSI5550 Visual Computing Visual Computing (4 credits)**
- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)**

Ethics of AI Concentration

- Required courses:
- **CSI5100 Ethics & Bias in AI CSI 5100 - Ethics & Bias in AI (4 credits)**
- **CSI 5900 - ST: AI-Human Interaction (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**

c. Electives (8 credits)

Students on a research track must complete 8 credits from the following Elective Group courses:

- **CSI6998 Master's Thesis Research Master's Thesis Research (2 to 8 credits) OR CSI 7970 - Project/Independent Study (4 to 8 credits)**

- **CSI7995 Research Methodology in CS Research Methodology in Computer Science (2 credits)**
- **CSI7940 Research Seminar in CS Research Seminar in Computer Science (2 credits)**

2. Professional track (32 credits)

The professional track requires 32 credits of graduate coursework. The structure of credits is as follows.

a. Core requirement (12 credits)

Required courses:

- **CSI5130 Artificial Intelligence Artificial Intelligence (4 credits)**
- **CSI5170 Machine Learning Machine Learning (4 credits)**

Choose one course from the following:

- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**

b. Concentration requirement (12 credits)

The student must declare/select only one concentration area, and take one required core course from the concentration area, and select 2 other courses from the declared concentration area:

Edge AI and IoT Concentration

Required course:

CSI5110 Foundations of Edge AI Foundations of Edge AI (4 credits)

Choose two courses from the following:

- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5230 Android Application Developmen Mobile and Smart Phone Application Development (4 credits)**
- **ECE6212 Wireless Communications Wireless Communications (4 credits)**

Embedded AI Concentration

Required course:

ECE 5900 - ST: Embedded Artificial Intelligence (4 credits)

Choose two courses from the following:

- [CSI5110 Foundations of Edge AI](#) Foundations of Edge AI (4 credits)
- [ECE5520 Automotive Mechatronics I](#) Automotive Mechatronics I (4 credits)
- [ECE5720 Microproc-Based Sys Design](#) Microprocessor-Based Systems Design (4 credits)
- [ECE5731 Fund of Embedded Sys Design](#) Fundamentals of Embedded System Design (4 credits)
- [ECE5770 GPU Accelerated Computing](#) GPU Accelerated Computing (4 credits)
- [ECE6410 Intelligent Control Systems](#) Intelligent Control Systems (4 credits)
- [ECE6520 Automotive Mechatronics II](#) Automotive Mechatronics II (4 credits)
- [ECE6712 Parallel Embed Comp Architec](#) Parallel Embedded Computer Architecture (4 credits)
- [ECE6742 DSP in Embedded Systems](#) DSP in Embedded Systems (4 credits)
- [ECE6745 Real-Time Computing Systems](#) Real-Time Computing Systems (4 credits)
- [CSI5360 Concurrent/Multi-Core Prgmng](#) Concurrent and Multi-Core Programming (4 credits)
- [CSI5420 Rapid Proto & Compont Software](#) Rapid Prototyping and Component Software (4 credits)

Human-Centered AI, Autonomous systems and Robotics Concentration

Required course:

CSI 5900 - ST: AI-Human Interaction (4 credits)

Choose two courses from the following:

- [CSI5550 Visual Computing](#) Visual Computing (4 credits)
- **SYS 5900 - ST: Automotive User Experience (4 credits)**
- [CSI6550 Advanced Visual Computing](#) Advanced Visual Computing (4 credits)
- [CSI5140 Deep Learning and Applications](#) Deep Learning and Applications (4 credits)
- [ECE5500 Robotic Systems and Control](#) Robotic Systems and Control (4 credits)
- [ECE5532 Autonomous Vehicle Systems I](#) Autonomous Vehicle Systems I (4 credits)
- [ECE6410 Intelligent Control Systems](#) Intelligent Control Systems (4 credits)
- [ECE6440 Adaptive Control Systems](#) Adaptive Control Systems (4 credits)

- [ECE6460 Autonomous Vehicle Systems II](#) Autonomous Vehicle Systems II (4 credits)
- [ECE 6467 - Dynamics and Control of Robot Manipulators](#) (4 credits)
- [ISE5422 Robotic Systems](#) Robotic Systems (4 credits)
- [ECE5551 Human Robot Interaction](#) Human Robot Interaction (4 credits)
- [CSI5180 Natural Language Processing](#) Natural Language Processing (4 credits)

Machine Learning Concentration

- Required course:

[CSI5140 Deep Learning and Applications](#) Deep Learning and Applications (4 credits)

Choose two courses from the following:

- [CSI5810 Info Retrieval/Knowldg Discov](#) Information Retrieval and Knowledge Discovery (4 credits)
- [ME5310 Machine Learning Engineering D](#) Machine Learning Engineering Design (4 credits)
- [ISE5002 Engineering Operations Rsrch](#) Engineering Operations Research (3 credits)
- [ISE5430 EGR Ops Rsrch/Deterministic](#) Engineering Operations Research - Deterministic Models (4 credits)
- [ISE5431 Engr Ops Rsrch/Stochastic Mods](#) Engineering Operations Research - Stochastic Models (4 credits)
- [ISE5517 Stats Methods in Engineering](#) Statistical Methods in Engineering (4 credits)
- [ME5434 Metamodeling Optimiz. Meth Dsg](#) Metamodeling and Optimization Methods in Design (4 credits)
- [CSI5180 Natural Language Processing](#) Natural Language Processing (4 credits)

Smart Manufacturing, Machine Vision and Industry 4.0 Concentration

- Required course:

[ISE5512 Artificial Intell in Mfg](#) Artificial Intelligence in Manufacturing (4 credits)

Choose two courses from the following:

- [SYS5900 Special Topics ST: Virtual and Augmented Reality](#) (4 credits)
- [CSI5240 Cloud Computing](#) Cloud Computing (4 credits)
- [CSI5460 Information Security](#) Information Security (4 credits)
- [ISE5422 Robotic Systems](#) Robotic Systems (4 credits)
- [ISE5456 Engineering Risk Analysis](#) Engineering Risk Analysis (4 credits)

- **ISE5464 Design Mfg/Assembly Analysis Design for Manufacturing and Assembly Analysis (4 credits)**
- **ISE5410 Supply Chain Modeling/Analysis Supply Chain Modeling and Analysis (4 credits)**
- **ISE5002 Engineering Operations Rsrch Engineering Operations Research (3 credits)**
- **ISE5517 Stats Methods in Engineering Statistical Methods in Engineering (4 credits)**
- **CSI5550 Visual Computing CSI 5550 - Visual Computing (4 credits)**

Artificial Intelligence for IT Operations (AIOps) Concentration

Required course:

CSI5150 AI for IT Operations AI for IT Operations (4 credits)

Choose two courses from the following:

- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5300 Software Prototypg/Validation Software Prototyping and Validation (4 credits)**
- **CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5410 Software Proj Plan/Mgmt/Maint Software Project Planning, Management and Maintenance (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**

AI for Cyber Security and Trustworthy AI Concentration

Required course:

CSI5580 AI for Cybersecurity & Privacy AI for Cybersecurity & Privacy (4 credits)

Choose two courses from the following:

- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5480 Information Security Practice Information Security Practices (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**

Augmented/Virtual Reality Concentration

Required course:

SYS 5900 - ST: Virtual and Augmented Reality (4 credits)

Choose two courses from the following:

- **SYS 5900 - ST: Automotive User Experience (4 credits)**
- **CSI 5900 - ST: AI-Human Interaction (4 credits)**
- **CSI5550 Visual Computing Visual Computing (4 credits)**
- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits)**

Ethics of AI Concentration

Required course:

CSI5100 Ethics & Bias in AI Ethics & Bias in AI (4 credits)

Choose two courses from the following:

- **CSI 5900 - ST: AI-Human Interaction (4 credits)**
- **CSI5140 Deep Learning and Applications Deep Learning and Applications (4 credits)**
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**

c. Electives (8 credits)

Elective courses may be chosen from the list of courses in any concentration area in the degree program.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree

- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, a master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits. No more than 8 thesis or project credits may be used toward the degree requirements.

Course Credit

Normally, graduate credit is awarded only for courses numbered 5000 or higher. However, up to 4 credits of Oakland University senior-level (4000-4999) courses in the major can be approved for graduate credit by the student's adviser. With the added approval of the graduate committee of the school, an additional 4 credits of senior-level courses can also be counted toward the required credits for the degree. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of a cross-listed senior/graduate course cannot receive credit toward a graduate degree for the 5000-level version of that course.

Transfer Credit

Students transferring from other institutions are allowed to transfer a maximum of 9 credits of graduate coursework with the approval of the department.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, most courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**CSI6996 Graduate CSE Project**) or a directed master's thesis research (**CSI6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Students electing a thesis option must accumulate a minimum of 8 credits of CSI 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (**see Thesis and Dissertation**).

At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechanical Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Mechanical Engineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Mechanical Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Mechanical Engineering

402 Engineering Center ([map](#))

(248) 370-2210 • Fax (248) 370-4416

<http://www.oakland.edu/secs/me>

Coordinator

Laila Guessous

402C Engineering Center

guessous@oakland.edu

Program Description

The Master of Science in mechanical engineering degree program is designed to prepare students for advanced-level engineering-related careers in industry as well as for further graduate study.

Admission is open to students with a bachelor's degree in mechanical engineering. A degree in other fields of engineering, science, and mathematics may be considered as a basis for admission, but remedial coursework may be required to overcome deficiencies.

The program offers the following five concentrations:

1. Solid and structural mechanics
2. Energy, fluid, and thermal systems
3. Manufacturing processes
4. Automotive engineering
5. Dynamic Systems and Control

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science in mechanical engineering or equivalent. A bachelor's degree in physics, mathematics or other field of science may be acceptable, but a student presenting such a degree should plan to spend additional time in residence to gain proficiency in the fundamentals of engineering.

- Admission to master's study is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science degree in mechanical engineering, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science.
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree.
- Complete the requirements specified for the program in mechanical engineering.
- Satisfy all requirements concerning academic progress.

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project (**ME6996 Graduate Engineering Project**) or master's thesis research (**ME6998 Master's Thesis Research**) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to consider such an experience as their program permits.

Course Requirements (32 credits)

a. Theory Courses (4 credits)

Students must take at least one theory course before completing 12 credits of their MS coursework.

Choose one course from the following:

- **APM5441 Math Analysis For Engineers I** Mathematical Analysis for Engineers I (4 credits)

- [APM5442 Math Analysis For Engineers II](#) Mathematical Analysis for Engineers II (4 credits)
- [ME5400 Numerical Methods/Mech Engr](#) Numerical Methods for Mechanical Engineering (4 credits)

b. Depth Options (16 credits)

Select either one of the five depth options described below or the General Mechanical Engineering option:

1. Solid and Structural Mechanics Depth

Choose four courses from the following:

- [ME5200 Dynamics](#) Dynamics (4 credits)
- [ME5205 Powertrain Control and Diag](#) Controls and Diagnostics of Automotive Systems (4 credits) *
- [ME5210 Analysis/Design of Mech Struct](#) Analysis and Design of Mechanical Structures (4 credits) *
- [ME5220 Mechanical Vibrations](#) Mechanical Vibrations (4 credits)
- [ME5260 Acoustics and Noise Control](#) Acoustics and Noise Control (4 credits) *
- [ME5310 Machine Learning Engineering D](#) Machine Learning Engineering Design (4 credits)
- [ME5350 Mech Comp-Aided Engineering](#) Mechanical Computer-Aided Engineering (4 credits) *
- [ME5434 Metamodeling Optimiz. Meth Dsg](#) Metamodeling and Optimization Methods in Design (4 credits) *
- [ME5630 Experimental Stress Analysis](#) Experimental Stress Analysis (4 credits)
- [ME5750 Optical Measurement &Qlty Insp](#) Optical Measurement and Quality Inspection (4 credits) *
- [ME6215 Noise, Vibration and Harshness](#) Noise, Vibration and Harshness (4 credits)
- [ME6225 Random Vibrations](#) Random Vibrations (4 credits)
- [ME6230 Kinematics and Mechanisms](#) Kinematics and Mechanisms (4 credits)
- [ME6240 Mechanics of Metal Forming](#) Mechanics of Metal Forming (4 credits)
- [ME6410 Finite Elements](#) Finite Elements (4 credits)
- [ME6610 Mechanics of Composite Material](#) Mechanics of Composite Materials (4 credits)
- [ME6620 Theory of Plasticity](#) Theory of Plasticity (4 credits)
- [ME6630 Applied Elasticity](#) Applied Elasticity (4 credits)
- [ME6660 Fatigue Analysis and Design](#) Fatigue Analysis and Design (4 credits)

- [ME6730 Advanced Material Joining](#) Advanced Material Joining (4 credits)
- [ME6750 Optical Meth Experimental Mech](#) Optical Methods in Experimental Mechanics (4 credits)
- [ME7210 Vibration Analysis](#) Vibration Analysis (4 credits)
- [ME7220 Nonlinear Vibrations](#) Nonlinear Vibrations (4 credits)
- [ME7410 Advanced Finite Elements](#) Advanced Finite Elements (4 credits)

2. Energy, Fluid and Thermal Systems Depth

Choose four courses from the following:

- [ME5510 Intermediate Fluid Mechanics](#) Intermediate Fluid Mechanics (4 credits) *
- [ME5515 Comp Fluid Dynamics](#) Computational Fluid Dynamics (4 credits)
- [ME5520 Intermediate Heat Transfer](#) Intermediate Heat Transfer (4 credits) *
- [ME5525 Fuel Cell Science and Technolo](#) Fuel Cell Science and Technology (4 credits) *
- [ME5530 Renewable Energy](#) Renewable Energy (4 credits)
- [ME5535 Introduction to Electric Drive](#) Introduction to Electric Drive Vehicle Engineering (4 credits) *
- [ME5540 Internal Combustion Engines I](#) Internal Combustion Engines I (4 credits) *
- [ME5545 Fundamentals of Battery System](#) Fundamentals of Battery Systems Hybrid and Elec Vehicles (4 credits) *
- [ME5550 Fluid and Thermal Energy Sys](#) Fluid and Thermal Energy Systems (4 credits) *
- [ME5560 Combustion Processes](#) Combustion Processes (4 credits)
- [ME5570 Sustainable Design For Built E](#) Sustainable Design for the Built Environment (4 credits) *
- [ME5590 Energy & Sustainability Eng Se](#) Energy and Sustainability Engineering Seminar and Practice (4 credits) *
- [ME5580 Fundamentals/Nuclear Engr](#) Fundamentals of Nuclear Engineering (3 credits) *
- [ME5585 Nuclear Reactors/Power Plants](#) Nuclear Reactors and Power Plants (3 credits) *
- [ME6510 Convective Transport Phenomena](#) Convective Transport Phenomena (4 credits)
- [ME6520 Thermal Transport Phenomena](#) Thermal Transport Phenomena (4 credits)
- [ME7510 Gas Dynamics](#) Gas Dynamics (4 credits)

3. Manufacturing Processes Depth

Choose four courses from the following:

- **ME5600 Materials Prop and Processes** Material Properties and Processes (4 credits) *
- **ME5610 Polymeric Materials** Polymeric Materials (4 credits) *
- **ME5620 Plastics Product Design** Plastics Product Design (4 credits) *
- **ME5701 Manufacturing Processes** Manufacturing Processes (4 credits) *
- **ME5702 Plastics Processing Engineerin** Plastics Processing Engineering (4 credits)
- **ME5710 Lubrication, Friction and Wear** Lubrication, Friction and Wear (4 credits) *
- **ME5730 Fasteners and Bolted Joints** Fasteners and Bolted Joints (4 credits) *
- **ME5750 Optical Measurement & Qlty Insp** Optical Measurement and Quality Inspection (4 credits) *
- **ME5761 Sheet Metal Forming Processes** Sheet Metal Forming Processes (4 credits)
- **ME6240 Mechanics of Metal Forming** Mechanics of Metal Forming (4 credits)
- **ME6250 Advanced Metal Forming** Advanced Metal Forming (4 credits)
- **ME6310 Reliability Methods/Eng Design** Reliability Methods in Engineering Design (4 credits)
- **ME6610 Mechanics of Composite Material** Mechanics of Composite Materials (4 credits)
- **ME6700 Machining Processes** Machining Processes (4 credits)
- **ME6710 Advanced Tribology** Advanced Tribology (4 credits)
- **ME6730 Advanced Material Joining** Advanced Material Joining (4 credits)
- **ME7730 Adv Fasteners & Bolted Joints** Advanced Fasteners and Bolted Joints (4 credits)

4. Automotive Engineering Depth

Choose four courses from the following:

- **ME5200 Dynamics** Dynamics (4 credits)
- **ME5205 Powertrain Control and Diag** Controls and Diagnostics of Automotive Systems (4 credits) *
- **ME5210 Analysis/Design of Mech Struct** Analysis and Design of Mechanical Structures (4 credits) *
- **ME5220 Mechanical Vibrations** Mechanical Vibrations (4 credits)

- **ME5230 Automotive Driveline Dynamics** Automotive Driveline Dynamics (4 credits) *
- **ME5240 Automotive Chassis Systems** Automotive Chassis Systems (4 credits)
- **ME6220 Vibration & Sound Measurements** Acoustics and Noise Control (4 credits) *
- **ME5310 Machine Learning Engineering D** Machine Learning Engineering Design (4 credits)
- **ME5350 Mech Comp-Aided Engineering** Mechanical Computer-Aided Engineering (4 credits) *
- **ME5434 Metamodeling Optimiz. Meth Dsg** Metamodeling and Optimization Methods in Design (4 credits) *
- **ME5510 Intermediate Fluid Mechanics** Intermediate Fluid Mechanics (4 credits) *
- **ME5515 Comp Fluid Dynamics** Computational Fluid Dynamics (4 credits)
- **ME5520 Intermediate Heat Transfer** Intermediate Heat Transfer (4 credits) *
- **ME5525 Fuel Cell Science and Technolo** Fuel Cell Science and Technology (4 credits) *
- **ME5535 Introduction to Electric Drive** Introduction to Electric Drive Vehicle Engineering (4 credits) *
- **ME5540 Internal Combustion Engines I** Internal Combustion Engines I (4 credits) *
- **ME5545 Fundamentals of Battery System** Fundamentals of Battery Systems Hybrid and Elec Vehicles (4 credits) *
- **ME5560 Combustion Processes** Combustion Processes (4 credits)
- **ME5600 Materials Prop and Processes** Material Properties and Processes (4 credits) *
- **ME5630 Experimental Stress Analysis** Experimental Stress Analysis (4 credits)
- **ME5710 Lubrication, Friction and Wear** Lubrication, Friction and Wear (4 credits) *
- **ME5730 Fasteners and Bolted Joints** Fasteners and Bolted Joints (4 credits) *
- **ME5761 Sheet Metal Forming Processes** Sheet Metal Forming Processes (4 credits)
- **ME6215 Noise, Vibration and Harshness** Noise, Vibration and Harshness (4 credits)
- **ME6220 Vibration & Sound Measurements** Vibration and Sound Measurements (4 credits)
- **ME6225 Random Vibrations** Random Vibrations (4 credits)
- **ME6230 Kinematics and Mechanisms** Kinematics and Mechanisms (4 credits)

- **ME6340 Automotive Engineer Design II** Automotive Engineering Design II (4 credits)
- **ME6540 Internal Combustion Engines II** Internal Combustion Engines II (4 credits)
- **ME6585 Adv Auto Propulsion Systems** Advanced Automotive Propulsion Systems (4 credits)
- **ME6650 Advanced Battery Materials** Advanced Battery Materials (4 credits)
- **ME6660 Fatigue Analysis and Design** Fatigue Analysis and Design (4 credits)
- **ME6730 Advanced Material Joining** Advanced Material Joining (4 credits)
- **ME6750 Optical Meth Experimental Mech** Optical Methods in Experimental Mechanics (4 credits)
- **ME7210 Vibration Analysis** Vibration Analysis (4 credits)
- **ME7220 Nonlinear Vibrations** Nonlinear Vibrations (4 credits)
- **ME7730 Adv Fasteners & Bolted Joints** Advanced Fasteners and Bolted Joints (4 credits)

5. Dynamic Systems and Control Depth

Choose four courses from the following:

- **ECE5404 Linear Systems and Control** Linear Systems and Control (4 credits)
- **ECE5415 Microcomp-Based Control Sys** Microcomputer-Based Control Systems (4 credits)
- **ME5200 Dynamics** Dynamics (4 credits)
- **ME5205 Powertrain Control and Diag** Powertrain Control & Diagnostics (4 credits)
- **ME5206 Intelligent Vehicle Control Sy** Intelligent Vehicle Control Systems (4 credits)
- **ME5220 Mechanical Vibrations** Mechanical Vibrations (4 credits)
- **ME5230 Automotive Driveline Dynamics** Automotive Driveline Dynamics (4 credits)
- **ME5240 Automotive Chassis Systems** Automotive Chassis Systems (4 credits)
- **ME5260 Acoustics and Noise Control** Acoustics and Noise Control (4 credits)
- **ME5310 Machine Learning Engineering D** Machine Learning Engineering Design (4 credits)
- **ME5434 Metamodeling Optimiz. Meth Dsg** Metamodeling and Optimization Methods in Design (4 credits)
- **ME5540 Internal Combustion Engines I** Internal Combustion Engines I (4 credits)

- **ME6215 Noise, Vibration and Harshness** Noise, Vibration and Harshness (4 credits)
- **ME6220 Vibration & Sound Measurements** Vibration and Sound Measurements (4 credits)
- **ME6230 Kinematics and Mechanisms** Kinematics and Mechanisms (4 credits)
- **ME7210 Vibration Analysis** Vibration Analysis (4 credits)
- **ME7220 Nonlinear Vibrations** Nonlinear Vibrations (4 credits)

6. General Mechanical Engineering Option

Select one course from 4 of the concentration options 1-5 above.

c. Electives** (12 credits)

Select **one** of the options described below:

Master's Thesis Track:

- **ME6998 Master's Thesis Research**, Master's Thesis Research (8 credits), requires approval from thesis advisor.
- If additional electives are required, students may take any coursework-based courses in mechanical engineering at the 5000-level and above, or with approval, up to 4 credits from other engineering, math, and science departments.

Non-Thesis Track:

Any combination of the following courses:

- **ME6996 Graduate Engineering Project**, Graduate Engineering Project (4-8 credits), requires approval from project advisor.
- 8-14 credits of ME courses with level 5000 and above.
- With approval: **ME 6998**, Master's Thesis Research (8 credits).
- With approval: APM or MTH courses, **ME5970 Independent Study**, **ME5900 Special Topics**, **ME7900 Special Topics**.
- With approval: Up to **4 credits** may be selected from courses with level 5000 and above, not listed in one of the option depth areas, from other engineering and science departments.

Courses with Asterisks (*, **)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute graduate course.

** Other electives in engineering, mathematics, physics or chemistry that are appropriate to the student's Plan of Study require prior approval of the faculty adviser and the department chair.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0, or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to

dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project, or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Transfer Credit

Students transferring from institutions with which Oakland University has an articulation agreement containing alternative transfer credit arrangements will be admitted according to the criteria in that agreement.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**ME 6996**) or a directed master's thesis research (**ME6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Thesis research provides a unique and valuable learning experience in which an individual student works with a faculty adviser in an area of mutual interest. Students are strongly encouraged to include such an experience in their graduate studies.

Students electing a thesis option must accumulate a minimum of 8 credits of **ME6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechanical Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Mechanical Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Mechanical Engineering

Credit Total	Delivery Method	Required Summer Semesters
148	In Person	0

Requirements

Program Requirements

The combined Bachelor of Science in Engineering and Masters of Science in Mechanical Engineering program (Combined B.S.E./M.S.) option is designed for highly motivated and qualified students pursuing a Bachelor of Science of Engineering in at Oakland University and wishing to complete a Master of Science of Engineering in Mechanical Engineering directly following the completion of their undergraduate degree requirements.

This program allows students to replace their undergraduate professional elective courses and/or approved math/science elective with the following graduate-level courses. Students may select either a coursework only track and replace up to 8 total credits, or a thesis track and replace up to 12 total credits.

Coursework only track:

Select one of the following course options:

1. **APM5441 Math Analysis For Engineers I** (to replace the approved math/science elective) and any ME 5000-level or above course of the student's choosing, which meets both the M.S. and B.S.E. requirements as described in their respective catalogs: (B.S.E. in **Mechanical Engineering**) and (M.S. in **Mechanical Engineering**).
2. Any two ME 5000-level or above courses of the student's choosing, which meet both the M.S. and B.S.E. requirements as described in their respective catalogs: (B.S.E. in **Mechanical Engineering**) and (M.S. in **Mechanical Engineering**).

Thesis track:

1. One of following theory courses: **APM5441 Math Analysis For Engineers I** (to replace the approved math/science elective) or **ME5400 Numerical Methods/Mech Engr** (to replace a professional elective),
2. Master's Thesis Research: **ME6998 Master's Thesis Research** (4 credits), and
3. A 5000-level or above ME course of the student's choosing, which meets both the M.S. and B.S.E. requirements as described in their respective catalogs: (B.S.E. in **Mechanical Engineering**) and (M.S. in **Mechanical Engineering**)
4. The above graduate-level courses will count toward both the B.S.E. and the M.S. degree. A critical component of this thesis track is the completion of graduate-level research. This research work begins in the last year of the student's undergraduate studies and culminates in a Master's Thesis.

To be eligible for the Mechanical Engineering, Combined B.S.E./M.S. option, students must:

1. Have a major GPA of 3.5 or higher and an overall GPA of 3.2 or higher.
2. Apply for and receive delayed admission into the M.S. program after reaching junior standing (90 credit hours or more) before enrolling in any of the graduate-level courses.
3. Complete the two or three graduate-level courses that will count towards their M.S. and B.S.E. undergraduate professional elective courses and/or approved math/science elective with a grade of B or better.
4. For thesis-track students, complete a Master's Thesis under the supervision of a Mechanical Engineering Faculty member at Oakland University.

** Students admitted to this accelerated program can graduate with an M.S. degree in five years.*

To apply:

To apply to the Combined B.S.E./M.S. in Mechanical Engineering Program, select the "Combined B.S.E./M.S. program" option in the application for the Mechanical Engineering M.S. degree. For students on the thesis-track, indicate a thesis advisor or a research interest area on the application and upload your approved plan of study, which has been developed with your both your thesis and academic advisor. For non-thesis track students, upload a draft M.S. plan of study with your application. After admission to the program has been granted, undergraduate students should request an override to enroll in 5000-level or above courses either from the course instructor, an SECS adviser or the ME department (medept@oakland.edu).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Systems Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Systems Engineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Industrial/Systems Engineering

Credit Total

32

Delivery Method Required

Partially Online, Fully Online

Summer Semesters

0

Requirements

Program Requirements

Department of Industrial and Systems Engineering

502 Engineering Center ([map](#))

(248) 370-2989 • Fax (248) 370-4625

www.oakland.edu/ise

Coordinator

Vijitashwa Pandey

502B Engineering Center

(248) 370-2989

pandey2@oakland.edu

Program Description

Systems Engineering is an interdisciplinary approach and means to enable the realization of successful products and systems. The Systems Engineering M.S. educates engineers to serve as the primary interface between management, customers, suppliers, and specialty engineers in the systems development process. Note that where other engineering disciplines concentrate on the specifics of a system (electronics, mechanics, ergonometics, aerodynamics, software, etc.), Systems Engineers focus on the integration of all of these aspects as a coherent and effective system. Systems Engineers bring a particular perspective to the engineering process (such as requirements definition, top-level functional designs, project management, life cycle cost analysis, product lifecycle management) that serves to organize and coordinate other engineering activities. The program is open to engineers with a degree in any field of engineering.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. Graduate application requirements
2. **Additional department application requirements**
 - Requirements for recommendations:
 - Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The Department of Engineering may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's last degree is from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a

Request to Waive GRE

form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.

- Bachelor of Science in any engineering discipline. Bachelor of Science in physics, mathematics, or other fields of science may be acceptable, but a student

presenting such a degree should plan to spend additional time in residence to gain proficiency in the fundamentals of engineering.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants for whom the GRE is not waived, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree requirements

To fulfill the requirements for a Master of Science degree in Systems Engineering, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science.
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree.
- Complete the requirements specified for the program in systems engineering.
- Satisfy all requirements concerning academic progress.

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project (**SYS6996 Graduate Engineering Project**) or master's thesis research (**SYS6998 Master's Thesis Research**) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to include such an experience as their program permits.

A student must fulfill the program requirements for one of the options listed below to be awarded the Master of Science in Systems Engineering.

Course requirements (32 credits)

Theory course (4 credits)

Choose one course from the following:

- **SYS5402 System Optimization & Design Systems Optimization and Design (4 credits)**
- **SYS5430 Foundations of Systems Engr Engineering Operations Research - Deterministic Models (4 credits)**
- **SYS5431 Egr Ops Rsrch/Stochastic Model Engineering Operations Research - Stochastic Models (4 credits) ***
- **SYS5434 Metamodel & Opt Mthd in Design Metamodeling and Optimization Methods in Design (4 credits)**
- **SYS5517 Statistical Methods in Engr Statistical Methods in Engineering (4 credits)**
- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)**

Core courses (12 credits)

Required course:

- **SYS5487 Foundations of Systems Engr Foundations of Systems Engineering (4 credits)**

Choose two courses from the following:

- **SYS6680 Engineering Decision Analysis Engineering Decision Analysis (4 credits)**
- **SYS5420 Engineering Project Management Engineering Project Management (4 credits)**
- **SYS5560 Lifecycle Management Product Lifecycle Management (4 credits)**
- **SYS5488 Advanced Systems Engineering Advanced Systems Engineering ***

Systems elective courses (8 credits)

Students must select 8 credits from the following course options:

- Any 5000 level or higher SYS course (except SYS 6996, SYS 6998) or ISE course (except ISE 5001, ISE 5002, ISE 5003, ISE 6996, ISE 6998)

Exit (8 credits)

Students must select 8 credits from **one** of the following **two options** :

- **General Elective Course option** - 8 credits from any 5000 level or higher CSE (except CSE 5005, CSE 5006, CSE 5007, CSE 5008), ECE, ISE (except ISE 5001, ISE 5002, ISE 5003), ME or SYS course (including SYS 6996) Note that the satisfaction of the prerequisites for any given course on this list may depend upon the engineering discipline of the student's B.S. degree.

OR

- **Thesis Option** - 8 credits of **SYS6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits.

Students electing a thesis option must accumulate 8 credits of SYS 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The selection of the committee and the plan of study must be approved by the Department chair. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Courses with Asterisks (*)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship

- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in the evening with some online. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**SYS6996 Graduate Engineering Project**) or a directed master's thesis research (**SYS6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Students electing a thesis option must accumulate a minimum of 8 credits of **SYS6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval, at least one semester before graduation. The completed thesis must conform to

university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Industrial and Systems Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Industrial and Systems Engineering	Major

Program Type
Master

College/School
School of Engineering and Computer Science (EG)

Department(s)
Industrial/Systems Engineering

Credit Total	Delivery Method	Required
32	100% online and partially online	Summer Semesters 0

Requirements

Program Requirements

Department of History
415 Varner Hall ([map](#))
(248) 370-3510 • Fax (248) 370-3528
www.oakland.edu/ise

Graduate Coordinator:
Vijitashwa Pandey
502B Engineering Center
(248) 370-2989
pandey2@oakland.edu

Program Description:

The Master of Science program in Industrial and Systems Engineering is designed to prepare students for significant, engineering-related careers in industry as well as simultaneously for further graduate study. Admission is open to students with a bachelor's degree in any engineering discipline (industrial, mechanical, electrical, computer, chemical, etc.). Applicants with a bachelor's degree in computer science, engineering technology, information technology or related fields will be considered for admission, but they may be required to take one or more preparatory courses in engineering.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements
2. **Additional department application requirements**
 - **Requirements for recommendations:**
 - Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores of their Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a Request to Waive GRE form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science in any engineering discipline. Applicants from other disciplines such as computer science, engineering technology, information technology and software engineering, would be considered after successfully completing appropriate prerequisite courses.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants for whom the GRE is not waived, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science degree in Industrial and Systems Engineering, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree
- Complete the requirements specified for the program in Industrial and Systems Engineering
- Satisfy all requirements concerning academic progress (see Academic progress below).

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project ([ISE6996 Graduate Engineering Project](#)) or master's thesis research ([ISE6998 Master's Thesis Research](#)) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to include such an experience.

Course Requirements (32 credits)

a. Theory Courses (4 to 8 credits)

Choose one or two courses from the following:

- [ISE5430 EGR Ops Rsrch/Deterministic Engineering Operations Research - Deterministic Models](#) (4 credits)
- [ISE5517 Stats Methods in Engineering Statistical Methods in Engineering](#) (4 credits)

- [ISE5434 Metamodel & Opt Mthd in Design Metamodeling and Optimization Methods in Design](#) (4 credits)
- [MOR5554 Linear & Integer Optimization Linear and Integer Optimization](#) (4 credits)
- [STA5001 Stat Methods in Res and Prod Statistical Methods in Research and Production](#) (4 credits)
- [SYS5402 System Optimization & Design Systems Optimization and Design](#) (4 credits)
- [APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I](#) (4 credits)

b. Required Courses (12 credits)

Students are required to select at least three courses from:

- Choose three courses from the following:
- [ISE5431 Engr Ops Rsrch/Stochastic Mods Engineering Operations Research - Stochastic Models](#) (4 credits) *
- [ISE5441 Human Factors Engineering Human Factors Engineering](#) (4 credits) *
- [ISE5469 Cmptr Sim Discrete Event Sys Computer Simulation of Discrete Event Systems](#) (4 credits) *
- [ISE5483 Prod Systems/Workflow Analysis Production Systems and Workflow Analysis](#) (4 credits) *
- [ISE5485 Statistical Quality Analysis Statistical Quality Analysis](#) (4 credits) *
- [ISE5487 Foundations of Systems Engr Foundations of Systems Engineering](#) (4 credits) *
- [ISE5540 Occupational Biomechanics Occupational Biomechanics](#) (4 credits)

c. ISE Elective Courses (8 credits)

Students are required to select 8 credits of elective courses from any 5000-level or higher ISE course except ISE 5001, ISE 5003, ISE 5970, ISE 6996, ISE 6998, and ISE 7900.

d. General Elective Courses** (4 to 8 credits)

Additional credits may be taken from the following elective courses or the student may select the M.S. thesis option (8 credits of [ISE6998 Master's Thesis Research](#)).

- ISE: Any course level 5000 or above (except ISE 5001, 5002 and 5003),

CSI, ECE, ME, SYS: Any course level 5000 or above (Satisfaction of the prerequisites for any course in this list will depend upon the engineering discipline of the student's B.S. degree.)

With written approval:

- [ISE5970 Independent Study, ISE6996 Graduate Engineering Project, ISE6998 Master's Thesis Research, ISE7900 Advanced Special Topics](#)

Courses With Asterisks (*, **)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

** Other electives that are appropriate to the student's Plan of Study require prior approval of the faculty adviser and department chair

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. In all programs the minimum GPA requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in the evening with some also online. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**ISE6996 Graduate Engineering Project**) or a directed master's thesis research (**ISE6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Students electing a thesis option must accumulate a minimum of 8 credits of **ISE6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the Department of Industrial and Systems Engineering Department. The selection of the committee and the Plan of Study must be approved by the ISE department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Cybersecurity

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Cybersecurity	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<http://www.cse.secs.oakland.edu/>

Coordinator:

Huirong Fu

528 Engineering Center

(248) 370-4456

fu@oakland.edu

Program description

The Master of Science in Cyber Security degree program is designed to provide a strong foundation and detailed technical knowledge in information security, computer security, network security, software security as well as an appreciation of the social, policy, ethical and legal aspects of security and privacy. A natural continuation of studies is offered for students who have received a baccalaureate in computer science, information technology, computer engineering, electrical engineering, information systems, mathematics, software engineering, or a related technical area, and are interested in furthering their knowledge in Cyber Security. The program offers two tracks: a research track and a professional track.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), April 15 (regular), July 15 (late) for fall semester

- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science in computer science, information technology, computer engineering, electrical engineering, information systems, mathematics, software engineering, or equivalent. Applicants from other disciplines would be considered after successfully completing appropriate prerequisite courses.
 - Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
 - If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale and at least a 3.0 grade point average in technical courses related to Cyber Security, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional

accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.

- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree requirements

The Master of Science in Cyber Security degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course requirements

1. Research track (32 credits)

The research track requires 32 credits including 8 credits of thesis to graduate. The structure of credits is as follows:

a. Foundation requirements (12 credits)

Choose three courses from the following:

- **CSI5230 Android Application Development Mobile and Smart Phone Application Development (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**
- **CSI5470 Computer Networks Computer Networks (4 credits)**
- **CSI5500 Operating Systems I Operating Systems I (4 credits)**

b. Core requirement (4 credits)

Required course:

- **CSI5460 Information Security Information Security (4 credits)**

c. Depth requirement (8 credits)

Choose two courses from the following:

- **APM5347 Mathematics of Cryptology Mathematics of Cryptology (4 credits)**

- **CSI5480 Information Security Practice Information Security Practices (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5730 Non-crypto methods for S & P Non-Cryptographic Methods for Network Security and Privacy (4 credits)**
- **CSI5740 Cyber Laws & Digital Forensics Cyberlaw, Forensics and Electronic Discovery (4 credits)**
- **CSI 5900 - ST: Mobile Security (4 credits)**
- **CSI5600 Network Security Network Security (4 credits)**
- **MIS6410 IS Privacy IS Privacy (3 credits)**
- **MIS6430 Intell Property/Public Domain Intellectual Property and the Public Domain in the Age of Remix (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**

d. Electives (8 credits)

Students on a research track must complete a thesis for 8 credits:

- **CSI5970 Independent Study Independent Study (1 TO 4 credits)**
- **CSI6998 Master's Thesis Research Master's Thesis Research (2 to 8 credits)**
- **CSI7995 Research Methodology in CS Research Methodology in Computer Science (2 credits)**
- **CSI7940 Research Seminar in CS Research Seminar in Computer Science (2 credits)**
- Note: The program will require 16 semester hours of foundation and core courses and 16 semester hours of depth/elective course work for a total of 32 semester hours. Research track students are required to take Master's Thesis Research plus at least 2 depth courses.

2. Professional track (32 credits)

The professional track requires 32 credits of graduate coursework. The structure of credits is as follows.

a. Foundation requirements (12 credits)

Choose three courses from the following:

- **CSI5230 Android Application Development Mobile and Smart Phone Application Development (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**

- **CSI5500 Operating Systems I Operating Systems I (4 credits)**

b. Core requirement (4 credits)

Required course:

- **CSI5460 Information Security Information Security (4 credits)**

c. Depth requirement (8 credits)

Choose two courses from the following:

- **APM5347 Mathematics of Cryptology Mathematics of Cryptology (4 credits)**
- **CSI5480 Information Security Practice Information Security Practices (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**
- **CSI5730 Non-crypto methods for S & P Non-Cryptographic Methods for Network Security and Privacy (4 credits)**
- **CSI5740 Cyber Laws & Digital Forensics Cyberlaw, Forensics and Electronic Discovery (4 credits)**
- **CSI 5900 - ST: Mobile Security (4 credits)**
- **CSI5600 Network Security Network Security (4 credits)**
- **MIS6410 IS Privacy IS Privacy (3 credits)**
- **MIS6430 Intell Property/Public Domain Intellectual Property and the Public Domain in the Age of Remix (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**

d. Electives (8 credits)

- **CSI5970 Independent Study Independent Study (1 TO 4 credits)**
- **CSI7995 Research Methodology in CS Research Methodology in Computer Science (2 credits)**
- **CSI7940 Research Seminar in CS Research Seminar in Computer Science (2 credits)**

Note: The program will require 16 semester hours of foundation and core courses and 16 semester hours of depth/elective course work for a total of 32 semester hours. Professional track students are required to take at least 3 depth courses

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below 3.0, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than 3.0 while on probation is subject to dismissal. A graduate student receiving more than two grades below 3.0 is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Information Technology/Cybersecurity

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Information Technology/ Cybersecurity	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

**Summer
Semesters**

0

Requirements

Program Requirements

The Combined BS/MS in Information Technology (BS) and Cyber Security (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Information Technology major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

To be eligible for the Information Technology/Cybersecurity, Combined B.S. to M.S. option, students must:

1. Have a major GPA of 3.2 or above.
2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of 3 graduate classes (12 credits)
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Information Technology**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Energy Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Energy Engineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Mechanical Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Mechanical Engineering

402 Engineering Center ([map](#))
(248) 370-2210 • Fax (248) 370-4416
<http://www.oakland.edu/secs/me>

Coordinator

Laila Guessous
402 Engineering Center
guessous@oakland.edu

Program Description

The Master of Science in Energy Engineering is designed to prepare students for advanced-level energy engineering careers including in the sectors of power generation, energy distribution and storage, fuels, transportation, and energy use efficiency. Given the interdisciplinary nature of this field, this program is being offered by the Department of Mechanical Engineering in close collaboration with the Department of Electrical and Computer Engineering, and the program consists of courses from both disciplines.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester

- March 1 (regular) for summer semester

Admission is open to students with a Bachelor of Science in engineering, physics, or mathematics. Other fields of science may be acceptable, but a student presenting such a degree is required to complete or have completed MTH 1555, MTH 2554, and APM 2555 (or APM 2559 and MTH 2775) or equivalent.

See **Preparatory undergraduate course requirements under [Graduate admission documents](#)** for admission to MS in Energy Engineering, these program prerequisites must be completed prior to admission to the program.

An entering student must have completed the following courses or their equivalents.

- MTH 1555 Calculus II
- MTH 2554 Multivariable Calculus
- APM 2555 Introduction to Differential Equations with Matrix Algebra (or APM 2559 and MTH 2775)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

- Graduate application requirements**
- Additional department application requirements**
 - Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.

- Bachelor of Science in engineering, physics, or mathematics. Other fields of science may be acceptable with evidence of **preparatory course completion** or their equivalents (see preparatory course requirements).
- Admission to master's study is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements (32 credits)

To satisfy the requirements for the MS degree in Energy Engineering, all students admitted to the program are expected to complete a minimum of 32 credit hours of graduate coursework, with a cumulative grade point average of B or better. The program of study consists of theory, depth, capstone, and elective courses. The program will require 4 credit hours of theory courses, 12 credit hours of depth courses, 4-8 credit hours of capstone courses, and 8-12 credit hours of elective courses for a total of 32 credit hours.

Theory Courses (4 credits)

Complete 4 credits from the following:

- **APM5333 Numerical Methods Numerical Methods (4 credits)**
- **APM5441 Mathematical Analysis for Engineers I (4 credits)**
- **APM5442 Mathematical Analysis for Engineers II (4 credits)**
- **ME5310 Machine Learning Engineering D Machine Learning Engineering Design (4 credits)**
- **ME5400 Numerical Methods/Mech Engr Numerical Methods for Mechanical Engineering (4 credits)**
- **ME5434 Metamodeling Optimiz. Meth Dsg Metamodeling and Optimization Methods in Design (4 credits)**

- **SYS5402 System Optimization & Design Systems Optimization and Design (4 credits)**
- **SYS5430 Foundations of Systems Engr Engineering Operations Research - Deterministic Models (4 credits)**

b. Depth Courses (12 credits)

Students must declare one depth area and complete 12 credits from that area:

1. Conventional and Renewable Energy

Required (at least 4 credits):

- **ECE5625 Microgrid Design and Operation Microgrid Design and Operation (4 credits)**
- **ME5530 Renewable Energy Renewable Energy (4 credits)**

Electives:

- **ECE5600 Design of AC Machines Design of AC Machines (4 credits)**
- **ECE5640 Battery Management Systems Battery Management Systems (4 credits)**
- **ME5525 Fuel Cell Science and Technolo Fuel Cell Science and Technology (4 credits)**
- **ME5540 Internal Combustion Engines I Internal Combustion Engines I (4 credits)**
- **ME5560 Combustion Processes Combustion Processes (4 credits)**
- **ME5570 Sustainable Design For Built E Sustainable Design for the Built Environment (4 credits)**
- **ME5580 Fundamentals/Nuclear Engr Fundamentals of Nuclear Engineering (4 credits)**
- **ME6650 Advanced Battery Materials Advanced Battery Materials (4 credits)**
- **PHY5730 Nuclear Physics Nuclear Physics (4 credits)**

2. Vehicle Electrification

Required (at least 4 credits):

- **ECE5630 Electric/Hybrid Drive Systems Electric and Hybrid Drive Systems (4 credits)**
- **ME5535 Introduction to Electric Drive Introduction to Electric Drive Vehicle Engineering (4 credits)**

Electives:

- **ECE5600 Design of AC Machines Design of AC Machines (4 credits)**
- **ECE5640 Battery Management Systems Battery Management Systems (4 credits)**

- **ME5205 Powertrain Control and Diag** Powertrain Control and Diagnostics (4 credits)
- **ME5545 Fundamentals of Battery System** Fundamentals of Battery Systems Hybrid and Elec Vehicles (4 credits)
- **ME5525 Fuel Cell Science and Technolo** Fuel Cell Science and Technology (4 credits)

3. Battery Technology

Required:

- **ME5545 Fundamentals of Battery System** Fundamentals of Battery Systems Hybrid and Electric Vehicles (4 credits)

Electives:

- **ECE5640 Battery Management Systems** Battery Management Systems (4 credits)
- **ME6650 Advanced Battery Materials** Advanced Battery Materials (4 credits)
- **ME5525 Fuel Cell Science and Technolo** Fuel Cell Science and Technology (4 credits)

4. Energy Use Efficiency

Required (at least 4 credits):

- **ME5570 Sustainable Design For Built E** Sustainable Design for the Built Environment (4 credits)
- **ISE5450 Fundamentals/Energy Management** Fundamentals of Energy Management (4 credits)

Electives:

- **ECE5610 Energy Conservation Systems** Energy Conservation Systems (4 credits)
- **ECE5620 Electrical Energy Systems** Electrical Energy Systems (4 credits)
- **ME5520 Intermediate Heat Transfer** Intermediate Heat Transfer
- **ME5530 Renewable Energy** Renewable Energy (4 credits)

c. Elective Courses

Complete 8-12 credits total from the following list of Energy Electives (up to 12 credits) and/or Sustainability Electives (up to 4 credits)

Engineering Electives (up to 12 credits):

- Any SECS graduate course listed in the above depth areas that was not taken to satisfy the depth requirements.
- **ME5510 Intermediate Fluid Mechanics** Intermediate Fluid Mechanics (4 credits)

- **ME5515 Comp Fluid Dynamics** Computational Fluid Dynamics (4 credits)
- **ME5900 Special Topics** Special Topics (2 to 4 credits) (with approval)
- **ME6510 Convective Transport Phenomena** Convective Transport Phenomena (4 credits)
- **ME6520 Thermal Transport Phenomena** Thermal Transport Phenomena (4 credits)
- **ME7510 Gas Dynamics** Gas Dynamics (4 credits)
- **ECE5900 Special Topics** (1 to 4 credits) (with approval)
- **ISE5487 Foundations of Systems Engr** Foundations of Systems Engineering (4 credits)
- **ISE5488 Advanced Systems Engineering** Advanced Systems Engineering (4 credits)
- **ISE5490 Industrial Sustainability** Industrial Sustainability (4 credits)
- other 5000-level or greater SECS courses (with approval)

Sustainability Electives (up to 4 credits):

- **BIO5380 Ecological Problem Solving** Ecological Problem Solving (4 credits)
- **CHM5230 Chemical Separations** Chemical Separations (3 credits)
- **CHM5730 Fundamentals of Materials** Chem Fundamentals of Materials Chemistry (3 credits)
- **CHM 5740 - Polymer Science and Technology** (3 credits)
- **ECN5010 Introduction to Economics** Introduction to Economics (3 credits)
- **ECN6850 Economics of Industries** Economics of Industries (3 credits)
- **EHS5440 Environmental Standards** Environmental Standards (3 credits)
- **ENV5800 Biogeochemical Cycling** Biogeochemical Cycling (3 credits)
- **ENV5850 Environmental Fate & Transport** Environmental Fate and Transport (3 credits)
- **ENV5870 Natural Resource Management** Natural Resources Management: Exploration, Exploitation, Contamination and Remediation (3 credits)
- **PH5350 Environmental Justice** Environmental Justice (4 credits)
- **PHY5220 Stats Thermodynamics** Statistical Thermodynamics (4 credits)
- Other 5000-level or greater non-SECS courses (with approval)

d. Capstone Courses

Complete 4-8 credits from the following:

- **ME5590 Energy & Sustainability Eng Se Energy and Sustainability Engineering Seminar and Practice (4 credits)**
- **ME6996 Graduate Engineering Project Graduate Engineering Project (2 to 8 credits)**
- **ME6998 Master's Thesis Research Master's Thesis Research (8 credits)**
- **ECE6996 Graduate Engineering Project Graduate Engineering Project (1 TO 4 credits)**
- **ECE6998 Master's Thesis Research Master's Thesis Research (2 TO 8 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more

than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0, or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project, or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Transfer Credit

Students transferring from institutions with which Oakland University has an articulation agreement containing alternative transfer credit arrangements will be admitted according to the criteria in that agreement.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**ME6996 Graduate Engineering Project** or **ECE6996 Graduate Engineering Project**) or a directed master's thesis research (**ME6998 Master's Thesis Research** or **ECE6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Thesis research provides a unique and valuable learning experience in which an individual student works with a faculty adviser in an area of mutual interest. Students are strongly encouraged to include such an experience in their graduate studies.

Students electing a thesis option must accumulate a minimum of 8 credits of **ME6998 Master's Thesis Research** or **ECE6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see Thesis and Dissertation). At the completion of the research and its

documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Electrical and Computer Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Electrical and Computer Engineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

32

Delivery Method Required

In person

**Summer
Semesters**

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Master of Science in electrical and computer engineering degree program (ECE) is designed for students who are interested in acquiring advanced knowledge and skills in the traditional and emerging areas of ECE. The graduate curricula include strong offerings in advanced control engineering, automotive mechatronic systems, computer engineering, digital and wireless communication, digital signal and image processing, electromagnetics and antenna theory, electronics and microelectronics system design, microprocessor-based system design and robotic systems.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Recommendation for Graduate Admission form: Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a
 - **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Bachelor of Science in electrical engineering or computer engineering. Applicants from other disciplines will be considered after successfully completing appropriate prerequisite courses.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science in electrical and computer engineering degree, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science.
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree.
- Complete the requirements specified for the program in electrical and computer engineering.
- Satisfy all requirements concerning academic progress.

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project (**ECE6996 Graduate Engineering Project**) or master's thesis research (**ECE6998 Master's Thesis Research**) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to include such an experience as their program permits.

Course Requirements (32 credits)

a. Core and Theory Course Requirements (8 credits)

Choose two courses from the following:

- **APM5441 Math Analysis For Engineers I** Mathematical Analysis for Engineers I (4 credits)
- **APM5442 Math Analysis For Engineers II** Mathematical Analysis for Engineers II (4 credits)

- **APM5663 App Mth: Discrete Methods I** Applied Mathematics: Discrete Methods I (4 credits)
- **MTH5555 Complex Analysis** Complex Analysis (4 credits)
- **SYS5402 System Optimization & Design** Systems Optimization and Design (4 credits)
- **ECE5404 Linear Systems and Control** Linear Systems and Control (4 credits)
- **ECE5206 Random Signals & Processes** Random Signals and Processes (4 credits)

b. Depth and Breadth Area Options (16 credits)

- Depth requirement: To satisfy the depth requirement, students must either complete a master's thesis or choose one of the options below as the depth area and take at least two courses from it. (8 credits)
- Breadth requirement: To satisfy the breadth requirement, students must choose two other options as the breadth areas and take at least one course from each. (8 credits)

1. Communications Option

- **ECE5137 High-Frequency Electronics** High-Frequency Electronics (4 credits)
- **ECE5206 Random Signals & Processes** Random Signals and Processes (4 credits)
- **ECE5210 Principles of Digital Comm** Principles of Digital Communications (4 credits)
- **ECE5230 Satellite-Based Position Sys** Satellite-Based Positioning Systems (4 credits)
- **ECE6201 Signal Detection & Est Theory** Signal Detection and Estimation Theory (4 credits)
- **ECE6212 Wireless Communications** Wireless Communications (4 credits)
- **ECE6214 Modulation and Coding** Modulation and Coding (4 credits)

Additional course options with approval:

- **ECE5900 Special Topics** Special Topics (1 to 4 credits)
- **ECE5970 Independent Study** Independent Study (2 to 4 credits) ***
- **ECE6996 Graduate Engineering Project** Graduate Engineering Project (1 TO 4 credits) **
- **ECE6998 Master's Thesis Research** Master's Thesis Research (2 TO 8 credits) ***
- **ECE7900 Special Topics** Special Topics (2 to 4 credits)

2. Computer Engineering Option

- **ECE5710 Computer Hardware Design** Computer Hardware Design (4 credits) *

- [ECE5721 Embedded Systems Design](#) Embedded Systems Design (4 credits) *
- [ECE5760 Embedded Sys Design w/FPGAs](#) Embedded System Design with FPGAs (4 credits)
- [ECE5731 Fund of Embedded Sys Design](#) Fundamentals of Embedded System Design (4 credits)
- [ECE5734 Embed Sys Verif & Validation](#) Embedded System Verification and Validation (4 credits)
- [ECE5736 Reconfigurable Computing](#) Reconfigurable Computing (4 credits)
- [ECE5740 Embedded AI](#) Embedded Artificial Intelligence (4 credits)
- [ECE5770 GPU Accelerated Computing](#) GPU Accelerated Computing (4 credits)
- [ECE5772 High Performance Embed Prog](#) High Performance Embedded Programming (4 credits)
- [ECE5780 Embedded Security](#) Embedded Security (4 credits)
- [ECE5415 Microcomp-Based Control Sys](#) Microcomputer-Based Control Systems (4 credits) *
- [ECE5132 VLSIC Design of Digital Chips](#) VLSIC Design of Digital Chips (4 credits)
- [ECE6712 Parallel Embed Comp Architec](#) Parallel Embedded Computer Architecture (4 credits)
- [ECE6740 Adv Embedded Sys Design](#) Advanced Embedded System Design (4 credits)
- [ECE6742 DSP in Embedded Systems](#) DSP in Embedded Systems (4 credits)
- [ECE6745 Real-Time Computing Systems](#) Real-Time Computing Systems (4 credits)
- [ECE6760 Safety Crit Embedded Systems](#) Safety Critical Systems (4 credits)
- [CSI5640 Computer Architecture](#) Computer Architecture (4 credits) *

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)
- [ECE5970 Independent Study](#) Independent Study (2 to 4 credits) **
- [ECE6996 Graduate Engineering Project](#) Graduate Engineering Project (1 TO 4 credits) **
- [ECE6998 Master's Thesis Research](#) Master's Thesis Research (2 TO 8 credits) ***
- [ECE7900 Special Topics](#) Special Topics (2 to 4 credits)

3. Controls Option

- [ECE5415 Microcomp-Based Control Sys](#) Microcomputer-Based Control Systems (4 credits) *
- [ECE5520 Automotive Mechatronics I](#) Automotive Mechatronics I (4 credits)
- [ECE5734 Embed Sys Verif & Validation](#) Embedded System Verification and Validation (4 credits)
- [ECE6410 Intelligent Control Systems](#) Intelligent Control Systems (4 credits)
- [ECE6520 Automotive Mechatronics II](#) Automotive Mechatronics II (4 credits)
- [ECE5404 Linear Systems and Control](#) Linear Systems and Control (4 credits)
- [ECE6400 Estimation and Control Theory](#) Estimation and Control Theory (4 credits)
- [ECE6412 Digital Control Systems](#) Digital Control Systems (4 credits)
- [ECE6430 Analysis Nonlinear Control Sys](#) Analysis of Nonlinear Control Systems (4 credits)
- [ECE6440 Adaptive Control Systems](#) Adaptive Control Systems (4 credits)
- [ECE6450 Model Predictive Control](#) Model Predictive Control (4 credits)
- [ECE6452 Optimal Control](#) Optimal Control (4 credits)

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)
- [ECE5970 Independent Study](#) Independent Study (2 to 4 credits) **
- [ECE6996 Graduate Engineering Project](#) Graduate Engineering Project (1 TO 4 credits) **
- [ECE6998 Master's Thesis Research](#) Master's Thesis Research (2 TO 8 credits) ***
- [ECE7900 Special Topics](#) Special Topics (2 to 4 credits)

4. Electromagnetics Option

- [ECE5137 High-Frequency Electronics](#) High-Frequency Electronics (4 credits)
- [ECE5230 Satellite-Based Position Sys](#) Satellite-Based Positioning Systems (4 credits) *
- [ECE5300 Electromagnetic Engineering](#) Electromagnetic Engineering (4 credits)
- [ECE5310 Antennas](#) Antennas (4 credits) *
- [ECE5320 Electromagnetic Compatibility](#) Electromagnetic Compatibility (4 credits)

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)
- [ECE5970 Independent Study](#) Independent Study (2 to 4 credits) **
- [ECE6996 Graduate Engineering Project](#) Graduate Engineering Project (1 TO 4 credits) **
- [ECE6998 Master's Thesis Research](#) Master's Thesis Research (2 TO 8 credits) ***
- [ECE7900 Special Topics](#) Special Topics (2 to 4 credits)

5. Electronics Option

- [ECE5130 Microelectronic Matls and Devi](#) Microelectronic Materials and Devices (4 credits)
- [ECE5132 VLSIC Design of Digital Chips](#) VLSIC Design of Digital Chips (4 credits)
- [ECE5134 Fundamentals of MEMS](#) Fundamentals of MEMS (4 credits)
- [ECE5135 Microelec Fabrication Tech](#) Microelectronic Fabrication Technologies (4 credits) *
- [ECE5137 High-Frequency Electronics](#) High-Frequency Electronics (4 credits)
- [ECE5140 Instrumentation & Measurements](#) Instrumentation and Measurements (4 credits)
- [ECE6132 Adv VSLIC Analog/Digit Sys Des](#) Advanced VSLIC Analog/Digital Systems Design (4 credits)
- [ECE6136 Appl of Analog Integ Circuits](#) Applications of Analog Integrated Circuits (4 credits)
- [ECE6138 Field-Effect Devices](#) Field-Effect Devices (4 credits)

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)
- [ECE5970 Independent Study](#) Independent Study (2 to 4 credits) **
- [ECE6996 Graduate Engineering Project](#) Graduate Engineering Project (1 TO 4 credits) **
- [ECE6998 Master's Thesis Research](#) Master's Thesis Research (2 TO 8 credits) ***
- [ECE7900 Special Topics](#) Special Topics (2 to 4 credits)

6. Energy Option

- [ECE5610 Energy Conservation Systems](#) Energy Conservation Systems (4 credits)
- [ECE5625 Microgrid Design and Operation](#) Microgrid Design and Operation (4 credits)

- [ECE5630 Electric/Hybrid Drive Systems](#) Electric and Hybrid Drive Systems (4 credits) *
- [ECE5404 Linear Systems and Control](#) Linear Systems and Control (4 credits)
- [ECE5620 Electrical Energy Systems](#) Electrical Energy Systems (4 credits) *

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)
- [ECE5970 Independent Study](#) Independent Study (2 to 4 credits) **
- [ECE6996 Graduate Engineering Project](#) Graduate Engineering Project (1 TO 4 credits) **
- [ECE6998 Master's Thesis Research](#) Master's Thesis Research (2 TO 8 credits) ***
- [ECE7900 Special Topics](#) Special Topics (2 to 4 credits)

7. Mechatronics and Robotics Option

- [ECE5140 Instrumentation & Measurements](#) Instrumentation and Measurements (4 credits)
- [ECE5415 Microcomp-Based Control Sys](#) Microcomputer-Based Control Systems (4 credits) *
- [ECE5500 Robotic Systems and Control](#) Robotic Systems and Control (4 credits)
- [ECE5520 Automotive Mechatronics I](#) Automotive Mechatronics I (4 credits) *
- [ECE5532 Autonomous Vehicle Systems I](#) Autonomous Vehicle Systems I (4 credits)
- [ECE5551 Human Robot Interaction](#) Human Robot Interaction (4 credits)
- [ECE5630 Electric/Hybrid Drive Systems](#) Electric and Hybrid Drive Systems (4 credits) *
- [ECE6460 Autonomous Vehicle Systems II](#) Autonomous Vehicle Systems II (4 credits)
- [ECE6520 Automotive Mechatronics II](#) Automotive Mechatronics II (4 credits)
- [SYS5402 System Optimization & Design](#) Systems Optimization and Design (4 credits)
- [ECE6412 Digital Control Systems](#) Digital Control Systems (4 credits)
- [ECE6430 Analysis Nonlinear Control Sys](#) Analysis of Nonlinear Control Systems (4 credits)
- [ECE6462 Dyn Control Robot Manipulators](#) Dynamics and Control of Robot Manipulators (4 credits)

Additional course options with approval:

- [ECE5900 Special Topics](#) Special Topics (1 to 4 credits)

- **ECE5970 Independent Study** Independent Study (2 to 4 credits) **
- **ECE6996 Graduate Engineering Project** Graduate Engineering Project (1 TO 4 credits) **
- **ECE6998 Master's Thesis Research** Master's Thesis Research (2 TO 8 credits) ***
- **ECE6520 Automotive Mechatronics II Special Topics** (2 to 4 credits)

8. Signal Processing Option

- **ECE5206 Random Signals & Processes** Random Signals and Processes (4 credits)
- **ECE5220 Digital Signal Processing** Digital Signal Processing (4 credits)
- **ECE6201 Signal Detection & Est Theory** Signal Detection and Estimation Theory (4 credits)
- **ECE6240 Digital Image Processing** Digital Image Processing (4 credits)
- **ECE6240 Digital Image Processing Advanced Digital Signal Processing** (4 credits)

Additional course options with approval:

- **ECE5900 Special Topics** Special Topics (1 to 4 credits)
- **ECE5970 Independent Study** Independent Study (2 to 4 credits) **
- **ECE6996 Graduate Engineering Project** Graduate Engineering Project (1 TO 4 credits) **
- **ECE6998 Master's Thesis Research** Master's Thesis Research (2 TO 8 credits) ***
- **ECE7900 Special Topics** Special Topics (2 to 4 credits)

c. Electives (8 credits)

- An additional 8 credits of electives can be chosen from any of the ECE or SYS courses listed above under various options.

Additional Electives (with adviser consultation)

With adviser's approval, students may also choose their electives from the following group of courses:

- **CSI5130 Artificial Intelligence** Artificial Intelligence (4 credits)
- **PHY5620 Mechanics II** Mechanics II (4 credits)
- **PHY5740 Intro To Solid State Phy** Introduction to Solid-State Physics (4 credits)
- **PHY5830 Classical Electrodynamics** Classical Electrodynamics (4 credits)

- **PHY6320 Intro To Lasers & Masers** Introduction to Lasers and Masers (4 credits)
- **PHY6730 Quantum Mechanics** Quantum Mechanics (4 credits)

Courses with Asterisks (*, *, *)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

** At most 4 credits of **ECE5970 Independent Study** and **ECE6996 Graduate Engineering Project** can be used toward the degree.

*** A minimum of 8 credits are required for master's thesis (**ECE6998 Master's Thesis Research**).

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, a master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course credit

Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of a cross-listed senior/graduate course cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's project or thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**ECE6996 Graduate Engineering Project**) or a directed master's thesis research (**ECE6998 Master's Thesis Research**) may be included as part of the program.

Students electing a thesis option must accumulate a minimum of 8 credits of ECE 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechatronics and Robotics Engineering/Electrical and Computer Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Mechatronics and Robotics Engineering/ Electrical and Computer Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined BSE/MS in Mechatronics and Robotics Engineering (BSE) and Electrical and Computer Engineering (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Mechatronics and Robotics Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in MRE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Mechatronics and Robotics Engineering, B.S.E./ Electrical and Computer Engineering, M.S. option, students must:

1. Have achieved Major Standing in Mechatronics and Robotics Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Mechatronics and Robotics Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Subject	Number	Title	Credits	Und (Eac
<u>CSI5130 Artificial Intelligence</u> CSI	5130	Artificial Intelligence	4	
<u>ECE5134 Fundamentals of MEMS</u> ECE	5134	Fundamentals of MEMS	4	
<u>ECE5415 Microcomp-Based Control Sys</u> ECE	5415	Microcomputer-based Control Systems	4	
<u>ECE5500 Robotic Systems and Control</u> ECE	5500	Robotic Systems and Control	4	

<u>ECE5510 Machine Vision</u> ECE	5510	Machine Vision	4	
<u>ECE5520 Automotive Mechatronics I</u> IECE	5520	Automotive Mechatronics I	4	
<u>ECE5532 Autonomous Vehicle Systems</u> IECE	5532	Autonomous Vehicle Systems I	4	

<u>ECE5551 Human Robot Interaction</u> ECE	5551	Human Robot Interaction	4	
<u>ECE5630 Electric/Hybrid Drive Systems</u> ECE	5630	Electric and Hybrid Drive Systems	4	
<u>ECE5640 Battery Management Systems</u> ECE	5640	Battery Management Systems	4	
<u>ECE5731 Fund of Embedded Sys Design</u> ECE	5731	Fundamentals of Embedded System Design	4	

<u>ECE5740</u> Embedded AI/ECE	5740	Embedded Artificial Intelligence (AI)	4	

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechatronics and Robotics Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Mechatronics and Robotics Engineering	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

32

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Master of Science in Mechatronics and Robotics Engineering degree program is designed to prepare students for a multi-disciplinary engineering specialty needed in its ever-growing applications in consumer products, manufacturing, transportation systems, security systems, defense systems, aerospace, sports engineering, biomedical systems, and automotive systems. The curriculum offers strong offerings in the areas of robotics, autonomous vehicles, automotive mechatronics, controls, microelectromechanical systems, embedded systems, mechanical design, and artificial intelligence/machine learning.

The Mechatronics and Robotics Engineering master's program has been designed to support stackable certificates. A student on the way to completing this program will receive a Certificate in "Mechatronics and Robotics Fundamentals", and a Certificate in their Professional Area of focus.

The program is designed for students with a baccalaureate degree in electrical engineering, computer engineering, mechanical engineering, or robotics who want to strive for a balance of theory and hardware of the electrical and mechanical engineering aspects of mechatronic and robotics systems. A degree in other fields may be acceptable but remedial coursework may be required to overcome deficiencies. It is offered by the ECE and ME departments.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Recommendation for Graduate Admission form: Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.

- To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee

- Bachelor of Science degree in mechanical engineering, electrical engineering, computer engineering, systems engineering, or an equivalent degree. Or Bachelor of Science in Mathematics, Computer Science, or an equivalent degree, and some experience working in a Mechatronics or Robotics engineering field.
- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To fulfill the requirements for a Master of Science degree in mechatronics and robotics engineering, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science.
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree.

- Complete the requirements specified for the program.
- Satisfy all requirements concerning academic progress.

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project (ECE/ME 6996) or master's thesis research (ECE/ME 6998) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to include such an experience as their program permits.

Students must fulfill the following program requirements to be awarded the Master of Science in Mechatronics and Robotics Engineering:

Course Requirements (32 credits)

a. Core Requirements (12 credits)

Choose three courses from the following:

- **ECE5140 Instrumentation & Measurements Instrumentation and Measurements (4 credits)**
- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits) ***
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits) ***
- **ECE5731 Fund of Embedded Sys Design Fundamentals of Embedded System Design (4 credits) ***

b. Professional Areas - 12 credits (from one of the areas below)

1. Automotive Mechatronics (12 credits):

Required, choose one course from the following:

- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**

Choose two courses from the following:

- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits) ***
- **ME5230 Automotive Driveline Dynamics Automotive Driveline Dynamics (4 credits) ***
- **ME5540 Internal Combustion Engines I Internal Combustion Engines I (4 credits) ***

2. Autonomous Vehicle Systems (12 credits):

Required course:

- **ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)**

Choose two courses from the following:

- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits) ***
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits) ***
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6460 Autonomous Vehicle Systems II Autonomous Vehicle Systems II (4 credits)**
- **ECE6520 Automotive Mechatronics II Automotive Mechatronics II (4 credits)**

3. Autonomous Vehicle Systems (12 credits)

Required, choose one course from the following:

- **ECE5630 Electric/Hybrid Drive Systems Electric and Hybrid Drive Systems (4 credits) ***
- **ME5535 Introduction to Electric Drive Introduction to Electric Drive Vehicle Engineering (4 credits) ***

Choose two courses from the following:

- **ECE5600 Design of AC Machines Design of AC Machines (4 credits) ***
- **ECE5640 Battery Management Systems Battery Management Systems (4 credits) ***
- **ME5525 Fuel Cell Science and Technolo Fuel Cell Science and Technology (4 credits)**
- **ME5545 Fundamentals of Battery System Fundamentals of Battery Systems Hybrid and Elec Vehicles (4 credits) ***

4. Robotic Systems (12 credits):

Required course:

- **ECE5510 Machine Vision Machine Vision (4 credits) ***

Choose two courses from the following:

- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits) ***
- **ECE5520 Automotive Mechatronics I Automotive Mechatronics I (4 credits) ***
- **ECE5740 Embedded AI Embedded Artificial Intelligence (4 credits) ***
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ME5200 Dynamics Dynamics (4 credits)**
- **ME6230 Kinematics and Mechanisms Kinematics and Mechanisms (4 credits)**

5. Human-Robot Interactions (12 credits):

Required course:

- **ECE5551 Human Robot Interaction Human Robot Interaction (4 credits) ***
Choose two courses from the following:
- **ECE5500 Robotic Systems and Control Robotic Systems and Control (4 credits) ***
- **ECE5510 Machine Vision Machine Vision (4 credits) ***
- **ECE5532 Autonomous Vehicle Systems I Autonomous Vehicle Systems I (4 credits)**
- **SYS 5900 - ST: Virtual and Augmented Reality (4 credits)**

6. Systems and Controls (12 credits):

Required course:

- **ECE5404 Linear Systems and Control Linear Systems and Control (4 credits)**
Choose two courses from the following:
- **ECE5415 Microcomp-Based Control Sys Microcomputer-Based Control Systems (4 credits) ***
- **ECE6400 Estimation and Control Theory- Estimation and Control Theory (4 credits)**
- **ECE6410 Intelligent Control Systems Intelligent Control Systems (4 credits)**
- **ECE6412 Digital Control Systems Digital Control Systems (4 credits)**
- **ECE6430 Analysis Nonlinear Control Sys Analysis of Nonlinear Control Systems (4 credits)**
- **ECE6440 Adaptive Control Systems Adaptive Control Systems (4 credits)**
- **ECE6450 Model Predictive Control Model Predictive Control (4 credits)**
- **ECE6452 Optimal Control Optimal Control (4 credits)**

7. Systems Dynamics (12 credits):

Required course:

- **ME5200 Dynamics Dynamics (4 credits)**
Choose two courses from the following:
- **ME5260 Acoustics and Noise Control Acoustics and Noise Control (4 credits)**
- **ME6215 Noise, Vibration and Harshness Noise, Vibration and Harshness (4 credits)**
- **ME6230 Kinematics and Mechanisms Kinematics and Mechanisms (4 credits)**

c. Depth requirement (8 credits)

Thesis option

- Students electing a thesis option need to select a thesis supervisor and take 8 credits of either **ECE6998 Master's Thesis Research**, **ISE6998 Master's Thesis Research**, or **ME6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. All thesis must conform to university standards (see **Thesis and Dissertation**).
- **ECE6998 Master's Thesis Research Master's Thesis Research (2 TO 8 credits)**
- **ISE6998 Master's Thesis Research Master's Thesis Research (1 to 8 credits)**
- **ME6998 Master's Thesis Research Master's Thesis Research (8 credits)**

Non-Thesis Option

Students not electing a thesis option must take one additional course from any professional area listed above AND one graduate-level CSI/ECE/ISE/ME/SYS course.

Courses With Asterisk (*)

- * These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship

- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements:

The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs, the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of a cross-listed senior/graduate course cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Transfer Credit

Students transferring from other institutions are allowed to transfer a maximum of 9 credits of graduate coursework with the approval of the department.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (ECE/ME 6996) or a directed master's thesis research (ECE/ME 6998) may be included as part of the program.

Students electing a thesis option must accumulate a minimum of 8 credits of (ECE/ME 6998). Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the

committee for approval; however, a formal presentation of the proposal is not necessary. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Mechatronics and Robotics Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Mechatronics and Robotics Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total	Delivery Method	Required Summer Semesters
153	In Person	0

Requirements

Program Requirements

The Combined BSE/MS in Mechatronics and Robotics Engineering allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Mechatronics and Robotics Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in MRE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Mechatronics and Robotics Engineering, B.S.E./M.S. option, students must:

1. Have achieved Major Standing in Mechatronics and Robotics Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Mechatronics and Robotics Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Please note that the graduate program only allows for a single 4-credit Free Elective course.

Subject	Number	Title	Credits	Und (Eac
<u>CSI5130 Artificial Intelligence</u> CSI	5130	Artificial Intelligence	4	
<u>CSI5810 Info Retrieval/Knowldg Discov</u> CSI	5810	Information Retrieval and Knowledge Discovery	4	
<u>ECE5134 Fundamentals of MEMS</u> ECE	5134	Fundamentals of MEMS	4	
<u>ECE5415 Microcomp-Based Control Sys</u> ECE	5415	Microcomputer-based Control Systems	4	

<u>ECE5500 Robotic Systems and Control</u> ECE	5500	Robotic Systems and Control	4	
<u>ECE5510 Machine Vision</u> ECE	5510	Machine Vision	4	
<u>ECE5520 Automotive Mechatronics</u> IECE	5520	Automotive Mechatronics I	4	

<u>ECE5532 Autonomous Vehicle Systems</u> IECE	5532	Autonomous Vehicle Systems I	4	
<u>ECE5551 Human Robot Interaction</u> ECE	5551	Human Robot Interaction	4	
<u>ECE5630 Electric/Hybrid Drive Systems</u> ECE	5630	Electric and Hybrid Drive Systems	4	
<u>ECE5640 Battery Management Systems</u> ECE	5640	Battery Management Systems	4	
<u>ECE5731 Fund of Embedded Sys Design</u> ECE	5731	Fundamentals of Embedded System Design	4	

<u>ECE5740</u> <u>Embedded AI</u> ECE	5740	Embedded Artificial Intelligence (AI)	4	
<u>ISE5431 Engr Ops</u> <u>Rsrch/Stochastic</u> <u>Mods</u> ISE	5431	Engineering Operations Research	4	
<u>ISE5483 Prod</u> <u>Systems/</u> <u>Workflow</u> <u>Analysis</u> ISE	5483	Production Systems and Workflow Analysis	4	
<u>ME5205</u> <u>Powertrain</u> <u>Control and</u> <u>Diag</u> ME	5205	Controls and Diagnostics of Automotive Systems	4	
<u>ME5220</u> <u>Mechanical</u> <u>Vibrations</u> ME	5220	Vehicle Dynamics	4	
<u>ME5525 Fuel Cell</u> <u>Science and</u> <u>Technolo</u> ME	5525	Fuel Cell Science and Technology	4	

<u>ME5535</u> <u>Introduction to</u> <u>Electric Drive</u> ME	5535	Introduction to Electric Drive Vehicle Engineering	4	
<u>ME5540 Internal</u> <u>Combustion</u> <u>Engines I</u> ME	5540	Internal Combustion Engines I	4	
<u>ME5545</u> <u>Fundamentals of</u> <u>Battery</u> <u>System</u> ME	5545	Fundamentals of Battery Systems for Hybrid & Electric Vehicles	4	

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Engineering Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Engineering Management	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Industrial/Systems Engineering

Credit Total

35

Delivery Method Required

Partially Online, Fully Online

Summer Semesters

0

Requirements

Program Requirements

Department of Industrial and Systems Engineering

502 Engineering Center ([map](#))

(248) 370-2989 • Fax (248) 370-4625

www.oakland.edu/ise

Coordinator:

Vijitashwa Pandey

502B Engineering Center

(248) 370-2989

pandey2@oakland.edu

Program description

The Master of Science in Engineering Management degree is offered by the School of Engineering and Computer Science in cooperation with the School of Business Administration. The program is intended for students with a bachelor's degree in any field of engineering (industrial and systems, mechanical, electrical, civil, etc.) and has as its goal the provision of the tools and skills necessary for making sound management decisions in industry and business while retaining one's commitment to a specialized engineering field of endeavor. Applicants with a bachelor's degree in computer science, engineering technology, information technology or related fields will be considered for admission, but they may be required to take one or more preparatory courses in engineering.

Program delivery

The program is available either on campus, online, or hybrid.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**

- Requirements for recommendations:

Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.

- Applicants must submit official scores of their Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
- Bachelor of Science in any engineering major (mechanical, industrial, electrical, computer, chemical, etc.). Applicants from other disciplines such as computer science, engineering technology, information technology and software engineering, will be considered for admission; however, they may be required to take additional engineering courses.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants for whom the GRE is not waived, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

To be awarded the Master of Science in Engineering Management degree the student must:

- Successfully complete 35 credits of graduate level work as specified below.
- Earn a grade-point average of at least 3.0 in courses applied toward the degree.
- Satisfy all requirements concerning Academic Progress.

A student must fulfill the following program requirements to be awarded the Master of Science in Engineering Management degree:

Course Requirements (35 credits)

Theory Course (4 credits)

Choose one course from the following:

- **ISE5430 EGR Ops Rsrch/Deterministic Engineering Operations Research - Deterministic Models (4 credits)**
- **ISE5431 Engr Ops Rsrch/Stochastic Mods Engineering Operations Research - Stochastic Models (4 credits)**
- **ISE5517 Stats Methods in Engineering Statistical Methods in Engineering (4 credits)**
- **ISE5434 Metamodel & Opt Mthd in Design Metamodeling and Optimization Methods in Design (4 credits)**
- **MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)**
- **STA5001 Stat Methods in Res and Prod Statistical Methods in Research and Production (4 credits)**
- **STA5003 Applied Linear Models II Applied Linear Models II (4 credits)**
- **SYS5404 Signal Linear Systems Analys Signal and Linear Systems Analysis (4 credits)**

Required Core Courses (8 credits)

Choose two courses from the following:

- **ISE5480 E-Commerce and ERP E-Commerce and ERP (4 credits) ***
- **ISE5485 Statistical Quality Analysis Statistical Quality Analysis (4 credits) ***
- **ISE5487 Foundations of Systems Engr Foundations of Systems Engineering (4 credits) ***
- **ISE5520 Engineering Project Management Engineering Project Management (4 credits)**
- **ISE5560 Product Lifecycle Management Product Lifecycle Management (4 credits)**
- **ISE6680 Engineering Decision Analysis Engineering Decision Analysis (4 credits)**

Program Courses (23 credits)

Group A Engineering Courses (8 credits)

- Select 8 credits of 5000- and/or 6000-level courses from the disciplines of ISE (excluding ISE 5001, 5002, and 5003), SYS, ECE, ME, or CSE (excluding CSE 5005, 5006, 5007, and 5008). Note that the satisfaction of the prerequisites for any given course on this list may depend upon the engineering discipline of the student's B.S. degree.

Group B Management Courses (12 credits)

Choose four courses from the following:

- **ACC5110 Financial Accounting Financial Accounting (3 credits)**
- **FIN5330 Financial Management Financial Management (3 credits)**
- **MGT5260 International Business International Business (3 credits)**
- **MGT5500 Legal Environment of Business Legal Environment of Business (3 credits)**
- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**

- **MKT5600 Marketing Management Marketing Management (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **POM5210 Operations Management Operations Management (3 credits)**

Group C elective Course (3 credits**)

- Any additional Required Core or Group B course (**3-4 credits**)
- Any 5000-level or higher ISE course (except ISE 5001, 5002 and 5003) (**2 to 4 credits**)
- **ACC5120 Managerial Accounting Systems Managerial Accounting Systems (3 credits)**
- **ECN5210 Economics for Managers Economics for Managers (3 credits)**
- **ORG6310 Strategic Human Resource Mgt Strategic Human Resource Management (3 credits)**
- **EHS5600 Applied System Safety Analysis Applied System Safety Analysis (3 credits)**

Master's Thesis

Although the engineering management master's degree requirements may be satisfied by taking only coursework, a master's thesis (**ISE6998 Master's Thesis Research**) may be included as part of the program in place of Group A courses.

Students electing a thesis option must accumulate 8 credits of **ISE6998 Master's Thesis Research**. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the Department of Industrial and Systems Engineering. The selection of the committee and the plan of study must be approved by the ISE Department chair.

The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval; however, a formal presentation of the proposal is not necessary. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Courses With Asterisks (*, **)

These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of a baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

* Some of the courses in this group may serve as prerequisites for above courses.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops

below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship

assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of the department.

For the convenience of part-time students employed in industry, courses are arranged in the evening, and some are also online. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the Department of Industrial and Systems Engineering who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of the department.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Software Engineering and Information Technology

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Software Engineering and Information Technology	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))
(248) 370-2200 • Fax (248) 370-4625
<http://www.cse.secs.oakland.edu/>

Coordinator:

Lanyu Xu
546 Engineering Center
(248) 370-4079
lxu@oakland.edu

Program Description

The Master of Science in Software Engineering and Information Technology degree program is designed to prepare students for significant computer-related careers in business and industry and, simultaneously, for further graduate study. This program consists of two concentrations: 1) Software Engineering and 2) Information Technology. The program offers a natural continuation of studies for students who have received a baccalaureate in software engineering, computer science, or information technology and are interested in furthering their technical knowledge. Under each concentration, the program offers two tracks: a research track and a professional track.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - Bachelor of Science in computer science, information technology, software engineering, computer engineering, or equivalent. Applicants from other disciplines would be considered after successfully completing appropriate prerequisite courses.

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in Software Engineering and Information Technology degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements (32 credits)

1. Research Track (32 credits)

The research track requires 32 credits including 8 credits of thesis to graduate. The structure of credits are as follows:

a. Core Requirements (16 credits)

Core requirements are divided into two: program core requirements and concentration core requirements. Student must complete 16 credits from the Core Group courses. A core course may be substituted by another CSE course with prior departmental approval provided the student has already taken an equivalent course. A course taken for program core requirement can not be counted for concentration core.

a. 1. Program Core Requirements (4 credits)

Choose one course from the following:

- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5430 IT Project Management IT Project Management (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**

a. 2. Concentration Core Requirements (12 credits)

SE Concentration

- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5350 Programng Languages Compilers Programming Languages and Compilers (4 credits)**
- **CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**

CSI5430 IT Project Management IT Project Management (4 credits)

IT Concentration

- **CSI5230 Android Application Developmen Mobile and Smart Phone Application Development (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5510 Adv Web Design & Application Adv Web Design Application (4 credits)**
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**

b. Depth Requirement (8 credits)

Students on a research track must complete a thesis for 8 credits.

- **CSI6998 Master's Thesis Research Master's Thesis Research (2 to 8 credits)**

c. Electives (8 credits)

Eight credits of electives should be completed. Electives may be selected from any specialty group.

A complete list of 5000- to 7000-level courses offered by the department is listed below.

Note: Courses listed under Miscellaneous do not form a specialty group. However, Special Topic courses (**CSI5900 Special Topics**, **CSI7900 Special Topics**) and maximum of four credits of Independent Study (**CSI5970 Independent Study**, **CSI7970 Independent Study**) can be taken as electives.

2. Professional Track (32 credits)

The professional track requires 32 credits to graduate. The structure of credits is as follows:

a. Core Requirements (16 credits)

Core requirements are divided into two: program core requirements and concentration core requirements. Students must complete 16 credits from the Core Group courses. A core course may be substituted by another CSE course with prior departmental approval provided the student has already taken an equivalent course. A course taken for program core requirement can not be counted for concentration core.

a. 1. Program Core Requirements (4 credits)

Choose one course from the following:

- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5430 IT Project Management IT Project Management (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**

a. 2. Concentration Core Requirements (12 credits)**SE Concentration**

- **CSI5150 AI for IT Operations AI for IT Operations (4 credits)**
- **CSI5200 Fundamentals/Software Modeling Fundamentals of Software Modeling (4 credits)**
- **CSI5220 Object Oriented Analy & Design Object Oriented Analysis and Design (4 credits)**
- **CSI5350 Programng Languages Compilers Programming Languages and Compilers (4 credits)**
- **CSI5370 Software Verification/Testing Software Verification and Testing (4 credits)**
- **CSI5390 Software Engineering Software Engineering (4 credits)**
- **CSI5410 Software Proj Plan/Mgmt/Maint Software Project Planning, Management and Maintenance (4 credits)**
- **CSI5700 Software Security Software Security (4 credits)**

IT Concentration

- **CSI5230 Android Application Developmen Mobile and Smart Phone Application Development (4 credits)**
- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5450 Database Systems I Database Systems I (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**

- **CSI5510 Adv Web Design & Application Adv Web Design Application (4 credits)**
- **CSI5810 Info Retrieval/Knowldg Discov Information Retrieval and Knowledge Discovery (4 credits)**
- **CSI5150 AI for IT Operations AI for IT Operations (4 credits)**

b. Depth Requirement (8 credits)

Students on the professional track must complete two courses (8 credits) from SE or IT specialty group.

c. Electives (8 credits)

Eight credits of electives should be completed. Electives may be selected from any specialty group.

A complete list of 5000- to 7000-level courses offered by the department is listed below.

Note: Courses listed under Miscellaneous do not form a specialty group. However, Special Topic courses (**CSI5900 Special Topics**, **CSI7900 Special Topics**) and maximum of four credits of Independent Study (**CSI5970 Independent Study**, **CSI7970 Independent Study**) can be taken as electives.

Complete list of 5000- to 7000-level courses offered by the department**Specialty Group Courses****1. Networking and Systems Group**

- **CSI5240 Cloud Computing Cloud Computing (4 credits)**
- **CSI5360 Concurrent/Multi-Core Prgmng Concurrent and Multi-Core Programming (4 credits)**
- **CSI5460 Information Security Information Security (4 credits)**
- **CSI5490 Wireless & Industrial Networks Wireless and Industrial Networks (4 credits)**
- **CSI5470 Computer Networks Computer Networks (4 credits)**
- **CSI5500 Operating Systems I Operating Systems I (4 credits)**
- **CSI6500 Operating Systems II Operating Systems II (4 credits)**
- **CSI6640 Parallel Computer Architecture Parallel Computer Architecture (4 credits)**

2. Embedded Systems Group

- **CSI5760 Embedded Syst Dsgn Using FPGAs Embedded Systems Design Using FPGAs (4 credits)**

3. Information Technology Group

- **CSI5230 Android Application Development** Mobile and Smart Phone Application Development (4 credits)
- **CSI5240 Cloud Computing** Cloud Computing (4 credits)
- **CSI5460 Information Security** Information Security (4 credits)
- **CSI5480 Information Security Practice** Information Security Practices (4 credits)
- **CSI5510 Adv Web Design & Application** Adv Web Design Application (4 credits)
- **CSI5780 Bioinformatics** Bioinformatics (4 credits)
- **CSI5810 Info Retrieval/Knowldg Discov** Information Retrieval and Knowledge Discovery (4 credits)
- **CSI5830 E-Commerce and ERP** E-Commerce and ERP (4 credits)
- **CSI6450 Database Systems II** Database Systems II (4 credits)

4. Software Engineering Group

- **CSI5200 Fundamentals/Software Modeling** Fundamentals of Software Modeling (4 credits)
- **CSI5300 Software Prototypg/Validation** Software Prototyping and Validation (4 credits)
- **CSI5370 Software Verification/Testing** Software Verification and Testing (4 credits)
- **CSI5390 Software Engineering** Software Engineering (4 credits)
- **CSI5430 IT Project Management** IT Project Management (4 credits)
- **CSI5420 Rapid Proto & Compont Software** Rapid Prototyping and Component Software (4 credits)
- **CSI5700 Software Security** Software Security (4 credits)

5. Intelligent Computing Group

- **CSI5130 Artificial Intelligence** Artificial Intelligence (4 credits)
- **CSI5430 IT Project Management** IT Project Management (4 credits)
- **CSI5550 Visual Computing** Visual Computing (4 credits)
- **CSI5810 Info Retrieval/Knowldg Discov** Information Retrieval and Knowledge Discovery (4 credits)
- **CSI5170 Machine Learning** Machine Learning (4 credits)
- **CSI6550 Advanced Visual Computing** Advanced Visual Computing (4 credits)

- **CSI5140 Deep Learning and Applications** Deep Learning and Applications (4 credits)
- **CSI5110 Foundations of Edge AI** Foundations of Edge AI (4 credits)
- **CSI5900 Special Topics ST: AI-Human Interaction** (4 credits)
- **CSI5180 Natural Language Processing** Natural Language Processing (4 credits)
- **CSI5150 AI for IT Operations** CSI 5150 - AI for IT Operations (4 credits)

Miscellaneous

- **CSI5970 Independent Study** Independent Study (1 TO 4 credits)
- **CSI5900 Special Topics** Special Topics (1 TO 4 credits)
- **CSI5950 Professional Practice** Professional Practice (2 TO 4 credits)
- **CSI6998 Master's Thesis Research** Master's Thesis Research (2 to 8 credits)
- **CSI7970 Independent Study** Independent Study (1 to 4 credits)
- **CSI7900 Special Topics** Special Topics (2 TO 4 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course Approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, a master's thesis or special topics courses that are used toward the degree. In

addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course Credit

Graduate credit is awarded only for courses numbered 5000 or higher. Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of an OU slash course (4000/5000 course) cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements.

Workload and Scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, most courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's Adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's Project or Thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**CSI6996 Graduate CSE Project**) or a directed master's thesis research (**CSI6998 Master's Thesis Research**) may be included as part of the program in place of elective courses.

Students electing a thesis option must accumulate a minimum of 8 credits of CSI 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval at least one semester before graduation. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Information Technology/Software Engineering and Information Technology

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Information Technology/ Software Engineering and Information Technology	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined BS/MS in Information Technology (BS) and Software Engineering and Information Technology (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Information Technology major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall

undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

**To be eligible for the Information Technology/
Software Engineering and Information Technology,
Combined B.S. to M.S. option, students must:**

1. Have a major GPA of 3.2 or above.
2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of 3 graduate classes (12 credits)
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Information Technology**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Embedded Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Embedded Systems	Major

Program Type

Master

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

32

Delivery Method Required

in Person

**Summer
Semesters**

0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Graduate Student Coordinator

Daniel Llamocca

438 Engineering Center

(248)370-4042

llamocca@oakland.edu

Program Coordinator

Brian Dean

446A Engineering Center

(248) 370-2822

bkdean@oakland.edu

Program Description

The Master of Science in Embedded Systems (ES) degree program is designed to prepare students for significant embedded computer-related careers in the automotive industry, consumer electronics, and other areas. It is designed for students with a baccalaureate degree in computer engineering, computer science, electrical, electronic or communication engineering who want to strive for a balance of theory, hardware and software in computer system design. A degree in another field may be acceptable but remedial coursework may be required to overcome deficiencies.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Recommendation for Graduate Admission form: Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant has a degree from a U.S. institution accredited by a regional accrediting agency.
 - Applicant's overall GPA from last degree is at least 3.0 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
 - B.S. or equivalent degree in computer engineering, computer science, or electrical, electronic or communication engineering. Applicants without a background in digital logic and microprocessor-based systems will be asked to take **ECE5710 Computer Hardware Design** and **ECE5731 Fund of Embedded Sys Design** before taking any other courses

- Admission to master's program is selective; applicants should have an undergraduate GPA of 3.0 on a 4.0 scale or better for regular admission.
- If the applicant's undergraduate GPA is between 2.7 and 3.0 on a 4.0 scale, admission with limited standing may be offered. For applicants graduated from an institution not accredited by a regional accrediting agency of the USA, a 70% or better percentile score of the GRE Quantitative Reasoning section is required.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department

Degree Requirements

To fulfill the requirements for a Master of Science degree in Embedded Systems, a student must:

- Complete at least 32 credits of graduate-level work, of which at least 24 credits must be in approved courses offered by the School of Engineering and Computer Science
- Earn a cumulative GPA of at least 3.0 in courses applied toward the degree
- Complete the requirements specified for the program in embedded systems
- Satisfy all requirements concerning academic progress.

The degree requirements may be satisfied by taking only coursework. However, a graduate engineering project (**ECE6996 Graduate Engineering Project**) or master's thesis research (**ECE6998 Master's Thesis Research**) provides a unique and valuable learning experience in which an individual student works with a faculty member in an area of mutual interest. Therefore, students are encouraged to include such an experience as their program permits.

Students must fulfill the following program requirements to be awarded the Master of Science in Embedded Systems:

Course requirements (32 credits)

a. Core course requirements (16 credits)

Choose four courses from the following:

- **ECE5710 Computer Hardware Design** Computer Hardware Design (4 credits) *

- **ECE5721 Embedded Systems Design** Embedded Systems Design (4 credits) *
- **ECE5734 Embed Sys Verif & Validation** Embedded System Verification and Validation (4 credits)
- **ECE5740 Embedded AI** Embedded Artificial Intelligence (4 credits) *
- **ECE5415 Microcomp-Based Control Sys** Microcomputer-Based Control Systems (4 credits) *
- **ECE5772 High Performance Embed Prog** High Performance Embedded Programming (4 credits) *
- **CSI5640 Computer Architecture** Computer Architecture (4 credits)

b. Depth area courses (12 credits)

Choose three courses from the following:

- **ECE5132 VLSIC Design of Digital Chips** VLSIC Design of Digital Chips (4 credits) *
- **ECE5760 Embedded Sys Design w/FPGAs** Embedded System Design with FPGAs (4 credits)
- **ECE5736 Reconfigurable Computing** Reconfigurable Computing (4 credits)
- **ECE5770 GPU Accelerated Computing** GPU Accelerated Computing (4 credits)
- **ECE5780 Embedded Security** Embedded Security (4 credits) *
- **ECE6712 Parallel Embed Comp Architec** Parallel Embedded Computer Architecture (4 credits)
- **ECE6740 Adv Embedded Sys Design** Advanced Embedded System Design (4 credits)
- **ECE6742 DSP in Embedded Systems** DSP in Embedded Systems (4 credits)
- **ECE6745 Real-Time Computing Systems** Real-Time Computing Systems (4 credits)
- **ECE6760 Safety Crit Embedded Systems** Safety Critical Systems (4 credits)
- **ECE6996 Graduate Engineering Project** Graduate Engineering Project (1 TO 4 credits) **
- **ECE6998 Master's Thesis Research** Master's Thesis Research (2 TO 8 credits) ***
- **CSI5130 Artificial Intelligence** Artificial Intelligence (4 credits)

c. Electives (4 credits)

Four credits of electives can be chosen from any 5000- or 6000-level ECE or CSI courses, except for ECE 5731.

Courses with asterisks (*, **, ***)

* These courses are cross-listed as advanced undergraduate and graduate courses. If completed as a 4000-level course or equivalent as part of baccalaureate degree, the course may be used to offset graduate program requirements. However, credit will not then be awarded and must be earned by completion of an approved substitute course.

** At most 4 credits of **ECE5970 Independent Study** and **ECE6996 Graduate Engineering Project** can be used toward the degree.

*** A minimum of 8 credits are required for master's thesis (**ECE6998 Master's Thesis Research**).

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: The minimum satisfactory grade for graduate work is B. Credit for completion of a course in the Master of Science program will be given for grades of B- or above but no more than two grades may be B-. Graduate credit will not be awarded for grades below B-. To repeat a course, a student must have the permission of the graduate committee of the school.

All grades received as a graduate student are used in computing the GPA except that, if a course has been repeated, the most recent grade is used in the calculation of the GPA. A graduate student is placed on academic probation if the student's overall GPA drops below 3.0 or if the student receives more than one grade below B, including the original grade(s) of any repeated course(s). A graduate student receiving a grade less than B while on probation is subject to dismissal. A graduate student receiving more than two grades below B is subject to dismissal whether or not the student was put on probation previously.

In all programs the minimum grade point requirement is an average of at least 3.0. If a student's GPA is less than 3.0 after having attempted 16 credits, the student will be recommended for dismissal from the program.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Course approval

Approval by the master's degree adviser and the department chair is required for independent study, engineering projects, master's thesis or special topics courses that are used toward the degree. In addition, approval of the faculty administering the independent study, advising the thesis or project or teaching the special topics course must be obtained before registering for these credits.

Course credit

Course credit will not be awarded for work applied toward another degree. Students who have received credit for the 4000-level version of a cross-listed senior/graduate course cannot receive credit toward a graduate degree for the 5000-level version of that course.

No more than 8 thesis or project credits may be used toward the degree requirements

Workload and scheduling

Full-time students must register for 8 to 12 credits per semester. Graduate assistants must be full-time students and commit 20 hours per week toward their research or teaching assistantship assignment. Graduate assistants normally register for only 8 credits per semester; however, a 12-credit load can be taken with the approval of the chair of their department.

For the convenience of part-time students employed in industry, courses are arranged in late afternoon and early evening. However, these students should be aware of the very real demands of graduate studies and should keep outside work commitments and their academic load in balance.

Master's adviser

The progress of each regular student toward the Master of Science degree is directed by the student's adviser, a faculty member of the School of Engineering and Computer Science who is assigned at the time of admission. Incoming students seeking the degree are urged to discuss their proposed concentration area with their adviser or other faculty members in that area. Students who wish to change their adviser can do so with the approval of the chair of their department.

Master's project or thesis

Although the master's degree requirements may be satisfied by taking only coursework, either a graduate engineering project (**ECE6996 Graduate Engineering Project**) or a directed master's thesis research (**ECE6998 Master's Thesis Research**) may be included as part of the program.

Students electing a thesis option must accumulate a minimum of 8 credits of ECE 6998. Successful completion and defense of a thesis is a prerequisite for earning thesis credits. Students choosing the thesis option must select an advisory committee, which is composed of at least three faculty members from the School of Engineering and Computer Science. The selection of the committee and the Plan of Study must be approved by the department chair. The chair (major professor) of the advisory committee will direct and guide the research. The student must propose a research topic to the committee for approval; however, a formal presentation of the proposal is not necessary. The completed thesis must conform to university standards (see **Thesis and Dissertation**). At the completion of the research and its documentation, the content of the thesis must be publicly presented and defended. Successful defense of the thesis is a prerequisite for earning the research credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechatronics and Robotics Engineering/Embedded Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Mechatronics and Robotics Engineering/ Embedded Systems	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Compnr Engineering

Credit Total

153

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined BSE/MS in Mechatronics and Robotics Engineering (BSE) and Embedded Systems (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Mechatronics and Robotics Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in MRE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count

towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Mechatronics and Robotics Engineering, B.S.E./Embedded Systems, M.S. option, students must:

1. Have achieved Major Standing in Mechatronics and Robotics Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Mechatronics and Robotics Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Please note that the Embedded Systems, M.S. program only allows for a single 4-credit elective course.

Subject	Number	Title	Credits	Undergraduate (Each course c
CSI	5130	Artificial Intelligence	4	• Elec Cou Inter Con • Elec Cou Rob Con
CSI	5810	Information Retrieval and Knowledge Discovery	4	• Elec Cou Inter Con • Elec Cou Rob Con
ECE	5134	Fundamentals of MEMS	4	• Prof Dep • Elec Mec Con
ECE	5415	Microcomputer-based Control Systems	4	• Prof Dep • Req Autc Mec Con • Elec Vehi Con • Elec Rob Con

ECE	5500	Robotic Systems and Control	4	• Prof Dep • Req Cou Rob Autc Con • Req Cou Rob • Elec Cou Inter Con
ECE	5510	Machine Vision	4	• Prof Dep • Req Cou Vehi Con • Req Cou Rob Autc Con • Elec Mec Con • Elec Inter • Elec Rob Con
ECE	5520	Automotive Mechatronics I	4	• Prof Dep • Req Autc Mec Con • Elec Vehi Con • Elec Driv Pow

ECE	5532	Autonomous Vehicle Systems I	4	• Prof Dep • Req Cou Vehi Con • Req Cou Mec Con • Elec Inter
ECE	5551	Human Robot Interaction	4	• Prof Dep • Req Cou Inter Con • Elec Cou Rob Auto • Elec Cou Rob
ECE	5630	Electric and Hybrid Drive Systems	4	• Prof Dep • Req Cou and
ECE	5640	Battery Management Systems	4	• Prof Dep • Req Cou and
ECE	5740	Embedded Artificial Intelligence (AI)	4	• Prof Dep • Req Cou Vehi Con • Req Cou Rob Con • Elec Inter

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

MSSM in Safety Management and MBA

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	MSSM in Safety Management and MBA	Major

Program Type

Dual Degree

College/School

School of Health Sciences

Department(s)

Public and Environ Wellness

Credit Total

56

Delivery Method Required

Fully Online

Summer Semesters

3

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd • (248) 370-3562 • Fax (248) 364-8657 ([map](#))<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Program Director

Darryl Hill, Lecturer
dhill@oakland.edu

Graduate Business Programs

238 Elliott Hall ([map](#))(248) 370-3287 [POM6430](#)OUgradbusiness@oakland.edu<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull
238B Elliott Hall
(248) 370-3287
trumbull@oakland.edu

Program Delivery

The Dual MSSM in Safety Management and MBA degree program is delivered fully online at in-state rates for both residents of Michigan and non-resident students.

Program Description

The Dual MSSM/MBA degree program requires completion of 56 credits, depending on the student's academic background. Students in the dual-degree program benefit from double-counting 15 credits

(5 classes) toward both the MSSM and the MBA degrees (see below). The final credit total is determined at the time of admission and applicants with prior business coursework may be eligible for waiver of one 3-credit MBA core class.

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)

Additional department application requirements

[MS Safety Management Admission Requirements](#)[MBA Admission Requirements](#)

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department. Acceptance in both the Master of Science in Safety Management program and the MBA is required to be admitted into the MSSM-MBA program.

Academic Advising

Students who are considering applying to the Master of Science in Safety Management program may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Degree Requirements

The MSSM-MBA degree will be awarded upon satisfactory completion of 56 credits in an approved MBA program of study. The dual-degree MSSM-MBA students may also elect to get an MBA concentration by taking MBA courses that satisfy the 9-credit requirement of that concentration. They may also choose electives from the MBA-STEM program and earn the MBA-STEM degree.

Course Requirements

a. Core Requirements for Dual Degree (56 credits)**Fall 1 | Winter 1 | Summer 1**

- **QMM5100 Quantitative Methods for Managers (3 credits)***
- **EHS5400 Risk Assessment and Loss Control (3 credits)**
- **EHS5000 Introduction to EHS Research (4 credits)**
- **POM5210 Operations Management (3 credits)***
- **EHS5200 Advanced Safety and Health Administration (3 credits)**
- **MGT5500 MGT 5500 - Legal Environment of Business (3 credits)***

Fall 2 | Winter 2 | Summer 2

- **ACC5110 Financial Accounting (3 credits)***
- **ORG5300 Organizational Behavior (3 credits)***
- **EHS5600 Applied System Safety Analysis (3 credits)**
- **ORG6310 Strategic Human Resources Management (3 Credits)**
- **ACC5120 Managerial Accounting Systems (3 credits)**
- **EHS6996 Capstone Course (4 credits)**

Fall 3 | Winter 3 | Summer 3

- **FIN5330 Financial Management (3 credits)**
- **MGT5260 International Business (3 credits)**
- **MIS5240 Enterprise Information Systems (3 credits)**
- **MKT5600 Marketing Management (3 credits)**
- **MGT5350 Policy, Strategy & Goals Policy, Strategy, and Goals (3 credits)**
- **ECN5210 Economics for Managers (3 credits)**

Satisfactory Progress

Satisfactory Academic Progress is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework or fail to achieve minimum standards for grade point average and completion of classes may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In accordance with the university requirements for graduate students, a grade-point average of 3.0 is required for graduation. Students, therefore, should maintain at least a 3.0 GPA. Students may be dismissed if they do not maintain a GPA of 3.0 or appropriate progress toward the degree as determined by the Office of Graduate Business Programs. Any course resulting in a grade below 2.0 must be repeated.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information**Plan of Study**

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

If more than six years have passed since the student has been admitted to the MBA-MSSM program, and all requirements have not been completed, the student must petition the program coordinator and Oakland University Graduate School for an extension. Students who are deemed inactive may be dropped from the program, although they may petition for reinstatement.

All graduate certificate students are expected to complete their degree within the **Program Policy** for time limit established by the University.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Safety Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Safety Management	Major

Program Type

Master

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

35

Delivery Method Required

Fully Online

Summer Semesters

2

Requirements

Program Requirements

Department of Public and Environmental Wellness

433 Meadow Brook Rd • (248) 370-3562 • Fax (248) 364-8657 ([map](#))
<https://www.oakland.edu/shs/public-and-environmental-wellness/mssm/>

Program Director

Darryl Hill, Lecturer

dhill@oakland.edu

Program Delivery

The Master of Science in Safety Management degree program is delivered fully online at in-state rates for both residents of Michigan and non-resident students.

Program Description

The Master of Science in Safety Management focuses on occupational safety, health, and environmental issues in the workplace. Through an effective balance of health and safety classes, business administration coursework, and application of the developed skills to safety-related case studies, students develop the analytical tools and skills necessary for making sound health and safety decisions in industry and business.

The program consists of two concentrations: a Technical concentration and a Management concentration. The Technical concentration is designed for those looking to enter the field, while the Management concentration is intended for those with a safety-related bachelor's degree-seeking to advance their education and career.

The Technical concentration provides a gateway into the field by focusing on occupational health and safety in the workplace. Students take courses related to occupational hygiene, safety, standards, and more in addition to core courses in areas such as safety administration and analysis, research, and risk management/loss control.

The Management concentration focuses on the business aspects of managing safety in the workplace through business administration coursework with application to safety. In addition to core courses in areas such as safety administration and analysis, research, and risk management/loss control, students take business courses in accounting, human resources and legal aspects of business, and more.

The Master of Science in Safety Management is accredited by the **Applied and Natural Science Accreditation Commission of ABET**.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

Additional department application requirements

Management Concentration

- **The Management concentration is designed for both recent college graduates and in-service safety professionals.** Applicants must have:
 1. Earned a bachelor's degree in environmental health and safety (EHS) or occupational safety and health (OSH) or;
 2. Earned a bachelor's degree and have four years of professional occupational safety and health (OSH) related work experience or;

3. Earned a bachelor's degree and completed 22 credit hours of undergraduate prerequisite Oakland University EHS and natural science coursework listed below:

- EHS 2250; EHS 2350; EHS 3300; EHS 3380; EHS 3350; EHS 4410 and CHM 2010 or PHY 1010 or PHY 1200 or equivalent.
- Earned bachelor's degrees considered for admission must be from regionally-accredited institutions of higher education.
- Three (3) letters of recommendation from an academic instructor.
- Applicants should have a minimum undergraduate GPA of 3.0.

Technical Concentration

The Technical concentration is designed for college graduates without a prior safety-related degree or work experience.

- Applicants must have:
 1. Earned a bachelor's degree from a regionally-accredited institution of higher education and completed the following:
 - Prerequisite requirements for the Technical concentration:
 1. Six (6) credits hours of undergraduate Oakland University EHS coursework in the following:
 1. EHS 2250 - EHS Training Methods
 2. EHS 3380 - EHS Engineering and Technology and;
 2. Undergraduate course (one each) in the following courses:
 1. CHM 2010 - Intro to Organic and Biological Chemistry (or equivalent)
 2. PHY 1200 - Physics of Everyday Life (or equivalent)
 3. BIO 1002 - Human Biology (or equivalent)
 3. MIOSHA Training Institute Level 2 Safety and Health Management Systems Certificate
 1. Students must have completed or be enrolled in the certificate program.
 2. Certificate recipients are eligible for undergraduate competency credit for 3 courses (EHS 2350, EHS 3300, and EHS 4410)
 - 2. Applicants should have a minimum undergraduate GPA of 3.0.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Master of Science in Safety Management program may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Degree Requirements

The Master of Science in Safety Management degree is awarded upon satisfactory completion of a minimum of 35 credits in an approved program of study. Students must complete the following courses then select and complete the required courses from either the Technical or Management Track or the Technical Concentration.

Core Requirements (23 credits)

- **EHS5000 Introduction to EHS Research Introduction to EHS Research (4 credits)**
- **EHS5200 Advanced Safety/Health Admin Advanced Safety and Health Administration (3 credits)**
- **EHS5400 Risk Assessment/Loss Control Risk Assessment and Loss Control (3 credits)**
- **EHS5600 Applied System Safety Analysis Applied System Safety Analysis (3 credits)**
- **EHS6996 Capstone Course Capstone Course (4 credits)**
- **POM5210 Operations Management Operations Management (3 credits)**
- **QMM5100 Quantitative Methods for Mgrs Quantitative Methods for Managers (3 credits)**

Technical Concentration

Course Requirements (12 credits)

- **EHS5100 Fundamentals of Occ Hygiene Fundamentals of Occupational Hygiene (3 credits)**
- **EHS5420 Construction Safety Construction Safety (3 credits)**
- **EHS5440 Environmental Standards Environmental Standards (3 credits)**
- **EHS5450 Ergonomics Ergonomics (3 credits)**

Management Concentration

Course Requirements (12 credits)

- **ACC5110 Financial Accounting Financial Accounting (3 credits)**
- **MGT5500 Legal Environment of Business Legal Environment of Business (3 credits)**

- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **ORG6310 Strategic Human Resource Mgt Strategic Human Resource Management (3 credits)**

Satisfactory Academic Standing

Satisfactory Academic Progress is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

If more than six years have passed since the student has been admitted to the MSSM program, and all requirements have not been completed, the student must petition the program coordinator and Oakland University Graduate School for an extension. Students who are deemed inactive may be dropped from the program, although they may petition for reinstatement.

All graduate certificate students are expected to complete their degree within the **Program Policy** for time limit established by the University.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Environmental Health and Safety/
Safety Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MSSM	Environmental Health and Safety/ Safety Management	Major

Program Type

Combined Program

College/School

School of Health Sciences (HS)

Department(s)

Public and Environ Wellness

Credit Total	Delivery Method	Required Summer Semesters
145	In Person	0

Requirements

Program Requirements

The Environmental Health and Safety Combined B.S. - MSSM degree plan is a bachelor/master degree program that provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently. Participants can graduate with a Master of Science in Safety Management degree in approximately one calendar year after completing a B.S. in Environmental Health and Safety. Students in this program complete 10 graduate level credits at undergraduate tuition rates. Students who have a minimum overall undergraduate GPA of 3.2 and have earned a 3.0 or above GPA in each of the 10-credits of graduate courses will be reclassified as a graduate student through Graduate Study.

Requirements for the Environmental Health and Safety, B.S. - MSSM Degree Plan

Students seeking the Combined B.S. - MSSM degree plan must complete a minimum 120 credits, including the following requirements:

1. Meet the university general education requirements

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Each candidate for an Oakland University baccalaureate will need to satisfactorily complete approved courses in each of the following areas: Foundation, Exploration, Integration, Writing, U.S. Diversity and Capstone. For details, refer to the [General Education Requirements](#) section of the catalog.

2. Complete the Environmental Health and Safety required credits

- [BIO1002 Human Biology](#) Human Biology (4)
or [BIO1200 Biology I](#) Biology I (4)
- [CHM1040 Intro to Chemical Principles](#) Introduction to Chemical Principles (4)
- [CHM2010 Intro Organic and Biochemistry](#) Introduction to Organic and Biological Chemistry (4)
- [EHS1100 Healthy Workplace: Ppl and Env](#) Healthy Workplace: Protecting People and the Environment (3)
 - In lieu of [EHS1100 Healthy Workplace: Ppl and Env](#), students may substitute [EHS1000 Introduction to EHS](#) or [EHS1150 Env Health and Safety at Work](#)
- [EHS2250 Env Health and Safety Training](#) Environmental Health and Safety Training Methods (3)
- [EHS2350 Occupational Safe and Hlth Std](#) Occupational Safety and Health Standards (3)
- [EHS2450 Professional Practice](#) Professional Practice and Leadership Development (3)
- [EHS2550 Basic Statistics for HS](#) Basic Statistics for Health Sciences (3)
or [STA2220 Intro to Statistical Concepts](#) Introduction to Statistical Concepts and Reasoning (4)
- [EHS3300 EHS Adm and Programs](#) Safety and Health Administration and Programs (3)
- [EHS3330 Fire Prevention and Protect](#) Fire Prevention and Protection (3)
- [EHS3380 EHS Safety I: Eng and Technolo](#) Environmental Health and Safety Engineering and Technology (3)
- [EHS4100 Fundamentals of Occ Hygiene](#) Fundamentals of Occupational Hygiene (3)
- [EHS4200 Appl. Envir. Occupational Hyg.](#) Applied Environmental and Occupational Hygiene (4)
- [EHS4410 Accid/Incident Inv and Analys](#) Accident/Incident Investigation and Analysis (3)
- [EHS4420 Construction Safety](#) Construction Safety (3)
- [EHS4430 Robotic and Automation Safety](#) Robotic and Automation System Safety Analysis (3)
- [EHS4440 Environmental Standards](#) Environmental Standards (3)

- [EHS4450 Ergonomics](#) Ergonomics (3)
- [EHS4460 Industrial Toxicology](#) Industrial and Environmental Toxicology (3)
- [EHS4550 Env Controls](#) Environmental Pollution and Controls (3)
- [EHS4950 EHS Internship](#) Environmental Health and Safety Capstone Course Internship (4)
 - may only be taken with permission of the EHS Program Director
- [HS2000 Intro Hlth & Hlth Behaviors](#) Introduction to Health and Health Behaviors (3) and [HS2050 Int Hlth & Hlth Behav Lrn Lab](#) Introduction to Health and Health Behaviors Learning Lab (1)
- [PHY1200 Physics of Everyday Life](#) The Physics of Everyday Life (4)
or [PHY1010 General Physics I](#) General Physics I (4)
- [PSY1000 Introduction to Psychology](#) Introduction to Psychology (4) *
- [MGT1100 Contemp World Business](#) Contemporary World Business (4) *
- [WRT3082 Business Writing](#) Business Writing (4)

Note

Courses above with * after them also satisfy university general education requirements

3. Complete a minimum of 14 credits of electives

- [EHS3310 Health Care Safety](#) Health Care Safety (4)
- [EHS3340 Hospital Safety and Health](#) Hospital Safety and Health (4)
- [EHS3510 Noise Control and Measurement](#) Noise Control and Measurement (2)
- [EHS4230 Radiation Safety](#) Radiation Safety (3)
- [EHS4340 Ventilation Tech](#) Ventilation and Emerging Technologies (4)
- [EHS4350 Radiation Exposure Control](#) Radiation Exposure Control (2)
- [EHS4998 Env Hlth and Saf Undergrad Res](#) Environmental Health and Safety Research (3)
- [ENV3540 Global Environmental Governanc](#) Global Environmental Governance (4)
or [PS3730 Global Environmental Governanc](#) Global Environmental Governance (4)
- [HRD3100 Introduction to HRD](#) Introduction to Human Resource Development (4)
- [HRD3210 Group/Team Devel and Ldrshp](#) Group/Team Development and Leadership (4)

- **HRD3300 Instructional Design & Devel Instructional Design and Development (4)**
- **HRD3440 Intro to Labor and Employment Introduction to Labor and Employment Relations (4)**
- **HRD3445 Intro to Pub Sect Lab/Emp Rel Introduction to Public Sector Labor and Employment Relations (4)**
- **HRD3530 Workforce Diversity Workforce Diversity (4)**
- **HRD4410 Study of Labor and Work Org The Study of Labor and Work Organizations (4)**
- **HRD4441 Advanced Work and the Law Advanced Work and the Law (4)**
- **MGT3000 Survey of Management Survey of Management (3)**
- **PH3000 Intro to Public Health Introduction to Public Health (3) ***
- **PHL1300 Introduction to Ethics Introduction to Ethics (4)**
- **POM3000 Survey of Operations Mgmt Survey of Operations Management (3)**
- **WRT1050 Composition I Composition I (4)**

*or any other course approved by the program director in writing through the approved petition of exception form

Graduate Courses:

- **EHS5200 Advanced Safety/Health Admin Advanced Safety and Health Administration (3)**
- **EHS5400 Risk Assessment/Loss Control Risk Assessment and Loss Control (3)**
- **EHS5000 Introduction to EHS Research Introduction to EHS Research (4)**

Note

If a student has a minimum overall GPA of 3.2, has at least junior standing, the student may apply to the Combined BS - MSSM program through the graduate office. Qualified applicants will be given a delayed admission to the MSSM program. (Full, formal admission will not take place until the student successfully completes their undergraduate degree with an overall GPA of 3.2).

A student accepted into the combined degree program continues his or her undergraduate degree with the substitution of three graduate courses as shown above.

Please note that students must be accepted into the combined degree program before taking any graduate level courses.

If a combined degree program student has successfully graduated with a BS degree and an overall GPA of 3.2, he or she is fully admitted to graduate MSSM program.

See graduate catalog for additional requirements for the combined B.S. - MSSM program.

All university and departmental requirements for the bachelor's and master's degree must be satisfied to earn both degrees. The full number of credit hours required for the bachelor's and master's degree must be completed; this includes the 10-credit hours of graduate courses completed as an undergraduate and approved to count towards the undergraduate and graduate degree requirements.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Clinical and Diagnostic Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Clinical and Diagnostic Science	Major

Program Type

Master

College/School

School of Health Sciences (HS)

Department(s)

Clinical and Diagnostic Sci

Credit Total

30

Delivery Method Required

partially online

Summer Semesters

0

Requirements

Program Requirements

Department of Clinical and Diagnostic Science

433 Meadow Brook Rd

(248) 370-2369 • Fax (248) 364-8657 ([map](#))<https://www.oakland.edu/shs/clinical-and-diagnostic-sciences/>

Department of Clinical and Diagnostic Science

433 Meadow Brook Rd

(248) 370-2369 • Fax (248) 364-8657 ([map](#))

Program Description

The Master of Science in Clinical and Diagnostic Sciences (CDS) degree program allows healthcare professionals to obtain additional training and develop critical thinking skills in order to advance in their profession. The program offers both a traditional Master of Science degree path and a professional development concentration.

The traditional Master of Science in CDS degree is intended for clinical and diagnostic sciences students to gain experience in clinical laboratory research.

The Master of Science in CDS with Professional Development Concentration is designed for students who already have their Medical Laboratory Sciences (MLS) certification or similar healthcare-related certification seeking to enter management or administrative positions within the workplace.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, personal statement, recommendation forms, prerequisite courses and any other admission requirements established by the academic department.

Academic Advising

Students who are considering applying to the Master of Science in Clinical and Diagnostic Sciences program may contact the academic adviser for the School of Health Sciences to review prerequisite courses and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Prerequisite Courses

Students in the traditional master of science program must have a bachelor's degree from a regionally accredited university, and the following prerequisite courses (or equivalent).

- Biology I
- Physiology
- Microbiology
- College Algebra

The minimum grade of B (3.0) must be earned in each prerequisite course. All prerequisite courses must be completed at the time of application.

Degree Requirements

To fulfill the requirements for the Master of Science in Clinical and Diagnostic Sciences, a student must successfully complete 30 credits in an approved program of study, and maintain an overall GPA of 3.0 or above. No individual course grade below C (2.0) may be applied toward a graduate degree.

Course Requirements (30 credits)

Core Courses (8 credits)

Required courses (8 credits):

- **CDS5200 Literature Review Literature Review (1 credit)**
- **CDS6300 Molecular & Cellular Pathology Molecular and Cellular Pathology (3 credits)**
- **PH5410 Biostatistical Method/Pub Heal Biostatistical Methods in Public Health (3 credits)**
- **PH5411 Biostatistical Methods/PH Lab Biostatistical Methods in Public Health Laboratory (1 credit)**

1. Master of Science in Clinical Diagnostic Sciences curriculum course requirements (22 credits)

In addition to the completing the core curriculum requirements, students pursuing the MS in CDS traditional degree path must complete the following requirements:

a. Electives, choose 19 credits from the following:

- **CDS5000 Medical Genetics Medical Genetics (4 credits)**
- **CDS5020 Molecular Diagnostics Molecular Diagnostics (3 credits)**
- **CDS5030 Histopathology Histopathology (4 credits)**
- **CDS5050 Pharmacology Pharmacology (3 credits)**
- **CDS5240 Immunohematology Immunohematology (3 credits)**
- **CDS5350 Parasitology Mycology Virology Clinical Parasitology, Mycology and Virology (3 credits)**
- **CDS5400 Clinical Correlations Clinical Correlations (3 credits)**
- **CDS5700 Medical Endocrinology Medical Endocrinology (4 credits)**
- **CDS5800 Laboratory Management Laboratory Management (3 Credits)**
- **CDS5900 Special Topics Special Topics (1 to 4 credits)**
- **CDS5929 Directed Readings Directed Readings (1 to 3 credits)**
- **CDS5995 Directed Research Directed Research (1 to 4 credits)**
- **CDS5996 Independent Study Independent Study (1 to 3 credits)**
- **EXS5000 Introduction To Research Introduction to Research (4 credits)**
- **EXS5600 Health And Disease Health and Disease (2 credits)**

b. Capstone (3 credits)

- **CDS6000 CDS Capstone Clinical and Diagnostic Sciences Capstone (3 credits)**

2. Master of Science in Clinical Diagnostic Sciences Professional Development Concentration curriculum course requirements (22 credits)

The Professional Development concentration is for students with a previous MLS certification or certification in a related field. In addition to the completing the core curriculum requirements, students pursuing the professional development concentration path must complete the following requirements:

a. Concentration courses, choose 13 credits from the following:

- **CDS5800 Laboratory Management Laboratory Management (3 credits)**
- **PA5100 Foundations of Public Admin Foundations of Public Administration (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **PH5700 Health Policy and Management Health Policy and Management (4 credits)**

b. Electives, choose 6 credits from the following:

- **ED7500 Contemporary American High Ed Contemporary American Higher Education (4 credits)**
- **EL6300 Theories/Techniques of Ldrshp Theories and Techniques of Leadership (4 credits)**
- **EXS5600 Health And Disease Health and Disease (2 credits)**
- **PA5500 Non-Profit Orgnztn & Mgt Nonprofit Organization and Management (3 credits)**
- **PH5000 Fndations Hlth Behav/Hlth Ed Foundations of Health Behavior and Health Education (4 credits)**
- **PH5650 Social Determinants of Health Social Determinants of Health (4 credits)**
- **PH5500 Introduction to Epidemiology Introduction to Epidemiology (4 credits)**
- **HRD6801 Intro of Lean Leadership I Introduction and Theories of Lean Leadership I (4 credits)**
- **HRD6950 Lean Leadership Intern I Lean Leadership Internship I (2 credits)**

c. Capstone (3 credits)

- **CDS6000 CDS Capstone Clinical and Diagnostic Sciences Capstone (3 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Time Limits

All graduate certificate students are expected to complete their degree within the time limit listed in **Program Policy established by the University**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Medical Laboratory Science, B.S./Clinical and Diagnostic Sciences, M.S., Combined B.S./M.S.

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Medical Laboratory Science, B.S./Clinical and Diagnostic Sciences, M.S., Combined B.S./M.S.	Major

Program Type

Combined Program

College/School

School of Health Sciences (HS)

Department(s)

Clinical and Diagnostic Sci

Credit Total

138

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

This combined bachelor/master degree program provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently. Participants can graduate with a Master of Science in Clinical and Diagnostic Sciences in approximately one calendar year after completing a B.S. in Medical Laboratory Science. Students in this program complete 12 graduate level credits at undergraduate tuition rates. Students who have earned a 3.0 or above GPA in each of the 12-credits of graduate courses will be reclassified as a graduate student through Graduate Study.

Requirements for the Medical Laboratory Science, B.S./Clinical and Diagnostic Sciences, M.S., Combined B.S./M.S.

Students seeking the Combined B.S./M.S. degree plan must complete a minimum of 120, including the following requirements:

1. Meet the university General Education requirements

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an Undergraduate Academic Adviser concerning the selection of all of their General Education courses.

Each candidate for an Oakland University baccalaureate will need to satisfactorily complete approved courses in each of the following areas: Foundation, Exploration, Integration, Writing, U.S. Diversity and Capstone. For details, refer to the [General Education Requirements](#) section of the catalog.

2. Complete the Clinical and Diagnostic Sciences core curriculum

- [BIO1200 Biology I](#) Biology I (4)
- [BIO2100 Human Anatomy](#) Human Anatomy (4)
- [BIO2101 Human Anatomy Laboratory](#) Human Anatomy Laboratory (1)
- [BIO2600 Human Physiology](#) Human Physiology (4)
- [CDS2010 Careers in Clin and Diag Sci](#) Careers in Clinical and Diagnostic Sciences (1)
- [CDS2070 Hlth Care Syst Around World](#) Health Care Systems Around the World (3)
- [CDS2100 Medical Terminology](#) Medical Terminology (1)
- [CDS2250 Clinical Lab Theory&Techniques](#) Clinical Laboratory Theory and Techniques (2)
 - not required for Pre-Physician Assistant, RAD, or NMT or DMS specialization
- [HS4500 Ethics in Health Care](#) Ethics in Health Care (4)
- [STA2220 Intro to Statistical Concepts](#) Introduction to Statistical Concepts and Reasoning (4)
 - or [STA2222 Stat Methods for Biology](#) Statistical Methods for Biology (4)
 - or [STA2226 Applied Probability and Stat](#) Applied Probability and Statistics (4)

3. Complete the specialization course requirements for medical laboratory sciences

- [CDS4000 Medical Genetics](#) Medical Genetics (4)
- [CDS4020 Molecular Diagnostics](#) Molecular Diagnostics (3)
- [CDS4140 Hematology/Hemostasis I](#) Hematology/Hemostasis I (3)
- [CDS4150 Hematology/Hemostasis Lab I](#) Hematology/Hemostasis Laboratory I (1)
- [CDS4160 Hematology/Hemostasis II](#) Hematology/Hemostasis II (4)
- [CDS4170 Hematology/Hemostasis Lab II](#) Hematology/Hemostasis Laboratory II (1)

- [CDS4230 Medical Immunology](#) Medical Immunology (3)
- [CDS4240 Immunohematology](#) Immunohematology (3)
- [CDS4241 Immunohematology Laboratory](#) Immunohematology Laboratory (1)
- [CDS4250 Medical Biochem](#) Medical Biochemistry (4)
- [CDS4270 Clinical Chemistry](#) Clinical Chemistry (4)
- [CDS4280 Clinical Chemistry Lab](#) Clinical Chemistry Laboratory (1)
- [CDS4300 Clinical Microbiol](#) Clinical Microbiology (4)
- [CDS4310 Clinical Microbiol Lab](#) Clinical Microbiology Laboratory (1)
- [CDS4350 Clin Parasit/Mycology/Virology](#) Clinical Parasitology, Mycology, Virology (3)
- [CDS4360 Clinical Parasi Mycol Viro Lab](#) Clinical Parasitology, Mycology, Virology Lab (1)
- [CDS4400 Clinical Correlations](#) Clinical Correlations (3)
- [CHM1440 General Chemistry I](#) General Chemistry I (4)
- [CHM1450 General Chemistry II](#) General Chemistry II (4)
- [CHM1470 General Chemistry Lab I](#) General Chemistry Laboratory I (1)
- [CHM1480 General Chemistry Lab II](#) General Chemistry Laboratory II (1)
- [CHM2340 Organic Chemistry I](#) Organic Chemistry I (4)
- [PHY1010 General Physics I](#) General Physics I (4)
- [PHY1020 General Physics II](#) General Physics II (4)
- 2 credits of free electives can be used to satisfy the 120 degree credit requirement. Suggested elective course(s): [HS1000 Careers in Health](#)

Note

Some clinical programs may require [MTH1441 Precalculus](#). Check the individual clinical programs for current requirements.

4. Complete all CDS major program course-work with a cumulative GPA of 2.80 or higher in the following courses:

- [CDS5020 Molecular Diagnostics](#) Molecular Diagnostics (3)
- [CDS5240 Immunohematology](#) Immunohematology (3)
- [CDS5350 Parasitology Mycology Virology](#) Clinical Parasitology, Mycology, Virology (3)
- [CDS5400 Clinical Correlations](#) Clinical Correlations (3)

Note

A student with a junior standing may apply to the Combined B.S./M.S. program through the graduate office. Qualified applicants will be given a delayed admission to the MLS program. (Full, formal admission will not take place until the student successfully completes his or her undergraduate degree). Students must maintain an average of 3.0 GPA throughout the curriculum.

A student accepted into the program continues his or her undergraduate degree with the substitution of 4 graduate courses as shown above.

Please note that students must be accepted into the program before taking any graduate level courses. If a student in the program has successfully graduated with a BS degree, he or she and is fully admitted to the graduate MLS program.

See graduate catalog for additional requirements for the Combined B.S./M.S. program.

All university and departmental requirements for each of the bachelor's degree and master's degree must be satisfied to receive both degrees. The full number of credit hours required for the bachelor's and master's degree must be completed; this includes the 12-credit of graduate courses completed as an undergraduate and approved to count towards the undergraduate and graduate degree requirements.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Healthcare Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Interdisciplinary Healthcare Systems	Major

Program Type

Master

College/School

School of Health Sciences (HS)

Department(s)

Interdisciplinary Health Sci

Credit Total

32

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Master of Science in Interdisciplinary Healthcare Systems

433 Meadow Brook Rd ([map](#))

(248) 370-2369 • Fax (248) 364-8657

www.oakland.edu/shs/interdisciplinary-health/

Program Coordinator:

Melissa Reznar, Director

3102 HHB

248-364-8668

reznar@oakland.edu

Program Description

The Master of Science in Interdisciplinary Healthcare Systems degree program will train current and future healthcare professionals to work effectively in interprofessional healthcare teams that focus on patient-centered care, consider needs of vulnerable populations, use information in quality improvement endeavors, and apply principles of evidence-based practice.

This is a two-year, 32-34 credit degree program with three possible tracks: A) Professional track designed for students currently working in or planning for non-clinical employment within healthcare systems, B) Dietetic track for students planning to complete Beaumont Hospital's Dietetic Internship with career goals as a registered dietitian, and C) Research track for students intending on careers in research or intending to obtain a PhD. Students will take one year of courses prior to starting a practicum/internship or developing and completing a research project, which they will complete in their

second year. In their capstone course, students will disseminate their projects and findings using a variety of techniques, including formal presentations to stakeholders.

Admission Terms and Application Deadlines

Applicants are admitted fall semester only. Before an applicant's file can be reviewed for full program admission, all application documents must be received in the Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- The early application deadline is February 15 to be considered for a Graduate Assistantship position. The recommended regular deadline is March 15. However, applications received after this date may be considered if spots are still available until they are filled.

- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Online application
 - Official transcripts
 - Providing evidence of a baccalaureate degree awarded from a regionally accredited U.S. institution
 - From all post-secondary educational institutions and for any graduate-level coursework beyond a bachelor's degree
 - International university transcripts must be evaluated by a professional credential evaluation service. Oakland University will only accept transcript evaluations completed by a NACES (National Association of Credential Evaluation Service) member organization. Many applicants use World Educational Services (WES) or Educational Credential Evaluators (ECE). NACES membership can be confirmed by visiting www.naces.org/members/
 - An undergraduate GPA of at least 3.0 is required.
- **Requirements for Recommendations:**
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- Students applying for entrance in the Dietetics Concentration will simultaneously apply for the graduate program and the Beaumont Internship. They must submit a Didactic Program in Dietetics (DPD) verification

statement and meet the minimum acceptance requirements for Beaumont's ACEND-accredited Dietetic Internship, including a minimum GPA of 3.2.

- Two professional recommendations for Graduate Admission, using the Recommendation for Graduate Admission
- Curriculum Vitae or Resume
- Personal statement of **no more than TWO pages double-spaced (approximately 500 words)**.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Graduate Study and Lifelong Learning, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Master of Science in Interdisciplinary Healthcare Systems program is awarded upon satisfactory completion of 32-34 credits (depending on students choice of B or C concentrations) in an approved program of study.

Course Requirements

a. Core Requirements for all Concentrations (24 credits)

- **HS5100 Evidence Decision & Rsch Hlthc** Evidence-based Decision Making and Research in Healthcare (4 credits)
- **HS5200 ID Healthcare Delivery Seminar** Interdisciplinary Healthcare Delivery Seminar (1 credit)
- **HS5500 Ethic & Prof Prac Hlth Del** Ethical and Professional Practice in Healthcare Delivery (4 credits)
- **HS6300 App. Inter. Decision Making** Applied Interprofessional Decision Making in Healthcare Teams (4 credits)
- **PH5650 Social Determinants of Health** Social Determinants of Health (4 credits)
- **ISE5574 Healthcare Informatics** Healthcare Informatics (4 credits)
- **PA5600 Org/Admin Hlth/Med Prog** Organization and Administration of Health and Medical Care Programs (3 credits)

b. Professional and Dietetics Concentrations Requirements (8 credits)

- **HS6100 Hlthcare Syst & Delv Practicum** Healthcare Systems and Delivery Practicum (4 credits)

- **HS6500 Hlthcare Syst & Delv Capstone Healthcare Systems and Delivery Capstone (4 credits)**

c. Health Research Concentration Requirements (10 credits)

One research Methods course (4 credits)

- **PH5550 Qualitative Research Methods Qualitative Research Methods (4 credits)**
- **PH6150 Quant/Qual Research Methods Quantitative and Qualitative Research Methods (4 credits)**
- **PH5410 Biostatistical Method/Pub Heal Biostatistical Methods in Public Health (3 credits)**

AND

- **PH5411 Biostatistical Methods/PH Lab Biostatistical Methods in Public Health Laboratory (1 credit)**
- **PH5450 Applied Biostats in PH Applied Biostatistics in Public Health (3 credits)**

AND

- **PH5451 Applied Biostats in PH Lab Applied Biostatistics in Public Health Laboratory (1 credit)**

Complete a master's thesis (6 credits)

- **HS6995 Health Sciences Thesis Researc Health Sciences Thesis Research (1 to 4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree

- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In order to remain in good standing at the graduate level, students must maintain a minimum graduate GPA of 3.0 or better. Credit toward the degree will not be given for courses with grades under 2.5.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to the Oakland University Graduate School

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Academic Advising

Upon acceptance into the program, students are assigned a faculty mentor who will assist the student in developing a plan of study, to be approved by the program coordinator.

Time Limits

All graduate certificate students are expected to complete their degree within the time limit established by the University **Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Exercise Science, Master of Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MS	Exercise Science, Major Master of Science	

Program Type
Master

College/School
School of Health Sciences (HS)

Department(s)
Human Movement Science

Credit Total	Delivery Method	Required Summer Semesters
32	In Person	0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd ([map](#))
(248) 370-4041 • Fax (248) 364-8660
www.oakland.edu/shs/

Director:

Daniel Goble, Associate Professor
dgoble@oakland.edu

Program Description

This interdisciplinary program emphasizes the role of exercise in health improvement and in the primary and secondary prevention of chronic degenerative disease. The curriculum addresses the inter-relationships among lifestyle, health and physical activity, and optimization of human performance. Clinical experience is gained through cooperating internship sites. Graduates of the program are prepared for professional positions such as cardiac stress testing specialists; exercise specialists in medical settings; sport scientists; and directors of adult fitness programs, human performance enhancement programs, cardiac rehabilitation programs, and health maintenance/health improvement programs in corporate, industrial and educational settings.

Admission Terms and Application Deadline

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- International applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate Application Requirements
2. **Additional department application requirements**
 - Applicants should have a background in basic and applied health sciences and a minimum overall undergraduate grade point average of 3.0.
 - **Recommendation for Graduate Admission form:**
Two recommendations for Graduate Admission forms must be from academics familiar with the student's abilities (preferred) or from employment supervisors.
 - Goal statement

Applicants with an undergraduate GPA less than 3.0 with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 12 credits of graduate-level work, with a GPA of 3.0 or above, to be advanced to full admission.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Program Prerequisites

Completion of the following prerequisite courses is required. Students should have completed the required prerequisite coursework at the appropriate undergraduate or graduate level, prior to beginning coursework for the master's degree.

- Human anatomy
- Human physiology
- Exercise physiology
- Biomechanics (human motion analysis)

Oakland University Equivalents for Prerequisite Coursework

- BIO 2100 - Human Anatomy
- BIO 2600 - Human Physiology
- EXS 3010 - Exercise Physiology
- EXS 3020 - Biomechanics

Degree Requirements

The Master of Science in Exercise Science degree is awarded upon satisfactory completion of 32 credits in an approved program of study.

Course Requirements (32 credits)

The average candidate entering the fall or winter semester will spend two full-time academic years to successfully complete this graduate program, which requires:

a. Core Requirements (20 credits)

- EXS5000 Introduction To Research Introduction to Research (4 credits)
- EXS5010 Advanced Exercise Physiology Advanced Exercise Physiology (4 credits)
- EXS5020 Advanced Biomechanics Advanced Biomechanics (3 credits)
- EXS5030 Diagnostic Test/Exs Prescript Diagnostic Testing and Exercise Prescription (3 credits)
- EXS5040 Nutrition/Weight Mgt/Exercise Nutrition, Weight Management and Exercise (2 credits)
- EXS6950 Exercise Science Internship I Exercise Science Internship I (2 OR 4 credits)
- (Taken twice for 2 credits OR once for 4 credits) (4 credits total)

b. Electives (6 credits)

Choose 6 credits from the following (must be approved by their advisers):

- EXS5100 Intro to Personal Training Introduction to Personal Training (2 credits)
- EXS5200 Physical Activity & Aging Physical Activity and Aging (2 credits)
- EXS5300 Human Performance Enhancement Human Performance Enhancement (2 credits)
- EXS5310 Environment/Human Performance Environment and Human Performance (2 credits)
- EXS5440 Prev Nutrit Through Life Span Preventative Nutrition Through the Life Span (2 credits)

- EXS5500 Healthy Lifestyle Choices Healthy Lifestyle Choices (2 credits)
- EXS5510 Stress Management Stress Management (2 credits)
- EXS5520 Health-Promoting Choices Health-Promoting Lifestyle Choices and Interventions (4 credits)
- EXS5630 Basic Athletic Training Basic Athletic Training (2 credits)
- EXS5640 Exercise Electrocardiography Exercise Electrocardiography (2 credits)
- EXS5650 Yoga Therapy Yoga Therapy (3 Credits)
- EXS5600 Health And Disease Health and Disease (2 credits)
- EXS5620 Clinical Biomechanics Clinical Biomechanics (2 credits)
- EXS5700 Corporate/Worksite Wellness Corporate and Worksite Wellness Programs (2 credits)
- EXS5800 Exercise Endocrinology Exercise Endocrinology (2 credits)
- EXS5810 Physical Activity Epidemiology Physical Activity Epidemiology (2 credits)
- EXS6600 Admin Cardiac Rehab/Exs Prgm Administration of a Cardiac Rehabilitation or Community Exercise Program (2 credits)
- EXS6700 Laboratory Instrumentation Laboratory Instrumentation (2 credits)
- EXS5830 Muscle Physiology Muscle Physiology (2 credits)
- EXS6940 Seminar In Exercise Science Seminar in Exercise Science (2 credits)
- EXS6920 Directed Study and Research Directed Study and Research (1 OR 2 credits)
- EXS6955 Exercise Science Internship II Exercise Science Internship II (2 OR 4 credits)

Additional Electives

Electives outside of EXS may be selected if the electives are 5000 or above and are approved by the Program Director.

c. Research Requirement (minimum of 6 credits)

Completion of a research requirement involving a master's thesis or comprehensive examinations must be achieved. The research requirement involves the completion of a minimum of 6 credits in EXS 6995.

- EXS6995 Research in Exercise Science Research in Exercise Science (1 TO 6 credits) (minimum of 6 credits)

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. Department requirements: An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Thesis Research or Comprehensive Examination Option

Candidates for the Master of Science degree must choose either to carry out an independent research project culminating with the completion of a master's thesis or to conduct in-depth study in an approved area, followed by a comprehensive examination covering this area.

Students who choose the thesis option select an adviser who serves as the thesis committee chair and two committee members agreed upon by the student and chair. A thesis proposal is presented orally and in writing to the adviser for approval. Research topics usually consist of experimental studies in the areas of biomechanics, cardiac rehabilitation, exercise physiology, measurement and evaluation, performance assessment, physical rehabilitation, and studies of lifestyle behavior. The thesis is presented and defended by the candidate at a meeting open to all interested faculty members. All thesis requirements must adhere to university format standards and deadlines (see [Thesis and Dissertation](#)).

The comprehensive examination option is designed to provide those students who do not wish to conduct thesis research an opportunity for in-depth study. The student selects an adviser who serves as the comprehensive examination committee chair and two committee members agreed upon by the student and chair. Under this option, students select a topic, with their adviser's approval. An extensive reading list for the topic is compiled from recommendations submitted by their adviser who has expertise in the area. A thorough paper detailing the review of literature is written for this topic or a comprehensive examination consisting of selected questions for the topic area is given in order to determine if the candidate has the in-depth knowledge expected of a master's degree candidate. The student presents a seminar on this topic, open to all interested faculty members. Following this, the student undergoes an oral comprehensive examination on the topic by their committee.

Exercise Science Internship

The internship component of this program provides an opportunity for students to gain first-hand experience in the practice of exercise science. All students are required to demonstrate specific clinical and non-clinical competencies spelled out in the Master of Science in Exercise Science Student Handbook.

Students must meet the requirements established by internship site including proof of the following:

- 1) Proof of current health insurance;
- 2) Proof of current CPR certification (minimum BLS-CPR);
- 3) Proof of recent (last 6 months) physical examination by medical practitioner. A written statement indicating the student has been medically examined and is cleared to start the internship is required.
- 4) Evidence of Hepatitis B vaccination OR a signed, dated statement of declination of vaccination.
- 5) Students may also be required to provide proof of immunity to rubella (German measles), rubeola (measles), and varicella zoster (chicken pox), and provide proof that they are free of active pulmonary tuberculosis which shall require a negative PPD (Tb) test given within one year of the start date of their clinical experience.
- 6) Students may also be required to successfully pass a drug screen, a criminal background check, and a check of the sexual offenders' database.
- 7) Students may also be required to provide proof of a flu immunization.

Requirements are subject to change based on current practice in the field. Students are responsible for any costs associated with the requirements described above. Internships sites are not required to provide free treatment for students and will bill students for use of their emergency or employee health services.

Code of Ethics

Along with scholarly preparation in the appropriate academic disciplines, high levels of ethical conduct are considered essential for those who are involved in health care. Students are expected to comply with the principles of the **Code of Ethics and Professional Conduct of the American College of Sports Medicine**. Violations will be brought before the faculty and could result in dismissal from the program.

Time Limits

All graduate certificate students are expected to complete their degree within the time **limit established by the University Program Policy**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Exercise Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Exercise Science Major	

Program Type

Combined Program

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total

140

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

This combined bachelor/master degree program provides high-achieving students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently. Participants can graduate with an M.S. in Exercise Science in approximately one calendar year after completing a B.S. in Exercise Science. Students in the program complete 12 graduate level credits at the undergraduate tuition rates. Students who have a minimum overall undergraduate GPA of 3.2 and have earned a 3.0 or above GPA in each of the 12-credits of graduate courses will be reclassified as a graduate student through the Graduate School.

Requirements for the Combined B.S./M.S. in Exercise Science (EXS) Degree Program

If a student has a minimum overall GPA of 3.2, has at least junior standing, and has completed half of the department credits required for the major the student may apply to the B.S./M.S. in EXS program through the graduate school. Qualified applicants will be given a delayed admission to the EXS program. (Full, formal admission will not take place until the student successfully completes his or her undergraduate degree).

A student accepted into the combined B.S./M.S. in EXS program continues his or her undergraduate degree with the substitution of 4 graduate courses.

If a combined B.S./M.S. program student has successfully graduated with a B.S. degree and an overall GPA of 3.0, he or she is fully admitted to the M.S. in EXS program.

*See graduate catalog for additional requirements for the combined B.S./M.S. program.

Students seeking the Combined B.S./M.S. in EXS program must complete a minimum of 123 credits to earn the B.S. and an additional 20 graduate credits to earn the M.S. See requirements below:

1. General Education Requirements

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an Undergraduate Academic Adviser concerning the selection of all of their General Education courses.

Each candidate for an Oakland University baccalaureate will need to satisfactorily complete approved courses in each of the following areas: Foundation, Exploration, Integration, Writing, U.S. Diversity and Capstone. For details, refer to the **General Education** section of the catalog.

2. Complete the foundational courses

- **BIO1200 Biology I** Biology I (4)
- **BIO2100 Human Anatomy** Human Anatomy (4)
- **BIO2101 Human Anatomy Laboratory** Human Anatomy Laboratory (1)
or **BIO3621 Physiology Lab** Physiology Laboratory (1)
- **BIO2600 Human Physiology** Human Physiology (4)
- **CHM1440 General Chemistry I** General Chemistry I (4)*
and **CHM1470 General Chemistry Lab I** General Chemistry Laboratory I (1)
- **EXS1000 Exs (Strength Trn) and Hlth Exercise** (Strength Training) and Health Enhancement (2)
or **EXS1100 Cardiovascular Fitness Tr** Cardiovascular Fitness Training (2)
- **EXS2200 Intro to Exercise Science** Introduction to Exercise Science (2)
- **EXS2410 Nutrition Exer Sport Health** Nutrition for Exercise, Sport and Health (3)
or **NTR2500 Human Nutrition and Health** Human Nutrition and Health (3) and **NTR3250 Sports Nutrition** Sports Nutrition (3)
- **EXS2700 Safety and First Aid** Safety and First Aid in Exercise Settings (2)
- **EXS3010 Exercise Physiology** Exercise Physiology (3)
- **EXS3020 Biomechanics** Biomechanics (3)
- **EXS3030 Motor Control** Motor Control (3)
- **EXS4030 Assessment Interventions Lab** Assessment and Interventions Laboratory (3)

- **EXS4715 Integrated Laboratory** Integrated Laboratory in Exercise Science (3)*
- **EXS4960 Practicum in Exercise Science** Practicum in Exercise Science (3)
or **EXS4995 Directed Research** Directed Research (3)
- **HS2000 Intro Hlth & Hlth Behaviors** Introduction to Health and Health Behaviors (3)* and **HS2050 Int Hlth & Hlth Behav Lrn Lab** Introduction to Health and Health Behaviors Lab (1)*
- **MTH1441 Precalculus** Precalculus (4)
or **MTH1554 Calculus I** Calculus I (4)
or **MTH1331 College Algebra** College Algebra (4) and **MTH1332 Trigonometry** Trigonometry (3)
- **PHY1010 General Physics I** General Physics I (4)*
or **PHY1510 Introductory Physics I** Introductory Physics I (4)
- **PHY1100 General Physics Lab I** General Physics Lab I (1)
- **PSY1000 Introduction to Psychology** Introduction to Psychology (4)
- **PSY2500 Research Design in Psychology** Research Design in Psychology (4)
- **STA2220 Intro to Statistical Concepts** Introduction to Statistical Concepts and Reasoning (4)*

3. Complete electives in exercise science (to total 4 credits; EXS4960 Practicum in Exercise Science or EXS4995 Directed Research are required, but may be repeated once for credit with permission)

- **EXS1000 Exs (Strength Trn) and Hlth Exercise** (Strength Training) and Health Enhancement (2)
- **EXS1100 Cardiovascular Fitness Tr** Cardiovascular Fitness Training (2)
- **EXS1500 Judo and Health Enhancement** Exercise (Judo) and Health Enhancement (2)
- **EXS2000 Group Exercise Instruction I** Group Exercise Instruction I (2)
- **EXS2100 Group Exercise Instruction II** Group Exercise Instruction II (2)
- **EXS3015 Exercise Physiology Laboratory** Exercise Physiology Laboratory (1)
- **EXS3510 Clinical Assessments** Clinical Assessments (3)
- **EXS3520 Material Characteristics** Material Characteristics (2)
- **EXS3535 Patient & Practice Management** Patient & Practice Management (1)
- **EXS3540 Fit, Function and Modification** Fit, Function and Modifications (3)

- **EXS3550 Neuropathic Disorders Neuropathic Disorders (1)**
- **EXS4100 Intro to Personal Training Introduction to Personal Training (2)**
- **EXS4110 Advanced Personal Training Advanced Personal Training (2)**
- **EXS4200 Physical Activity and Aging Physical Activity and Aging (2)**
- **EXS4210 Children and Exercise Children and Exercise (2)**
- **EXS4300 Human Performance Enhancement Human Performance Enhancement (2)**
- **EXS4400 Obesity and Physical Activity Obesity and Physical Activity (2)**
- **EXS4500 Healthy Lifestyle Choices Healthy Lifestyle Choices (2)**
- **EXS4510 Spinal Orthotics Spinal Orthotics (2)**
- **EXS4520 Upper Extremity Orthotics Upper Extremity Orthotics (2)**
- **EXS4530 Lower Extremity Orthotics Lower Extremity Orthotics (3)**
- **EXS4540 Upper Extremity Prosthetics Upper Extremity Prosthetics (2)**
- **EXS4550 Lower Extremity Prosthetics Lower Extremity Prosthetics (3)**
- **EXS4600 Health and Disease Health and Disease (2)**
- **EXS4620 Clinical Biomechanics Clinical Biomechanics (2)**
- **EXS4630 Basic Athletic Training Basic Athletic Training (2)**
- **EXS4640 Exercise ECG Exercise Electrocardiography (2)**
- **EXS4650 Yoga Therapy Yoga Therapy (3)**
- **EXS4700 Corporate/Worksite Wellness Corporate and Worksite Wellness Programs (2)**
- **EXS4800 Exercise Endocrinology Exercise Endocrinology (2)**
- **EXS4810 Physical Activity Epidemiology Physical Activity Epidemiology (2)**
- **EXS4830 Muscle Physiology Muscle Physiology (2)**
- **EXS4900 Special Topics Special Topics (1 TO 4)**
- **EXS4996 Independent Study Independent Study (1 TO 4)**
- **EXS4997 Apprentice College Teaching Apprentice College Teaching (1 TO 3)**

4. Graduate courses

- **EXS5010 Advanced Exercise Physiology Advanced Exercise Physiology (4)**

- **EXS5020 Advanced Biomechanics Advanced Biomechanics (3)**
- **EXS5030 Diagnostic Test/Exs Prescript Diagnostic Testing and Exercise Prescription (3)**
- **EXS5040 Nutrition/Weight Mgt/Exercise Nutrition, Weight Management and Exercise (2)**

Note

All university and departmental requirements for each of the B.S. and M.S. degrees must be satisfied to receive both degrees. The full number of credit hours required for the B.S and M.S. degrees must be completed; this includes the 12-credits of graduate courses completed as an undergraduate and approved to count towards the undergraduate and graduate degree requirements.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Adult/Gerontological Nurse Practitioner Acute Care

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSN	Adult/ Gerontological Nurse Practitioner Acute Care	Major

Program Type

Master

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

48

Delivery Method Required

In Person

**Summer
Semesters**
2

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-4253 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Tracey Chan
2042 Human Health Building
(248) 364-8748
techan@oakland.edu

Program Description

The Adult Gerontological-Acute Care (AG-AC) track of the Master of Science in Nursing program prepares students to be leaders in health care. The curriculum focuses on holistic patient care in the management of episodic and complex health issues in critically ill adolescents, young adults, adults, and older/aging adults. Attention is given to clinical experiences in acute care/inpatient settings. Oakland University's Nurse Practitioner Program is proud to educate students with experienced nurse practitioner faculty and students have opportunities for involvement with many organizations on campus, including the Michigan Council of Nurse Practitioners - Oakland Chapter. Oakland University School of Nursing is accredited through CCNE. Upon completion of all program requirements, graduates are prepared for certification through ANCC or AACN.

Admission to the AG-AC track at Oakland University occurs once a year, during the Fall semester. Admission to the program is highly competitive and priority is given to students who submit all materials by the deadline. Our desired applicants are self-directed learners, demonstrate superior communication and interpersonal skills, and have strong critical thinking skills. Qualified applicants will be selected for an interview with current Oakland University School of Nursing faculty.

Master's Program Outcomes

Building on the foundation of the Bachelor of Science in Nursing, the Master of Science in Nursing (MSN) program will prepare graduates as transformational leaders with advanced nursing knowledge and practice expertise for optimizing health outcomes. (Essential IX)

1. Applies and integrates established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Design, deliver, coordinate, manage and evaluate comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Partners with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes.
4. Appraise, synthesize, integrate, and disseminate knowledge to improve person centered health and transform health care.
5. Facilitate and execute the implementation of principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems.
6. Facilitate the collaboration of interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Develop organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations.
8. Appraise informatics processes and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems.
9. Establish a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values.

10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the fall (full-time). The application deadlines are:

Fall Admission Application Deadlines

- Early Decision Application Deadline: March 1
- Standard Decision Application Deadline: May 1
- **International students:** May 1 for admission to the following Fall semester

Additional department application requirements

- Applicants for admission to the Master of Science in Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of B (3.0) or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Applicants must submit all transcripts from previously attended institutions.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- Unrestricted R.N license to practice in Michigan.
- Two (2) letters of recommendations are required and must be completed by healthcare professionals in nursing, leadership, administration/management, or education who can attest to the applicant's work and/or educational experience, as well as the applicant's potential for graduate study.
- Professional statement of 750 words or less. The professional statement should focus on the consensus model within the APRN scope of practice, the applicant's career goals after completion of the program, how recent clinical experiences have prepared them for an advanced practice role, and plans for professional development.

International Students

International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Degree Requirements

The Master of Science in Nursing: Adult/Gerontological Acute Care Nurse Practitioner is awarded upon satisfactory completion of 48 credits, including a minimum of 756 clinical practice hours.

Course Requirements

a. Foundation course requirements (10 credits)

Foundation courses address critical content needed by all graduate nursing students. These courses include content on nursing theory, diversity, research, ethics, health policy and roles of advanced practice nursing.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice** (4 credits)
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination** (1 credit)
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice** (3 credits)
- **NRS6398 Graduate Project Graduate Project** (2 credits)

b. Clinical core courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan** (3 credits)
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan** (4 credits)

c. Specialty courses (27 credits)

Specialty courses consist of didactic and clinical courses that prepare students for advanced nursing practice. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and graduate foundation and clinical core courses and are based on population foci.

- **NRS5251 Interprof Role Dev/Ethic-ANP Inter-professional Role Development Leadership and Ethics in Advanced Nursing Practice (3 credits)**
- **NRS6627 Adv Concepts in Gerontology Advanced Concepts in Gerontology (3 credits)**
- **NRS6734 NP Diag Test Proc Acute Care S Nurse Practitioner Diagnostic Testing and Procedures in the Acute Care Setting (2 credits)**
- **NRS6737 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical concepts in Acute Care I (6 credits)**
- **NRS6747 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care II (6 credits)**
- **NRS6767 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care III (7 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the School of Nursing Graduate Student Handbook.

Students are expected to earn a grade of B (3.0) or above in each course in the MSN program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the SON website for health requirements. Students are also required to meet any requirements of the healthcare facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned NP Program Director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the NP Program Director.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for all requirements and policies stated in the School of Nursing Graduate Student Handbook and in each course syllabus. Every student admitted to the MSN program is assigned an academic adviser and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Adult/Gerontological Nurse Practitioner Primary Care

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSN	Adult/ Gerontological Nurse Practitioner Primary Care	Major

Program Type

Master

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

48

Delivery Method Required

In Person

**Summer
Semesters**

0

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-4253 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Tracey Chan
2004 Human Health Building
(248) 364-8748
techan@oakland.edu

Program Description

The Adult Gerontological-Primary Care (AG-PC) track of the Master of Science in Nursing program prepares students to be leaders in health care. The curriculum focuses on holistic patient care in the management of routine, episodic, and complex health issues, with attention given to clinical experiences in primary care of adolescents, young adults, adults, and older/aging adults. Oakland University's Nurse Practitioner Program is proud to educate students with experienced nurse practitioner faculty and students have opportunities for involvement with many organizations on campus, including the Michigan Council of Nurse Practitioners - Oakland Chapter. Oakland University School of Nursing is accredited through Commission on Collegiate Nursing Education (CCNE). Upon

completion of all program requirements, graduates are prepared for certification through American Nurses Credentialing Center (ANCC) or American Association of Nurse Practitioners® (AANP).

Admission to the program is competitive and priority is given to students who submit all materials by the deadline. Our desired applicants are self-directed learners, demonstrate superior communication and interpersonal skills, and have strong critical thinking skills. Qualified applicants will be selected for an interview with current Oakland University School of Nursing faculty.

Master's Program Outcomes

1. Applies and integrates established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Design, deliver, coordinate, manage and evaluate comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Partners with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes.
4. Appraise, synthesize, integrate, and disseminate knowledge to improve person centered health and transform health care.
5. Facilitate and execute the implementation of principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems.
6. Facilitate the collaboration of interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Develop organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations.
8. Appraise informatics processes and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems.
9. Establish a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values.
10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted once a year in the fall (full-time and part-time). The application deadlines are:

Fall Admission Application Deadlines

- Early Decision Application Deadline: March 1
- Standard Decision Application Deadline: May 1
- **International students:** May 1 for admission to the following Fall semester

Application Requirements

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Additional department application requirements

• Applicants for admission to the Master of Science in Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of B (3.0) or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.

• Unrestricted R.N license to practice in Michigan.

• Two (2) letters of recommendations are required and must be completed by healthcare professionals in nursing, leadership, administration/management, or education who can attest to the applicant's work and/or educational experience, as well as the applicant's potential for graduate study.

- Professional statement of 750 words or less. The professional statement should focus on the consensus model within the APRN scope of practice, the applicant's career goals after completion of the program, how recent clinical experiences have prepared the applicant for an advanced practice role, and plans for professional development.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for

success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Degree Requirements

The Master of Science in Nursing: Adult Gerontological Nurse Practitioner is awarded upon satisfactory completion of 47 credits including a minimum of 756 clinical practice hours.

Course Requirements

a. Foundation Course Requirements (10 credits)

Foundation courses address critical content needed by all graduate nursing students.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice (4 credits)**
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination (1 credit)**
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice (3 credits)**
- **NRS6411 Adv Patho Across Lifespan Graduate Project (2 credits)**

b. Clinical Core Courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills.

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan (3 credits)**
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan (4 credits)**
- **NRS6421 Adv Hlth Assess Across Lifespa Advanced Health Assessment Across the Lifespan (4 credits)**

c. Specialty Courses (26 credits)

The specialty courses are comprised of didactic and clinical courses that prepare students for advanced practice nursing. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and graduate foundation and clinical core courses and are based on population foci.

- **NRS5251 Interprof Role Dev/Ethic-ANP Inter-professional Role Development Leadership and Ethics in Advanced Nursing Practice (3 credits)**

- **NRS6627 Adv Concepts in Gerontology Advanced Concepts in Gerontology (3 credits)**
- **NRS6633 Health Promo Across Lifespan Health Promotion Across the Lifespan (2 credits)**
- **NRS6637 Adv Nrs Care Episodic Hlth Con Advanced Nursing Care Acute Health Conditions (6 credits)**
- **NRS6647 Adv Nrs Care Chronic Hlth Cond Advanced Nursing Care of Chronic Health Conditions (6 credits)**
- **NRS6667 Adv Nrs Care Aging Adult Advanced Nursing Care of Aging Adults (6 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards, which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the [School of Nursing Graduate Student Handbook](#).

Students are expected to earn a grade of B (3.0) or above in each course in the MSN program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of

satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the SON website for health requirements. Students are also required to meet any requirements of the healthcare facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned NP Program Director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the NP Program Director.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for all requirements and policies stated in the School of Nursing Graduate Student Handbook and in each course syllabus. Every student admitted to the MSN program is assigned an academic adviser and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Family Nurse Practitioner

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSN	Family Nurse Practitioner	Major

Program Type

Master

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

47

Delivery Method Required

In Person

Summer Semesters
2

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-8733 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Tracey Chan
2004 Human Health Building
(248) 364-8748
cktieppo@oakland.edu

Program Description

The Family Nurse Practitioner (FNP) track of the Master of Science in Nursing program prepares the students to be leaders in health care. The curriculum focuses on holistic patient care in the management of routine, episodic and complex health issues, with attention given to clinical experiences in primary care across the lifespan. Oakland University's Nurse Practitioner Program is proud to educate students with experienced nurse practitioner faculty and students have opportunities for involvement with many organizations on campus, including the Michigan Council of Nurse Practitioners - Oakland Chapter. Oakland University School of Nursing is accredited through CCNE. Upon completion of all program requirements, graduates are prepared for certification through ANCC or AANP.

Admission to the FNP track at Oakland University occurs twice a year, during the Fall and Winter semesters. Admission to the program is highly competitive and priority is given to students who submit all materials by the deadline. Our desired applicants are self-directed learners, demonstrate superior communication and interpersonal

skills, and have strong critical thinking skills. Qualified applicants will be selected for an interview with current Oakland University School of Nursing faculty.

Master's Program Outcomes

1. Applies and integrates established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Design, deliver, coordinate, manage and evaluate comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Partners with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes.
4. Appraise, synthesize, integrate, and disseminate knowledge to improve person centered health and transform health care.
5. Facilitate and execute the implementation of principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems.
6. Facilitate the collaboration of interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Develop organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations.
8. Appraise informatics processes and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems.
9. Establish a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values.
10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the fall (full-time and part-time) and winter semester (full-time and part-time). The application deadlines are:

Fall Admission Application Deadlines

- Early Decision Application Deadline: March 1
- Standard Decision Application Deadline: May 1

Winter Admission Application Deadlines

- Early Decision Application Deadline: September 1
- Standard Decision Application Deadline: November 1
- **International students:** May 1 for admission to the following Fall semester and September 1 for following Winter semester (see additional requirements below)

Application Requirements

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines.

Additional department application requirements

- **FNP Nurse Practitioner Requirements:**
Applicants for admission to the Master of Science in Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of B (3.0) or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Applicants must submit all transcripts from previously attended institutions.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- Unrestricted R.N license to practice in Michigan.
- Two (2) letters of recommendations are required and must be completed by healthcare professionals in nursing, leadership, administration/management, or education who can attest to the applicant's work and/or educational experience, as well as the applicant's potential for graduate study.
- Professional statement of 750 words or fewer. The professional statement should focus on the consensus model within the APRN scope of practice, the applicant's career goals after completion of the program, how recent clinical experiences have prepared the applicant for an advanced practice role, and plans for professional development.

International Students

International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Degree Requirements

The Master of Science in Nursing: Family Nurse Practitioner is awarded upon satisfactory completion of 47 credits including a minimum of 756 clinical practice hours.

Course Requirements

a. Foundation Course Requirements (10 credits)

Foundation courses address critical content needed by all graduate nursing students. These courses include content on nursing theory, diversity, research, ethics, health policy and roles of advanced practice nursing.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice** (4 credits)
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination** (1 credit)
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice** (3 credits)
- **NRS6398 Graduate Project** Graduate Project (2 credits)

b. Clinical Core Courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills.

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan** (3 credits)
- **NRS6421 Adv Hlth Assess Across Lifespan Advanced Health Assessment Across the Lifespan** (4 credits)
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan** (4 credits)

c. Specialty Courses (26 credits)

Specialty courses are comprised of didactic and clinical courses that prepare students for advanced nursing practice. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and graduate foundation and clinical core courses and are based on population foci.

- **NRS5251 Interprof Role Dev/Ethic-ANP Inter-professional Role Development Leadership and Ethics in Advanced Nursing Practice (3 credits)**
- **NRS6633 Health Promo Across Lifespan Health Promotion Across the Lifespan (2 credits)**
- **NRS6637 Adv Nrs Care Episodic Hlth Con Advanced Nursing Care Acute Health Conditions (6 credits)**
- **NRS6647 Adv Nrs Care Chronic Hlth Cond Advanced Nursing Care of Chronic Health Conditions (5 credits)**
- **NRS6657 Adv Nrs Care Ped Patients Advanced Nursing Care of Pediatric Patients (5 credits)**
- **NRS6667 Adv Nrs Care Aging Adult Advanced Nursing Care of the Older Adult (5 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the **School of Nursing Graduate Student Handbook**.

Students are expected to earn a grade of B (3.0) or above in each course in the MSN program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the SON website for health requirements. Students are also required to meet any requirements of the healthcare facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned NP program director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the NP Program Director.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for all requirements and policies stated in the School of Nursing Graduate Student Handbook and in each course syllabus. Every student admitted to the MSN program is assigned an academic adviser and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Forensic Nursing

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSN	Forensic Nursing Major	

Program Type

Master

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

39

Delivery Method Required

Partially Online, Fully Online

Summer Semesters
2

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))

(248) 370-8733 • Fax (248) 364-8740

www.oakland.edu/nursing

Program Director:

Brenda Dzierzawski

2016 Human Health Building

248-364-8769

bdzierzawski@oakland.edu

Program Description

The Master of Science in Nursing: Forensic Nursing degree program prepares professional nurses for advanced nursing practice, leadership in the nursing profession, and future doctoral study.

The Forensic Nursing program prepares graduates for professional practice in the role of the forensic nurse through the application of knowledge and principles foundational to nursing science and forensic science. Curriculum emphasizes interprofessional education related to the diverse roles and responsibilities of the forensic nurse as an independent practitioner and collaborator within the multidisciplinary forensic team while providing specialized care and services to individuals, families, communities, populations, and systems that have experienced violence, trauma, or maltreatment.

The Forensic Nursing program prepares graduates to practice globally as a forensic nurse examiner with the ability to sub-specialize in a specific area of forensic nursing if desired. Graduates may practice in a variety of forensic nursing areas such as

sexual violence, intimate partner violence, child/elder maltreatment, risk management, legal nursing, death investigation, and emergency preparedness and disaster management.

Master's Program Outcomes

1. **Apply and integrate** established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning. (Domain 1)
2. **Design, deliver, coordinate, manage and evaluate** comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level. (Domain 2)
3. **Partner** with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes. (Domain 3)
4. **Appraise, synthesize, integrate, and disseminate** knowledge to improve person centered health and transform health care. (Domain 4)
5. **Facilitate and execute the implementation of** principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems. (Domain 5)
6. **Facilitate the collaboration of** interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes. (Domain 6)
7. **Develop** organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations. (Domain 7)
8. **Appraise** informatics processes, and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems. (Domain 8)
9. **Establish** a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values. (Domain 9)
10. **Lead, model, and facilitate** activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties. (Domain 10)

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the fall semester only.

The application deadlines are:

- Fall Semester - February 15 (early): April 15 (regular): July 15 (late). All applications completed by July 15 will be considered for admission to the following Fall Semester.
- **International students:** April 1 for admission to the following Fall Semester (see additional requirements below)

Application Requirements

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Additional Department Application Requirements

- Applicants for admission to the Master of Science in Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of 3.0 or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- A minimum of one year of clinical experience as an R.N. (at program start) is required during which time the applicant must have functioned as an independent decision-maker and demonstrated advanced psychomotor skills.
- Two (2) Recommendations must be completed by healthcare professionals in forensic nursing, leadership, administration/management, or education and are able to attest to the applicant's nursing skills and/or abilities. One reference must be from a colleague who is familiar with the applicant's work.
- Professional statement of 500 to 1,000 words. The professional statement should focus on the applicant's reason for seeking formal forensic nursing education, how recent clinical experience has prepared them for forensic nursing practice, career goals after program completion, as well as plans for professional development in the specialty of forensic nursing. The professional statement will be evaluated on content and appropriate use of grammar, style, spelling, and rhetoric.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants may be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Degree Requirements

The Master of Science in Nursing: Forensic Nursing is awarded upon satisfactory completion of 39 credits in an approved program of study and includes a minimum of 500 clinical hours. The program of study allows students to complete the requirements in 28 months.

Course Requirements

a. Foundation Courses (10 credits)

Foundation courses address critical content needed by all graduate nursing students. These courses include content on nursing theory, diversity, research, ethics, health policy, and roles of advanced nursing practice.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice** (4 credits)
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination** (1 credit)
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice** (3 credits)
- **NRS6398 Graduate Project Graduate Project** (2 credits)

b. Clinical Core Courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills.

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan** (3 credits)
- **NRS6421 Adv Hlth Assess Across Lifespan Advanced Health Assessment Across the Lifespan** (4 credits)
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan** (4 credits)

c. Specialty Courses (18 credits)

Specialty courses are comprised of didactic and clinical courses that prepare students for forensic nursing practice. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and during foundation and clinical core courses.

- **NRS6741 Foundations/Forensic Nursing Foundations of Forensic Nursing Science (3 credits)**
- **NRS6771 Forensic Nurse Death Invest Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death (2 credits)**
- **NRS6725 Death Investigation Clinical Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death Clinical (1 credit)**
- **NRS6761 Emergency Prep/Disaster Mgmt Emergency Preparedness and Disaster Management (2 credits)**
- **NRS6765 Emer Prep/Disaster Mgmt Clin Emergency Preparedness and Disaster Management Clinical (1 credit)**
- **NRS6755 Interper Violence/Maltreat Interpersonal Violence and Maltreatment (4 credits)**
- **NRS6745 Interper Violence/Maltreat Cli Interpersonal Violence and Maltreatment Clinical (1 credit)**
- **NRS6941 Adv Forensic Nursing Seminar Advanced Forensic Nursing Seminar (1 credit)**
- **NRS6785 Adv Forensic Nursing Clinical Advanced Forensic Nursing Clinical (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Student Financial Services** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of (B) 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship

- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the **School of Nursing Graduate Student Handbook**.

Students are expected to earn a grade of B (3.0) or above in each course in the MSN program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the SON website for health requirements. Students are also required to meet any requirements of the healthcare facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the FN program director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be signed by the program director and student.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for requirements and policies stated in the **School of Nursing Graduate Student Handbook** and in each course syllabus. Every student admitted to the MSN program is assigned an **academic adviser** and has a program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Social Work: Advanced Standing Program

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSW	Social Work: Advanced Standing Program	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Soc, An, Social Work, CJ

Credit Total

34

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Program director:

Maria Beam

Director of internships:

Stephanie Brandimarte

Program coordinator:

Maria Beam

513 Varner

(248) 370-3166

devoogd@oakland.edu

Program Description

The Master of Social Work (M.S.W) degree program at Oakland University provides students with the requisite theoretical knowledge, skills, and ethical framework for advanced social work practice with diverse client systems across practice settings. OU M.S.W students will be uniquely trained through an integrated advanced generalist. All M.S.W students will demonstrate advanced mastery of nine Core Competencies dictated by the CSWE, which will allow them to assume clinical and macro social work practice roles upon graduation. Students who wish to pursue licensure as clinical or macro social workers after graduation will have the necessary course preparation and field experience to do so.

Those students who seek more intensive training in a specialized area will have the option to complete one of three specializations (integrated health, community, and organizational leadership or

school social work). Depending how students enter the M.S.W program, (Advanced Standing versus Traditional) students have two options for completing the proposed M.S.W degree: a Traditional curriculum, including 64 hours of coursework and 900 hours of field education, and an Advanced Standing program that requires 34 credit hours of coursework and 450 hours of field education.

Accreditation

The Oakland University's Master of Social Work Program is accredited by the Council on Social Work Education's (CSWE) Board of Accreditation (BOA). Accreditation of a baccalaureate or master's social work program by the BOA indicates that it meets or exceeds standards of program quality evaluated through a peer review accreditation process. An accredited program has sufficient resources to meet its mission and goals and the BOA has verified that it demonstrates compliance with all sections of the Educational Policy and Accreditation Standards (EPAS). The Oakland University M.S.W. program is in the candidacy of accreditation by the Council of Social Work Education (CSWE). Any student who earns an M.S.W degree while the program is in candidacy is considered graduated from an accredited social work program.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Prospective students will apply through the OU Graduate Admissions for admittance into the program for the Summer Semester (advanced standing).

- The advanced MSW will accept students on a rolling admission (summer admission only), however we have recommended dates: February 15 (regular) and April 15 (late) or until our cohort is filled or until June 1st, whichever comes first. Students may apply for an early admission decision if it is submitted by December 15 of the prior year.
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Additional documents students must include in their application package are:
 - Recommendation for Graduate Admission form: Two recommendation forms must include letters attached to the forms and must speak to the applicant's academic and/or professional suitability for advanced study in Social Work; at least one of these must be from a professor or instructor. It is also preferred, if possible a letter comes from your BSW field instructor or liaison;

- A personal statement that will be used to assess preparation for and commitment to advanced study in Social Work, suitability for the profession, and skills in written communication; and
- One-page resume including volunteer, internship or paid work experience relevant to Social Work practice.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Undergraduate Preparation for the M.S.W.

Degrees in a wide variety of majors will prepare the student for admission, providing that the record includes:

Advanced Standing

A student with a BSW degree from a CSWE accredited program may be considered for the advanced standing program if the student received a BSW degree.

- For advanced standing students, a minimum cumulative GPA of 3.25 in BSW coursework is required.

Students must have successful completion (grade of C- or better) of undergraduate courses in social and behavioral sciences (12 credit hours, drawing from sociology, psychology, government, economics, or related disciplines), research (4 credit hours), and biology with human content (4 credit hours). These courses may be completed at the introductory level.

Students with lower GPAs may be considered for provisional admission when combined with volunteer work and work experience, or when there are extenuating circumstances. The Admissions Committee will assess a GPA between 2.7 and 3.0, generally for provisional acceptance. Provisional applicants will be admitted on a part-time basis. These applicants may petition the admission committee by explaining reasons for their lower GPA and how the student plans to overcome such difficulties while attending full-time. Students with GPAs lower than a 2.7 will need to provide a strong rationale in the personal statement and may require an interview with the admission committee for a decision.

Students otherwise qualified for admission to the program but lacking in this area may be admitted with the requirement that the deficiency be corrected during the first year of the program by appropriate coursework. A departmental adviser will plan with the student an appropriate way of addressing the deficiency. Credits earned to meet these standards will not be counted toward the total credits needed for the degree.

Degree Requirements

The Master of Social Work degree is awarded upon satisfactory completion of 34 credits for the Advanced Standing Program.

Course Requirements

a. Foundation Requirements (2 credits)

- SW5500 Advan Generalist Seminar Bridg Advanced Generalist Seminar Bridge Course (2 credits)

b. Core Requirements (16 credits)

- SW6101 Cultural Humility in SW Prac Cultural Humility in Social Work Practice (2 credits)
- SW6100 Adv Pract with Indv, Fam, Grps Advanced Practice with Individuals, Families and Groups (4 credits)
- SW6102 Applied Social Work Research Applied Social Work Research (4 credits)
- SW6202 Policy II: Advocacy and Change Policy II: Advocacy and Change (2 credits)
- SW6200 Advanced Practice Advanced Practice with Organizations and Communities (4 credits)

c. Electives (8 credits)

Any 8 credits from the list below will serve toward degree completion:

- SW5430 Trauma-Informed Social Work Trauma-Informed Social Work (2 credits)
- SW5435 Assess. & Diag. Anx. Disorders Assessing and Diagnosing Anxiety Disorders (2 credits)
- SW5630 Adv SW Prac in Behav Hlth I Advanced Social Work Practice in Behavioral Health I (4 credits)
- SW5730 Program Development & Evaluati Advanced Social Work Practice in Behavioral Health II (4 credits)
- SW5730 Program Development & Evaluati Program Development & Evaluation (4 credits)
- SW5740 Community Organizing Community Organizing (4 credits)
- SW5830 Policy/Pract of School SW Educ Policy and Practice of School Social Work in Educational Settings (4 credits)
- SW5835 Diagn. & Asmt Mental Hlth/ Edu Diagnosis & Assessment of Mental Health and Educational Disabilities in School Social Work (2 credits)
- SW5840 Soc Work Interventions Educ Se Social Work Interventions in an Educational Setting (2 credits)
- SW5440 Advance Practice with Groups Advance Practice with Groups (2 credits)
- SW5905 Special Topic in Social Work Special Topic in Social Work (2 or 4 credits)
- PA5500 Non-Profit Orgnztn & Mgt Nonprofit Organization and Management (3 credits)

- PA6300 Program and Policy Evaluation Program and Policy Evaluation (3 credits)
- PA6500 Fundraising & Philanthropy Fundraising and Philanthropy (3 credits)
- PA6510 Grants:Politics/Administration Grants: Politics and Administration (2 or 3 credits)
- SE6569 Foundations of ABA Foundations of ABA (3 Credits)
- CNS6600 Addictions in Counseling Addictions in Counseling (4 credits)
- PH5000 Fndations Hlth Behav/Hlth Ed Foundations of Health Behavior and Health Education (4 credits)

d. Internship (8 credits)

Students will do an internship while in the program.

- SW6950 Social Work Practicum III Social Work Practicum III (4 credits)
- SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)

Optional Concentrations

A student may earn a concentration within their Social Work degree by completing a structured set of electives (8 credits) along with SW 6950 and SW 6951.

1. Concentration in Behavior Health:

The M.S.W program offers an optional concentration area that focuses on integrating health and behavioral health practice. The curriculum is designed to meet the contemporary workforce needs with regard to healthcare reform and to underscore the major contributions MSW graduates are qualified to make in the future of healthcare systems that address both physical and behavioral health. The primary goal is to prepare graduates in this area with advanced generalist practice in clinical services, advocacy, and management roles in the dynamic fields of health care, mental, and behavioral healthcare.

- SW5630 Adv SW Prac in Behav Hlth I Advanced Social Work Practice in Behavioral Health I (4 credits)
- SW5640 Adv SW Prac in Behav Hlth II Advanced Social Work Practice in Behavioral Health II (4 credits)

The following Internship courses also satisfy the Concentration in Behavioral Health

- SW6950 Social Work Practicum III Social Work Practicum III (4 credits)
- SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)

2. Concentration in School Social Work

The M.S.W program offers an optional concentration area that focuses on school social work. Individuals employed as school social workers must meet the criteria set forth by the Michigan Department of Education (MDE) in the Public School Code.

- **SW5830 Policy/Pract of School SW Educ Policy and Practice of School Social Work in Educational Settings (4 credits)**
- **SW5835 Diagn. & Asmt Mental Hlth/ Edu Diagnosis & Assessment of Mental Health and Educational Disabilities in School Social Work (2 credits)**
- **SW5840 Soc Work Interventions Educ Se Social Work Interventions in an Educational Setting (2 credits)**

The following internship courses also satisfy the Concentration in School Social Work

- **SW6950 Social Work Practicum III Social Work Practicum III (4 credits)**
- **SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To earn an M.S.W degree, the student must have the following

- Completion of each required and elective course in the student's program of study with a grade of B- or higher, and a cumulative GPA of 3.0 or higher.
- Satisfactory completion of the required 450 hours of supervised field instruction for the advanced standing and 900 hours of supervised field instruction for the traditional MSW program.
- Satisfaction of all other academic and professional qualifications as published by the appropriate governing bodies of the university.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

For students entering the Advanced Standing M.S.W. program, it can be completed within one (1) calendar year of full-time study or within (2) calendar years of part-time study. To For students entering the Traditional M.S.W. program, it can be completed within two (2) calendar years of full-time study or (4) calendar years of part-time study. To meet requirements for the master's degree a program may also provide a maximum of four (4) calendar years of structured part-time professional education, comprising all course work, papers or projects, and the field practicum.

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Limited Standing and Special Graduate Status

Students who are admitted with limited standing to the program must have the condition removed before undertaking the second year of the program. Students who have special graduate status may take up to three courses in the program without formal admission to the program; to proceed further in the course sequence requires admission to the program. Upon attaining full graduate status, the student will receive credit toward the program for the work done as a special graduate student.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Social Work: Traditional Program, Master of Social Work

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MSW	Social Work: Traditional Program, Master of Social Work	Major

Program Type

Master

College/School

College of Arts and Sciences (AS)

Department(s)

Soc, An, Social Work, CJ

Credit Total

64

Delivery Method Required

In Person

**Summer
Semesters**

0

Requirements

Program Requirements

Program Director:

Maria Beam

Director of Internships:

Stephanie Brandimarte

Program Coordinator:

Maria Beam

513 Varner

(248) 370-3166

devoogd@oakland.edu

Program Description

The Master of Social Work (M.S.W) degree program at Oakland University provides students with the requisite theoretical knowledge, skills, and ethical framework for advanced social work practice with diverse client systems across practice settings. OU M.S.W students will be uniquely trained through an integrated advanced generalist. All M.S.W students will demonstrate advanced mastery of nine Core Competencies dictated by the Council on Social Work Education (CSWE), which will allow them to assume clinical and macro social work practice roles upon graduation. Students who wish to pursue licensure as clinical or macro social workers after graduation will have the necessary course preparation and field experience to do so.

Those students who seek more intensive training in a concentration area will have the option to complete one of two concentrations (Behavioral Health or School Social Work). Depending how students

enter the M.S.W program, (Advanced Standing versus Traditional) students have two options for completing the proposed M.S.W degree: a Traditional curriculum, including 64 hours of coursework and 900 hours of field education, and an Advanced Standing program that requires 34 credit hours of coursework and 450 hours of field education.

The traditional program of study includes one year of foundational coursework on the principles of social work as a profession (including issues of social justice, diversity, and professional ethics), conducting and critiquing research, generalist practice in social work across a variety of scales and systems, and understanding human behavior. In their second year, students master advanced generalist practice across the life course, and may choose two courses focused on practice in distinct contexts (restricted electives). Students also complete 450 hours of supervised field education in the first year, and 450 hours in the second year, to reach the 900 hours.

Accreditation

Oakland University's Master of Social Work Program is accredited by the Council on Social Work Education's (CSWE) Board of Accreditation (BOA). Accreditation of a baccalaureate or master's social work program by the BOA indicates that it meets or exceeds standards of program quality evaluated through a peer review accreditation process. An accredited program has sufficient resources to meet its mission and goals and the BOA has verified that it demonstrates compliance with all sections of the Educational Policy and Accreditation Standards (EPAS).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Prospective students will apply through the OU Graduate Admissions for admittance into the program for the Fall Semester (traditional program).

- The traditional MSW will accept students on a rolling admission (fall admission only), however, we have recommended dates: February 15 (regular) and April 15 (late) or until our cohort is filled or until June 1st, whichever comes first. Students may apply for an early admission decision if it is submitted by December 15 of the prior year.

- **International applicants**

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

- **Additional department application requirements**

- Additional documents students must include in their application package are:
 - Recommendation for Graduate Admission form
 - Two recommendation forms must include letters attached to the forms and must speak to the applicant's academic and/or professional suitability for advanced study in Social Work; at least one of these must be from a professor or instructor;
 - A personal statement that will be used to assess preparation for and commitment to advanced study in Social Work, suitability for the profession, and skills in written communication; and
 - One-page resume including volunteer, internship or paid work experience relevant to Social Work practice.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Undergraduate Preparation for the M.S.W.

Degrees in a wide variety of majors will prepare the student for admission, providing that the record includes:

Traditional

- For admission into the traditional 2-year M.S.W program, a baccalaureate degree from a regionally accredited U.S. institution or its equivalent from a foreign institution with a GPA of 3.0 or higher in all work attempted in the last 60 credit hours of undergraduate study is required.

Students must have successful completion (grade of C- or better) of undergraduate courses in social and behavioral sciences (12 credit hours, drawing from sociology, psychology, government, economics, or related disciplines), research (4 credit hours), and biology with human content (4 credit hours). These courses may be completed at the introductory level.

Students with lower GPAs may be considered for provisional admission when combined with volunteer work and work experience, or when there are extenuating circumstances. The Admissions

Committee will assess a GPA between 2.7 and 3.0, generally for provisional acceptance. Provisional applicants will be admitted on a part-time basis. These applicants may petition the admission committee by explaining reasons for their lower GPA and how the student plans to overcome such difficulties while attending full-time. Students with GPAs lower than a 2.7 will need to provide a strong rationale in the personal statement and may require an interview with the admission committee for a decision.

Students otherwise qualified for admission to the program but lacking in this area may be admitted with the requirement that the deficiency be corrected during the first year of the program by appropriate coursework. A departmental adviser will plan with the student an appropriate way of addressing the deficiency. Credits earned to meet these standards will not be counted toward the total credits needed for the degree.

Degree Requirements

The Master of Social Work degree is awarded upon satisfactory completion of 64 credits for the Traditional Program.

Course Requirements

a. Foundation Requirements (24 credits)

- **SW5100 FDTNs of Generalist Pract I** Foundations of Generalist Practice I (4 credits)
- **SW5101 Human Behav/Social Environ I** Human Behavior and the Social Environment I (4 credits)
- **SW5102 Social Welfare Policies** Social Welfare Policies (4 credits)
- **SW5200 FDTNs of Generalist Pract II** Foundations of Generalist Practice II (4 credits)
- **SW5201 Human Behav/Social Environ II** Human Behavior in The Social Environment II (4 credits)
- **SW5202 Fundamentals of Soc Work Resea** Fundamentals of Social Work Research (4 credits)

b. Core Requirements (16 credits)

- **SW6101 Cultural Humility in SW Prac** Cultural Humility in Social Work Practice (2 credits)
- **SW6100 Adv Pract with Indv, Fam, Grps** Advanced Practice with Individuals, Families and Groups (4 credits)
- **SW6102 Applied Social Work Research** Applied Social Work Research (4 credits)
- **SW6202 Policy II: Advocacy and Change** Policy II: Advocacy and Change (2 credits)
- **SW6200 Advanced Practice** Advanced Practice with Organizations and Communities (4 credits)

c. Electives (8 credits)

Any 8 credits from the list below will serve toward degree completion:

- **SW5430 Trauma-Informed Social Work** Trauma-Informed Social Work (2 credits)
- **SW5435 Assess. & Diag. Anx. Disorders** Assessing and Diagnosing Anxiety Disorders (2 credits)
- **SW5440 Advance Practice with Groups** Advance Practice with Groups (2 credits)
- **SW5630 Adv SW Prac in Behav Hlth I** Advanced Social Work Practice in Behavioral Health I (4 credits)
- **SW5640 Adv SW Prac in Behav Hlth II** Advanced Social Work Practice in Behavioral Health II (4 credits)
- **SW5730 Program Development & Evaluati** Program Development & Evaluation (4 credits)
- **SW5740 Community Organizing** Community Organizing (4 credits)
- **SW5830 Policy/Pract of School SW Educ** Policy and Practice of School Social Work in Educational Settings (4 credits)
- **SW5835 Diagn. & Asmt Mental Hlth/ Edu** Diagnosis & Assessment of Mental Health and Educational Disabilities in School Social Work (2 credits)
- **SW5840 Soc Work Interventions Educ Se** Social Work Interventions in an Educational Setting (2 credits)
- **SW5905 Special Topic in Social Work** Special Topic in Social Work (2 or 4 credits)
- **PA5500 Non-Profit Orgnztion & Mgt** Nonprofit Organization and Management (3 credits)
- **PA6300 Program and Policy Evaluation** Program and Policy Evaluation (3 credits)
- **PA6500 Fundraising & Philanthropy** Fundraising and Philanthropy (3 credits)
- **PA6510 Grants:Politics/Administration** Grants: Politics and Administration (2 or 3 credits)
- **SE6569 Foundations of ABA** Foundations of ABA (3 Credits)
- **CNS6600 Addictions in Counseling** Addictions in Counseling (4 credits)
- **PH5000 Fndations Hlth Behav/Hlth Ed** Foundations of Health Behavior and Health Education (4 credits)

d. Internship (16 credits)

Students will do an internship while in the program.

- **SW5950 Social Work Practicum I** Social Work Practicum I (4 credits)
- **SW5951 Social Work Practicum II** Social Work Practicum II (4 credits)

- **SW6950 Social Work Practicum III Social Work Practicum III (4 credits)**
- **SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)**

Optional Concentrations

A student may earn a concentration along with their Social Work degree by completing a structured set of electives (8 credits) along with SW 6950 and SW 6951.

1. Concentration in Behavioral Health:

The M.S.W program offers an optional concentration area that focuses on integrating health and behavioral health practice. The curriculum is designed to meet the contemporary workforce needs with regard to healthcare reform and to underscore the major contributions MSW graduates are qualified to make in the future of healthcare systems that address both physical and behavioral health. The primary goal is to prepare graduates in this area with advanced generalist practice in clinical services, advocacy, and management roles in the dynamic fields of health care, mental, and behavioral healthcare.

- **SW5630 Adv SW Prac in Behav Hlth I Advanced Social Work Practice in Behavioral Health I (4 credits)**
- **SW5640 Adv SW Prac in Behav Hlth II Advanced Social Work Practice in Behavioral Health II (4 credits)**

The following Internship courses also satisfy the Concentration in Behavioral Health

- **SW6950 Social Work Practicum III Social Work Practicum III (4 credits)**
- **SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)**

2. Concentration in School Social Work

The M.S.W program offers an optional concentration area that focuses on school social work. Individuals employed as school social workers must meet the criteria set forth by the Michigan Department of Education (MDE) in the Public School Code.

- **SW5830 Policy/Pract of School SW Educ Policy and Practice of School Social Work in Educational Settings (4 credits)**
- **SW5835 Diagn. & Asmt Mental Hlth/ Edu Diagnosis & Assessment of Mental Health and Educational Disabilities in School Social Work (2 credits)**
- **SW5840 Soc Work Interventions Educ Se Social Work Interventions in an Educational Setting (2 credits)**

The following internship courses also satisfy the Concentration in School Social Work

- **SW6950 Social Work Practicum III Social Work Practicum III (4 credits)**

- **SW6951 Social Work Practicum IV Social Work Practicum IV (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To earn an M.S.W degree, the student must have the following

- Completion of each required and elective course in the student's program of study with a grade of B- or higher, and a cumulative GPA of 3.0 or higher.
- Satisfactory completion of the required 450 hours of supervised field instruction for the advanced standing and 900 hours of supervised field instruction for the traditional MSW program.
- Satisfaction of all other academic and professional qualifications as published by the appropriate governing bodies of the university.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

For students entering the Advanced Standing M.S.W. program, it can be completed within one (1) calendar year of full-time study or within (2) calendar years of part-time study. To For students entering the Traditional M.S.W. program, it can be completed within two (2) calendar years of full-time study or (4) calendar years of part-time study. To meet requirements for the master's degree a program may also provide a maximum of four (4) calendar years of structured part-time professional education, comprising all course work, papers or projects, and the field practicum.

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Limited Standing and Special Graduate Status

Students who are admitted with limited standing to the program must have the condition removed before undertaking the second year of the program. Students who have special graduate status may take up to three courses in the program without formal admission to the program; to proceed further in the course sequence requires admission to the program. Upon attaining full graduate status, the student will receive credit toward the program for the work done as a special graduate student.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Optional

Elementary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MAT	Elementary Education	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

45

Delivery Method Required

in person

Summer Semesters

1

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))
teach@oakland.edu
www.oakland.edu/teach

Coordinator:

Cynthia Carver
 470F Pawley Hall
carver2@oakland.edu

Advising:

SEHS Advising
 363 Pawley Hall
 (248) 370-4182
matinfo@oakland.edu

Program Description

Oakland University's Master of Arts in Teaching in Elementary Education (MATEE) program is designed for individuals who hold a bachelor's degree in another discipline and are now seeking a career in teaching. The MATEE program is a 5-semester (20-month) teacher certification program that will prepare individuals for a career in teaching at the elementary level. This is a dual certification program (grade bands PK-3 and 3-6) that combines teacher education coursework, three field placements in local schools, and a semester-long student teaching internship.

Program Delivery

Courses are taken as a cohort with coursework beginning in the fall semester. All face-to-face classes are held on OU's main campus two weekday evenings per week and up to one Saturday a month. Some online coursework is required in addition to the in-person classes. Students are required to complete 120+ hours of field experiences prior to student teaching. During the field placements, students will actively engage in the classroom routines, observe instruction, work with small groups of students, and implement lessons. Field placements are arranged to afford students depth, breadth, and diversity of authentic learning experiences in schools where they can apply what they are learning in a real classroom.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received by the Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early), May 1 (regular), and July 15 (late) for the fall semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Goal statement
 - Resume (Curriculum Vitae)
 - Requirements for Recommendations:
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - One online recommendation form must be from an individual in a supervisory relationship to the applicant.
 - Official transcripts will be required demonstrating: a cumulative grade-point average of 3.0 or better (improved grades in recent coursework will be considered).
 - Master of Arts in Teaching Graduate School Application Acknowledgement form
 - Individual interviews may be conducted in addition to these requirements

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their

undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Degree Requirements

The Master of Arts in Teaching in Elementary Education degree is awarded upon satisfactory completion of a minimum of 45 credits in an approved program of study. To be recommended for a Standard Michigan Teaching Certificate at the PK-3 and 3-6 grade bands, students must successfully complete requirements for the MAT in Elementary Education degree, earn a minimum grade of a B in EED 6950, and successfully pass the required MTTC exams. Successful completion of our program and internship does not guarantee certification by the State of Michigan.

Course Requirements (45 credits)

Required courses:

- **EED5600 Foundations 1 Foundations 1 (4 credits)**
- **EED5000 Content for Teaching - Elem Content for Teaching - Elementary (4 credits)**
- **EED5620 Foundations 2 Foundations 2 (3 credits)**
- **RDG5200 Early Literacies Early Literacies (3 or 4 credits)**
- **EED5300 Elem Math Methods 1 Elementary Mathematics Methods 1 (4 credits)**
- **RDG5240 Advanced Literacies Advanced Literacies (3 credits)**
- **EED5340 Elem Math Methods 2 Elementary Mathematics Methods 2 (3 credits)**
- **EED6600 Foundations 3 Foundations 3 (3 credits)**
- **EED5400 Elem Science Methods Elementary Science Methods (4 credits)**
- **EED5500 Elem Soc Studies Methods Elementary Social Studies Methods (4 credits)**
- **EED6620 Foundations 4 Foundations 4 (3 credits)**
- **EED6950 Internship in Elementary Ed Internship in Elementary Education (6 credits) ***
- *Student teaching must be done during the K-12 school year.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In order to remain in good standing, graduate students must earn a grade-point average of 3.0. No grade below 3.0 can be applied toward a graduate degree. Two-course grades below 3.0 or one below 2.0 automatically lead to an evaluation of progress and possible dismissal.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants will be provided with a plan of study that details specific courses the students will use to satisfy their degree requirements. This program runs as a cohort and has a predetermined course schedule. The plan of study must be approved by the student and program adviser, then submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number

of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MAT	Secondary Education	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

37

Delivery Method Required

In Person

Summer Semesters

2

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))teach@oakland.eduwww.oakland.edu/teach

Coordinator

Anthony Tuf Francis

485G Pawley Hall

(248) 370-4182

akfranci@oakland.edu

Advising:

SEHS Advising

363 Pawley Hall

(248) 370-4182

matinfo@oakland.edu

Program Overview

The Master of Arts in Teaching Secondary Education degree, is a part of the Secondary Teacher Education Program (STEP) which prepares students to teach in a middle or high school setting. The master's only program is designed for career changers or individuals who hold a bachelor's degree and are now seeking a career in teaching. Students who complete the master of arts in teaching program are eligible for recommendation for a Michigan standard teaching certificate for the 5-9 & 7-12 grade bands.

The program combines teacher education coursework, three field placements in local schools, and a semester long (15-week) student teaching internship.

Courses are taken as a cohort with coursework beginning in the winter semester. All classes are held on OU's main campus weekday evenings, and there is some online coursework. The five-semester program includes multiple clinical placements throughout and culminates into a year-long clinical internship in a local school. The first internship (fall), called pre-student teaching, is a halftime clinical placement in a school district with a skilled mentor teacher. The final internship semester (winter), called the student teaching internship, entails a full-time semester-long assignment in the same classroom with the same mentor.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- Applications for winter admission are due on May 1st. Late applications will be considered if there are openings in the program.
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines. A teachable major is required for admission, so prior to applying, all applicants must have a transcript evaluation done to determine program eligibility. If you have questions, contact the contact the SEHS advising office at matinfo@oakland.edu.

1. Graduate Application Requirements

2. Additional department application requirements

- Goal Statement - in two pages or less, please include a short biography, your professional goals, and respond to the following:
 - What experiences have led you to believe you would enjoy teaching middle/high school students?
 - What abilities do you have that lead you to believe you can facilitate a productive classroom?
 - What knowledge, experience or personal attributes do you have that will benefit your students?
- Resume (Curriculum Vitae)
- Completion of prerequisite coursework in one of the content areas of: English language arts, mathematics, integrated science, or social studies. The teachable program requires a 3.0 cumulative GPA, with no single course below a C. Prior to applying, all applicants must have a transcript evaluation conducted to determine eligibility- email matinfo@oakland.edu. Additional

prerequisite coursework may be required depending on content requirements determined by OU's agreement with the Michigan Department of Education.

- Official transcripts will be required demonstrating: a cumulative grade-point average of 3.0 or better (improved grades in recent coursework will be considered)
- **Read the Michigan Code of Educational Ethics**
- Admission to STEP is granted by the School of Education and Human Services and required before pursuing professional education graduate coursework. Meeting the minimum requirements does not guarantee admission. Qualitative criteria may be required as well.
- Master of Arts in Teaching Graduate School Application Acknowledgement form
- **Requirements for Recommendations:**
The two online recommendations must be from individuals in a supervisory relationship to the applicant.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Prerequisite Content Coursework

- **English Language Arts (Middle & High School Certification)**
- **Mathematics (Middle & High School Certification)**
- **Social Studies (Middle & High School Certification)**
- **Integrated Science (Middle & High School Certification)**

Degree Requirements

The program requires a bachelor's degree, an approved program plan for prerequisite content coursework, and 37 credits of graduate education coursework. A grade of B or better is required in all graduate level courses.

Course Requirements (37 credits)

The course sequence is subject to minor changes depending on instructor availability. The Internship in Secondary Education (student teaching semester) must be done during the school year.

Fall I

- **SED5000 Foundations 1 Foundations 1: Introduction to Secondary Education (3 credits)**
- **SED5150 How People Learn How People Learn: A Focus on Adolescence (3 credits)**

- **RDG5558 Disciplinary Literacies Disciplinary Literacies**

Winter I

- **SED5100 Teaching for Diversity, Equity Teaching for Diversity, Equity and Inclusion in Secondary Schools (3 credits)**
- **SED5110 Instruction 1 INSTRUCTION 1: Introduction to Secondary Methods (3 credits)**
- **SE5500 The Exceptional Student The Exceptional Student (2 credits)**

Fall II

- **SED5210 Instruction 2: Methods in Disc Instruction 2: Methods in the Discipline (3 credits)**
- **SED5600 Foundations 2 Foundations 2: Supporting Learning through Skillful Teaching (3 credits)**
- **TD5955 Internship/Secondary Ed Internship in Secondary Education (2 credits)**

Winter II

- **SED5955 Student Teaching Internship Student Teaching Internship (6 credits)**
- **SED5650 Foundations 3 Foundations 3: Developing as a Professional (3 credits)**

Summer II

- **SED6000 Instruction 3: Adv Instruction Instruction 3: Advanced Instruction (3 credits)**

Clinical Experiences

All students will be expected to complete field placement hours that meet or exceed the minimum requirement of 600 hours set by the state of Michigan. Additional field hours (beyond those required in seminar) will be met through methods courses, in-class attention to authentic practice, and frequent field-based assignments that occur throughout the program.

Note: State requirements are such that candidates must meet clinical hour minimums within each grade band, with one band being primary. For this reason, Oakland's STEP program has been designed with the 7-12 grade band as primary. This means candidates will complete their student teaching at the high school level (defined as grades 9-12), with additional hours in two different strands of the middle grades (defined as grades 5-6 and 7-8) leading up to student teaching. Upon successful completion of SED 5955, all degree requirements other than SED 6000, and the corresponding Michigan Tests for Teacher Certification (MTTC) students will be recommended for a MI teaching certificate with endorsements in grades 5-9 and 7-12. Successful completion of SED 6000 is required in order to earn the master's degree.

All students must have experience at both the 5-9 and 7-12 grade bands, including time specifically in grades 5-6, 7-8, and 9-12.

Program Notes

Retention in the program is based on student demonstration of the characteristics, dispositions, skills, and conduct of members of the teaching profession.

In order to be recommended for a Michigan Teaching Certificate, in addition to the degree requirements, candidates must successfully complete their assigned Michigan Tests for Teacher Certification and be in compliance with all legal requirements for Michigan certification.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In order to remain in good standing, graduate students must earn a grade-point average of 3.0. No grade below 3.0 can be applied toward a graduate degree. Two course grades below 3.0 or one below 2.0 automatically lead to an evaluation of progress and possible dismissal.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants will be provided with a plan of study that details specific courses the students will use to satisfy their degree requirements. This program runs as a cohort and has a predetermined course schedule. The plan of study must be approved by the student and program adviser, then submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Social Studies with History for Educators/Teaching in Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MAT	Social Studies with History for Educators/Teaching in Secondary Education	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS), School of Education and Human Services (ED)

Department(s)

History

Credit Total

145

Delivery Method Required

In Person

Summer Semesters
1

Requirements

Program Requirements

Requirements for the Social Studies with History for Educators, BA/Teaching in Secondary Education, MAT, Combined BA/MAT

The Combined BA/MAT at Oakland University is a Bachelor of Arts (BA) granted by the College of Arts and Sciences to Master of Arts in Teaching in Secondary Education (MAT) granted by the School of Education and Human Services. This program leads to recommendation for Michigan Teacher certification in secondary education. At the undergraduate level, the combined BA/MAT program allows students to take four graduate level courses **SED5000 Foundations 1**, **SED5100 Teaching for Diversity, Equity**, **SED5110 Instruction 1** and **SED5150 How People Learn** while still an Undergraduate and pay Undergraduate tuition rates.

To earn a combined BA/MAT and be eligible for certification, students must complete the Social Studies with History for Educators, BA and the courses listed below:

Fall

- **SED5000 Foundations 1** Foundations 1: Introduction to Secondary Education (3)
- **SED5150 How People Learn** How People Learn (3)

Winter

- **SED5100 Teaching for Diversity, Equity** Teaching for Diversity, Equity and Inclusion (3)
- **SED5110 Instruction 1** Instruction I: Introduction to Secondary Methods (3)

Fall

- **RDG5558 Disciplinary Literacies** Disciplinary Literacy (3)
- **SED5210 Instruction 2: Methods in Disc** Instruction 2: Methods in the Discipline (3)
- **SED5600 Foundations 2** Foundations 2: Supporting learning through Skillful Teaching (3)
- **TD5955 Internship/Secondary Ed** Student Teaching Internship A (2)

Winter

- **SED5650 Foundations 3** Foundations 3: Developing as a Professional (3)
- **SED5955 Student Teaching Internship** Student Teaching (6)

Summer

- **SED6000 Instruction 3: Adv Instruction** Instruction 3: Advanced Instruction (3)
 - Required course taken post full year internship
- **SE5500 The Exceptional Student** The Exceptional Student (2)

Requirements for Application to the Combined BA/MAT

Students are eligible to apply to the combined BA/MAT program once they have successfully completed the required pre-professional and pre-program content coursework, which requires having met the following criteria:

Complete the Graduate Application and receive delayed admission into the MAT program due by May 1st of each year. (Late applications will be considered with discretion.) Complete a minimum of 24 credits in the Social Studies with History for Educators major and have a cumulative GPA of at least 3.0.

Additional department application requirements:

- Goal statement
- Resume (Curriculum Vitae)

- One recommendation (must be from individuals in a supervisory relationship to the applicant, using the e-form provided by the Graduate School)
- Felony Misdemeanor Disclosure Form
- Michigan Code of Educational Ethics Acknowledgement Form

NOTE: Individual interviews may be conducted in addition to these requirements.

For additional information please contact Anthony Tuf Francis (akfranci@oakland.edu) in the **School of Education** 485G Pawley Hall at (248) 370-2491.

To successfully complete the program and earn a Masters of Arts in Teaching in Secondary Education, students must meet each of the requirements outlined below:

- Complete the required undergraduate, major specific courses with a C or better
- Complete the 37-credit graduate level courses professional sequence with a grade of B or higher in each course and fulfill the 600 field hour requirement
- Professional courses may not be older than 6 years upon graduation
- To be eligible for a Michigan Teaching Certificate, graduates must be in compliance with all legal curricular requirements.

Additional Information

Students enrolled in the previous Secondary Teacher Education Program (STEP) programs will have the option to complete their current program or transition into the BA/MAT in Secondary Education through the expiration of the current Michigan teacher certification requirements in the 2028-2029 academic year.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Reading and Language Arts

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	MAT	Reading and Language Arts	Major

Program Type

Master

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

30

Delivery Method Required

Fully Online

Summer Semesters
2

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))

teach@oakland.edu

www.oakland.edu/teach

Coordinator:

Dr. Jason Moore

jasonmoore@oakland.edu

Program Description

Most Master of Arts in Teaching-Reading and Language Arts students are classroom teachers whose daily work requires them to deal with the literacy needs of young children, adolescents or adults. Instruction in the MAT program prepares classroom teachers to work effectively and efficiently in settings where class sizes may range from 5 to 40 or more learners. The MAT program allows certified teachers to add a Michigan endorsement as a Reading Specialist (BR). To add the endorsement, candidates must complete the coursework and pass the state of Michigan endorsement test before the endorsement can be issued by the State.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University's Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Admission is rolling, and students will be able to be admitted for the next academic semester subsequent to your application submission (fall, winter, or summer).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University's Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Admission is rolling, and students will be able to be admitted for the next academic semester subsequent to your application submission (fall, winter, or summer).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University's Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Admission is rolling, and students will be able to be admitted for the next academic semester subsequent to your application submission (fall, winter, or summer).

- **International Applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

In addition to the Graduate School online application (<https://gradapply.oakland.edu/apply/>), you'll need the following:

- Two recommendation forms
- Official transcripts from previous academic work

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University's Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

The department considers only those applicants who hold baccalaureate degrees from regionally accredited institutions. While an undergraduate grade-point average of at least 3.0 is the minimum standard for admission, other factors bearing on potential academic success are given due consideration.

Degree Requirements

The Master of Arts in Teaching Reading and Language Arts degree is awarded upon satisfactory completion of 30 credits in an approved program of study.

Course Requirements (30 credits)

8 classes across two years:

Required courses:

- **RDG5520 Foundation Rdg Instruct Foundations of Reading Instruction (3 credits) (fall semester)**
- **RDG5558 Disciplinary Literacies Disciplinary Literacies (4 credits) (winter semester)**
- **RDG6996 Master's Practicum Master's Project (4 credits) (summer semester)**
- **RDG5542 Tch Writg Elem/Sec Schools Teaching Writing in the Elementary and Secondary Schools (4 credits) (summer semester)**
- **RDG5640 Leadership Literacy Instruct Leadership in Literacy Instruction (4 credits) (fall semester)**
- **RDG5533 Literature:Middle/Senior Schls Adolescent Literature in Middle Schools, Junior and Senior High Schools (3 credits) (winter semester)**
- **RDG6962 Literacy Assessment Literacy Assessment (4 credits) (summer semester)**
- **RDG6963 Assessment-Based Literacy Inst Assessment-Based Literacy Instruction (4 credits) (summer semester)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biological and Biomedical Sciences

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Biological and Biomedical Sciences	Major

Program Type

Doctorate

College/School

College of Arts and Sciences (AS)

Department(s)

Biological Sciences

Credit Total

80

Delivery Method Required

main campus

Summer Semesters
0

Requirements

Program Requirements

Department of Biological Sciences

375 Dodge Hall ([map](#))

(248) 370-3550 • Fax (248) 370-4225

www.oakland.edu/biology

Program Coordinator:

Sara Blumer-Schuette

biogradprograms@oakland.edu

Program Description

The Doctor of Philosophy in Biological and Biomedical Sciences allows the student to conduct research in any one of a variety of disciplines within biology. Areas of research include biochemistry, cell biology, cancer biology, developmental biology, ecology, evolution, genetics, immunology, microbiology, physiology, and stem cell biology. A student in the program will conduct dissertation research under the direction of a faculty member in or affiliated with the Department of Biological Sciences. For an overview of research opportunities in Biological Sciences, visit the faculty research web page (<https://www.oakland.edu/biology/research>).

Admission Terms and Application Deadlines

Applicants are primarily admitted for fall semester. Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadline listed below.

Typically, applicants to this program are admitted for the fall semester. Review of applications will begin on the following dates:

- January 15 for fall semester

- **International students:** January 15 for fall semester

Applications received after the program due date, but before University deadlines, may be reviewed, subject to space availability.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Additional Recommendation for Graduate Admission form
In addition to the two recommendations listed above, a third recommendation is required by the program.
Requirements for recommendations:
Three recommendation forms must be submitted directly by individuals who can evaluate the applicant's potential for graduate-level scientific research.
 - Applicants must have a strong academic background in biology, particularly in their field of interest. Undergraduate academic record should also typically include physics, calculus and statistics.
 - An essay describing their interest in the program, expectations of what graduate study entails, and career goals.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Biological Sciences Ph.D. Committee

The Ph.D. in Biological and Biomedical Sciences is offered by the Department of Biological Sciences within the College of Arts and Sciences. This program is administered by the Biological Sciences Graduate Programs Committee, which is appointed by the chair of the Department of Biological Sciences. This committee is responsible for preliminary screening of applications for admission, approval of dissertation committees, approval of course selections by each student, certification of fulfillment of proficiency requirements by each student, administration of preliminary examinations for each student, and proposal of any modifications in degree requirements for students.

Credit Reduction

Accepted applicants who have previously earned a master's degree from Oakland University or another regionally accredited university may request to apply up to 32 credits of lecture courses toward their doctoral degree. This petition must be approved by the Biological Sciences Graduate Programs Committee and Oakland University

Graduate School. Any classes used for credit reduction must be graduate-level credits with a grade of 3.0 (B) or above in each course and be approved by the Biological Sciences Graduate Programs Committee and Oakland University Graduate School.

Degree Requirements

The Doctor of Philosophy in Biological and Biomedical Sciences degree is awarded upon satisfactory completion of 80 credits in an approved program of study, successful performance on an oral and written comprehensive examination, and successful completion of a dissertation.

Course Requirements (80 credits)

a. Core Requirements (34 credits)

- **BIO7010 Biological and Biomedical Sci Biological and Biomedical Sciences (4 credits)**
- **SCI5110 Ethics and Practice of Science Ethics and Practice of Science (2 credits)**
- **BIO6995 Graduate Research Graduate Research (1 to 8 credits)**
- Choose five additional 5000-level courses in Biology (excluding BIO 5101, BIO 5600, and BIO 5602) approved by the student's adviser and the Biological Sciences Graduate Programs Committee.

b. Electives (26 credits)

- Additional graduate-level courses and/or research credits (**BIO6995 Graduate Research or BIO7999 Doctoral Research**) may be taken as electives mutually agreed upon by the student, adviser and dissertation committee (variable credits).

c. Dissertation (20 credits)

- **BIO7999 Doctoral Research Doctoral Research (1 to 12 credits per semester) (at least 20 credits required)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the Graduate Programs Committee and submitted to the Oakland University Graduate School by the Biological Sciences Graduate Advisor.

Preliminary Examination

Within two years after admission into the program, the student must pass a comprehensive written and oral examination. This examination consists of three written exams and an oral exam. The examination is intended to determine the extent of the student's knowledge and fitness for the doctoral degree and will be designed and evaluated by the Biological Sciences Graduate Programs Committee. If the student does not pass the examination, the Graduate Programs Committee may allow the student to retake the examination within one year.

Failure to pass the examination within two attempts shall constitute failure in the Ph.D. program.

Dissertation Committee

A dissertation committee consisting of at least three members, one of whom serves as dissertation adviser, will be chosen by mutual agreement of the student and his/her dissertation adviser, subject to approval by the Ph.D. program. The student's dissertation adviser will be chairperson of the committee. The committee is charged with the guidance of the student in course selection, review of dissertation proposals before initiation of a project, and approval of the completed dissertation.

Research and Dissertation

An integral and major component of the program is the successful completion of original research using state-of-the-art experimental or theoretical methods to study a problem of current interest. Each student shall, in consultation with their adviser, and within two years of entering the program, prepare a dissertation proposal outlining the problem to be studied, a survey of the appropriate literature, a description of the appropriate techniques, and an outline of the experiments to be performed. The student shall, at the request of the dissertation committee, orally defend the proposal or elaborate on the methods for data collection and analysis. The project shall be deemed ready for preparation of dissertation at such time as the student's committee agrees that the student has completed the project and that the student is an expert in the use of specific methods required by the project. At that time, the student shall prepare a doctoral dissertation for submission to the committee and shall defend the dissertation in a public oral examination conducted by the dissertation committee. Acceptance of the dissertation by Oakland University Graduate School requires favorable recommendations by the dissertation committee. All dissertations must conform to university standards (see [Thesis and Dissertation](#)).

Residence

All students are required to fulfill a residency requirement for this program. Although students may complete some of the program on a part-time basis, continuous full-time enrollment is highly preferred. The minimal residency requirement shall be full-time residency for at least three consecutive full semesters, with at least two of these devoted primarily to the student's research project.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met, and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

The maximum time limit for completing a Ph.D. degree is no more than 10 years from the term of the first-course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first-course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biomedical Sciences: Health and Environmental Chemistry

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Biomedical Sciences: Health and Environmental Chemistry	Major

Program Type

Doctorate

College/School

College of Arts and Sciences (AS)

Department(s)

Chemistry

Credit Total

80

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Chemistry

260 Mathematics and Science Center [\(map\)](#)

(248) 370-2320 • Fax (248) 370-2321

www.oakland.edu/chemistry/

Doctor of Philosophy in Biomedical Sciences

Program Committee members:

Yang Xia, Distinguished Professor of Physics

Xiangqun Zeng, Distinguished Professor of Chemistry

Coordinator:

Ngong Beyeh - Associate Professor of Chemistry

205 Mathematics and Science Center

(248) 370-2085

beyeh@oakland.edu

Program description

The College of Arts and Sciences offers a doctoral degree in biomedical sciences with a specialization in health and environmental chemistry which is centered in the Department of Chemistry. The program requires a strong academic background in the natural sciences. Graduates will complete a unified program of formal coursework, as well as independent dissertation research, and will possess the theoretical background and practical skills necessary for successful contribution to the solution of environmental and health-related chemical problems. Scientists who graduate with this specialization will be capable of applying

state-of-the-art methods to the determination, quantification and management of a wide variety of naturally occurring and synthetic chemical substances and the related chemical processes. No other doctoral program in Michigan focuses on these particular areas of chemistry, yet the contributions of highly trained doctoral-level scientists are essential to the resolution of major problems facing the nation in these areas.

Admission terms and application deadlines

Students are admitted to the Doctor of Philosophy in Biomedical Sciences program typically in the fall semester only. Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

All applicants to this program are admitted for the fall semester only. The application deadlines are:

- February 15 (early), April 15 (regular) and July 15 (late) for fall semester
- International applicants: May 1 for fall semester

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Requirements for recommendations: Three recommendation forms must be submitted directly by individuals who can evaluate the applicant's potential for graduate-level scientific research.
 - Applicants must have earned bachelor's degree in a natural science, mathematics, or other discipline relevant to health and environmental chemistry.
 - Proficiency at the undergraduate level in analytical chemistry, biochemistry, and two additional areas (inorganic chemistry, physical chemistry, cell biology, or physiology). Students who are not proficient may need to take additional coursework. Applicants with undergraduate prerequisite course deficiencies in these areas must complete the preparatory course work before being eligible for admission to the graduate program.
 - Applicants should have a minimum cumulative GPA of 3.0.
 - Although the Graduate Record Exam (GRE) is not required, the general or subject GRE may enhance the applicant's likelihood for acceptance into the program. Applicants may

arrange for their official GRE scores to be submitted to Oakland University; the institution code for Oakland University is 1497.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Biomedical Sciences Doctoral Program Committee

The program committee, appointed by the Dean of the College of Arts and Sciences, consists of one faculty member from each biomedical sciences specialization area (Health and Environmental Chemistry and Medical Physics) as well as the coordinator of graduate programs in the College of Arts and Sciences, who serves as chair of the program committee. The program committee advises the Dean of the College of Arts and Sciences on admission of students, selection of student committees, proposals for changes in degree requirements and approval of doctoral dissertations.

Biomedical Sciences doctoral program specialization committees

Two specialization committees, appointed by the Dean of the College of Arts and Sciences on recommendations from the chairs of the chemistry and physics departments, are responsible for preliminary screening of applications for admission, preliminary approval of dissertation committees, approval of course selections by each student, certification of fulfillment of proficiency requirements by each student, administration, and grading of preliminary examinations for each student, and proposal of any modifications in degree requirements for students in that specialization. Each specialization committee appoints specific faculty members to advise each incoming student selecting that specialization until the student's dissertation committee is established.

Transfer credits

Accepted applicants who have previously earned a master's degree from Oakland University or another regionally accredited university may request to apply up to 32 credits toward their doctoral degree. This petition must be approved by the Specialization in Health and Environmental Chemistry Committee and Oakland University Graduate School. Any credits transferred from an institution other than Oakland University must be graduate level credits with a grade of 3.0 or above in each course and be approved by the Specialization in Health and Environmental Chemistry Committee and Oakland University Graduate School.

Proficiency of entering students

Each student entering the program must demonstrate proficiency in specific areas of coursework. Upon entering the program the student must consult with the appropriate specialization adviser who will plan a program of coursework to eliminate any deficiencies in the student's preparation.

Degree requirements

The Doctor of Philosophy in biomedical sciences: health and environmental chemistry degree is awarded upon satisfactory completion of 80 credits in an approved program of study.

Course requirements (80 credits)

a. Core requirements (16 credits)

Analytical chemistry course (3 credits)

Choose one course from the following:

- [CHM5210 Advanced Analytical Chemistry](#) **Advanced Analytical Chemistry (3 credits)**
- [CHM5900 Topics in Analytical Chemistry](#) **Topics in Analytical Chemistry (3 credits)**
- [CHM5230 Chemical Separations](#) **Chemical Separations (3 credits)**
- or other approved course

Biochemistry and Toxicology courses (6 credits)

Choose two courses from the following:

- [CHM5530 Advanced Biochemistry](#) **Advanced Biochemistry (3 credits)**
- [CHM5902 Topics in Biochemistry](#) **Topics in Biochemistry (3 credits)**
- [CHM5550 Signal Transduction](#) **Signal Transduction (3 credits)**
- [CHM5810 Biochemical Toxicology](#) **Biochemical Toxicology (3 credits)**
- or other approved courses

Environmental science course (3 credits)

Choose one course from the following:

- [ENV5850 Environmental Fate & Transport](#) **Environmental Fate and Transport (3 credits)**
- [ENV5860 Toxic Substance Control](#) **Toxic Substance Control (3 credits)**
- [ENV5650 Organic Geochemistry](#) **Organic Geochemistry (3 credits)**
- [ENV5520 GIS Analysis for Sustainability](#) **GIS and Spatial Statistics (3 Credits)**
- [ENV5900 Topics in Environmental Science](#) **Special Topics in Environmental Science (2 to 4 credits)**
- or other approved course

Doctoral seminar (2 credits)

- [CHM6850 Health/Environmental Chemistry Seminar](#) **Seminar in Health and Environmental Chemistry (1 credit)**

- Attendance at departmental seminars is required.

Ethics (2 credits)

- [SCI5110 Ethics and Practice of Science](#) **Ethics and Practice of Science (2 credits)**

b. Advanced coursework related to dissertation area (9 credits)

c. Exit (20 credits)

- [CHM6995 Graduate Research](#) **Graduate Research (1 to 8 credits)**
- [CHM9999 Doctoral Research Chemistry](#) **Doctoral Research in Chemistry**

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree program requirements. The plan of study must be approved by the faculty program adviser and submitted to Oakland University Graduate School.

Dissertation committee

A dissertation committee consisting of at least three members, one of whom serves as dissertation adviser, will be chosen by the specialization committee and the student in question. The student's dissertation adviser will be chairperson of the committee. The committee is charged with the guidance of the student in course selection, review of dissertation proposals before initiation of a project, and approval of the completed dissertation.

Research and dissertation

An integral and major component of the program is the successful completion of original research using state-of-the-art experimental or theoretical methods to study a problem of current interest. Students shall, in consultation with their adviser, prepare a dissertation proposal outlining the problem to be studied, a survey of the appropriate literature, a description of the appropriate techniques, and an outline of the experiments to be performed. The student shall, at the request of the dissertation committee, orally defend the proposal or elaborate on the methods for data collection and analysis. Approval of the proposal by the committee is required prior to commencing research. The project shall be deemed ready for preparation of dissertation at such time as the student's committee agrees that the student has completed the project and that the student is an expert in the use of specific methods required by the project. At that time, the student shall prepare a doctoral dissertation for submission to the committee and shall defend the dissertation in a public oral examination conducted by the committee and attended by the specialization committee. Acceptance of the dissertation by Oakland University Graduate School requires favorable recommendations by the dissertation and specialization committee. All dissertations must conform to university standards (see [Thesis and Dissertation](#)).

Residence

All students are required to fulfill a residency requirement for this program. Although students may complete some of the program on a part-time basis, continuous full-time enrollment is highly preferred. The minimal residency requirement shall be full-time residency (12 credits per semester) for at least three consecutive full semesters with at least two of these devoted primarily to the student's research project.

Continuous enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each

subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time limits

The maximum time limit for completing a Ph.D. degree is no more than 10 years from the term of the first course enrollment in the doctoral program. The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Applied Mathematical Sciences

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Applied Mathematical Sciences	Major

Program Type

Doctorate

College/School

College of Arts and Sciences (AS)

Department(s)

Mathematics and Statistics

Credit Total

80

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Mathematics and Statistics

368 Mathematics and Science Center ([map](#))

(248) 370-3430 • Fax (248) 370-4184

<http://www.oakland.edu/math/>

Graduate Coordinator:

Li Li

350 Mathematics and Science Center

(248) 370-3447

li2345@oakland.edu

Program Description

The Doctor of Philosophy in Applied Mathematical Sciences degree program is designed with three specialization areas in applied mathematical sciences: applied continuous mathematics, applied discrete mathematics, and applied statistics. The program prepares students for employment in business, industry, or government, as well as traditional academic positions.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review. However, the applicant is encouraged to contact the Graduate Coordinator to discuss the application.

- February 15 (early), April 15 (regular), and July 15 (late) for fall semester

- October 1 (early) and November 15 (regular) for winter semester
- March 1 for summer semester
- International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. **Additional department application requirements**

- Recommendation requirements:**
Three recommendation forms are required. All must be from individuals who are capable of evaluating scholarly achievements and potential for independent research.
- A brief personal statement (not more than 500 words) describing their goals in pursuing the Ph.D. Applicants who wish to be considered for a teaching assistantship should also describe any prior teaching experience or other potentially relevant background. All application materials must be received no later than February 15 in order to be considered for a teaching assistantship appointment for the following academic year.
- A bachelor's degree from a regionally-accredited institution with at least a 3.0 grade-point average, with a major in one of the mathematical and statistical sciences, engineering, computer science, the physical sciences, the biological sciences, or the health sciences.
- Knowledge of a scientific programming language is strongly recommended.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Specific course prerequisites for regular admission into the program (with relevant Oakland University course numbers) include:

- Multivariable Calculus (MTH 2554)
- Linear Algebra (MTH 2775)
- Advanced Calculus (MTH 4552)

In addition, there are specialization prerequisites (with relevant Oakland University course numbers):

a. Applied Continuous Mathematics

- Differential Equations (required prerequisite) (APM 2555)

- Complex Variables (recommended prerequisite) (MTH 3552)

b. Applied Discrete Mathematics

- Abstract Algebra (recommended prerequisite) (MTH 4775)
- Discrete Mathematics (required prerequisite) (APM 2663)

c. Applied Statistics

Twelve credits in statistics are required. Example:

- STA 2226, Applied Probability and Statistics (4 credits)
- STA 4002, Applied Linear Models I (4 credits)
- STA 4003, Applied Linear Models II (4 credits)

Students who lack the necessary background may need to complete a few prerequisite undergraduate courses prior to regular admission into the program.

Degree Requirements

A minimum of 80 credits beyond the bachelor's degree is required for the Doctor of Philosophy in Applied Mathematical Sciences degree consisting of 60 credits (15 courses) of coursework, 20 credits of **APM9999 Doctoral Dissertation Research** or **STA9999 Doctoral Dissertation Research** (Dissertation Research). Up to 3 credits of **APM6945 Problem Solving Seminar** or **STA6945 Problem Solving Seminar** (Problem Solving Seminar) may be counted in the 20 dissertation credits.

Students who have earned a master's degree may petition to have prior coursework applied toward the 60 credits. The Committee on Graduate Programs will evaluate the student's prior master's degree work and allow Ph.D. credits for courses judged to be relevant to the proposed Ph.D. course of study. A maximum of 32 credits may be applied; all candidates must complete at least 28 credits of additional coursework exclusively at Oakland University.

In the Ph.D. program, courses awarded a grade of less than B will not count toward the degree; however, all numerical grades earned are used in computing a student's GPA, and an overall 3.00 GPA or better must be maintained.

Course Requirements (80 credits)

The course requirements and options for each specialization are as follows:

1. Applied Statistics Specialization (60 credits)

a. Specialization requirements (36 credits)

Required courses:

- **STA6113 Mathematical Statistics I** Mathematical Statistics I (4 credits)
- **STA6114 Mathematical Statistics II** Mathematical Statistics II (4 credits)

- **STA5227 Linear Statistical Models** Linear Statistical Models (4 credits)

Choose six courses from the following list; it is recommended that these six courses include one of the following sets of courses: (**STA5225 Stochastic Processes I**, **STA6115 Stochastic Processes II**), (**STA5221 Multivariate Stat Methods I**, **STA6221 Multivariate Stat Methods II**), (**STA5228 Reliability and Life Data I**, **STA6228 Reliability and Life Data II**), (**STA5330 Time Series I**, **STA6330 Time Series II**)

- **STA5003 Applied Linear Models II** Applied Linear Models II (4 credits)
- **STA5224 Discrete Data Analysis** Discrete Data Analysis (4 credits)
- **STA5006 Statistical Computing** Statistical Computing (4 credits)
- **STA5225 Stochastic Processes I** Stochastic Processes I (4 credits)
- **STA5221 Multivariate Stat Methods I** Multivariate Statistical Methods I (4 credits)
- **STA5226 Nonparametric Methods** Nonparametric Methods (4 credits)
- **STA5228 Reliability and Life Data I** Reliability and Life Data Analysis I (4 credits)
- **STA5229 Stat Methods in Sample Surveys** Statistical Methods in Sample Surveys (4 credits)
- **STA5330 Time Series I** Time Series I (4 credits)
- **STA5331 Bayesian Data Analysis** Bayesian Data Analysis (4 credits)
- **STA6003 Adv Design of Experiments** Advanced Design of Experiments (4 credits)
- **STA6110 Probability Theory** Probability Theory (4 credits)
- **STA6115 Stochastic Processes II** Stochastic Processes II (4 credits)
- **STA6221 Multivariate Stat Methods II** Multivariate Statistical Methods II (4 credits)
- **STA6228 Reliability and Life Data II** Reliability and Life Data Analysis II (4 credits)
- **STA6330 Time Series II** Time Series II (4 credits)

b. Distribution Requirements (24 credits)

Required course :

- **MTH5551 Real Analysis** Real Analysis (4 credits)
- and one other course selected from the applied continuous mathematics specialization list (4 credits).

Required course:

- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- and one other course selected from the applied discrete mathematics specialization list **(4 credits)**.
- In addition, there are two free elective courses for a total of fifteen courses to satisfy the 60-credit course requirement, exclusive of dissertation research credit.

c. Exit *

- **APM9999 Doctoral Dissertation Research Doctoral Dissertation Research (1 to 12 credits)**
- * Up to 3 credits of **APM6945 Problem Solving Seminar** or **STA6945 Problem Solving Seminar** may be included in the 20 credits.

2. Applied Discrete Mathematics Specialization (60 credits)

a. Specialization Requirements (36 credits)

Required courses:

- **APM5668 Math Model in Ind.: Discrete Mathematical Modeling in Industry: Discrete Models (4 credits)**
- **APM5669 Graph Theory & Applications Graph Theory and Applications (4 credits)**
- **APM6664 Combinatorial Optimization Combinatorial Optimization (4 credits)**
- **MTH5771 Algebra I Algebra I (4 credits)**
- **MTH5772 Algebra II Algebra II (4 credits)**

Choose four courses from the following:

- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **APM5664 App. Math: Discrete Methods II Applied Mathematics: Discrete Methods II (4 credits)**
- **APM5610 Adv Data Structures/Algorithms Algorithms and Complexity (4 credits)**
- **APM5777 Computer Algebra Computer Algebra (4 credits)**
- **APM5881 Theory of Computation The Theory of Computation (4 credits)**
- **APM6665 Approx Rndm Discrete Algorithm Approximation and Randomized Discrete Algorithms (4 credits)**
- **APM6773 Coding Theory Coding Theory (4 credits)**
- **MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)**
- **MOR5555 Nonlinear Optimization Nonlinear Optimization (4 credits)**

- **MTH6770 Algebraic Number Theory Algebraic Number Theory (4 credits)**
- **MTH6771 Commutative Algebra Commutative Algebra (4 credits)**
- **MTH6772 Algebraic Geometry Algebraic Geometry (4 credits)**

b. Distribution Requirements (24 credits)

Required course:

- **STA6113 Mathematical Statistics I Mathematical Statistics I (4 credits)**
- and one other course selected from the Applied Statistics specialization list **(4 credits)**

Required course:

- **MTH5551 Real Analysis Real Analysis (4 credits)**
- and one other course selected from the applied continuous specialization list **(4 credits)**
- In addition, there are two free elective courses for a total of fifteen courses to satisfy the 60-credit course requirement, exclusive of dissertation research credit.

c. Exit *

APM9999 Doctoral Dissertation Research Doctoral Dissertation Research (20 credits)

* Up to 3 credits of APM 6945 or STA 6945 may be included in the 20 credits.

3. Applied Continuous Mathematics Specialization (60 credits)

a. Specialization Requirements (36 credits)

Required courses:

- **APM5333 Numerical Methods Numerical Methods (4 credits)**
- **APM5557 Adv Partial Diff Equations Advanced Partial Differential Equations (4 credits)**
- **APM6558 Math Model in Ind.: Continuous Mathematical Modeling in Industry: Continuous Models (4 credits)**
- **MTH5551 Real Analysis Real Analysis (4 credits)**
- **MTH6551 Functional Analysis I Functional Analysis (4 credits)**

Choose four courses from the following:

- **APM5334 App Num Methods: Matrix Method Applied Numerical Methods: Matrix Methods (4 credits)**
- **APM5553 Adv Ordinary Diff Equations Advanced Ordinary Differential Equations (4 credits)**

- **APM5666 Computational Geometry Computational Geometry (4 credits)**
- **APM6334 Num Meth PartI Diff Equa Numerical Methods for Partial Differential Equations (4 credits)**
- **APM6005 Applied Continuous Math: Topic Applied Continuous Mathematics: Selected Topics (4 credits)**
- **MOR5558 Operations Research Models Mathematical Modeling in Industry: Operations Research Models (4 credits)**
- **MTH5555 Complex Analysis Complex Analysis (4 credits)**

b. Distribution Requirements (24 credits)

Required course:

- **STA6113 Mathematical Statistics I Mathematical Statistics I (4 credits)**
- and one other course selected from the applied statistics specialization list **(4 credits)**

Required course:

- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- and one other course selected from the applied discrete mathematics specialization list **(4 credits)**
- In addition, there are two free elective courses for a total of fifteen courses to satisfy the 60-credit course requirement, exclusive of dissertation research credit.

c. Exit *

APM9999 Doctoral Dissertation Research Doctoral Dissertation Research (20 credits)

* Up to 3 credits of **APM6945 Problem Solving Seminar** or **STA6945 Problem Solving Seminar** may be included in the 20 credits.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.00.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In the Ph.D. program, courses awarded a grade of less than B will not count toward the degree; however, all grades earned are used in computing a student's GPA, and an overall 3.00 GPA or better must be maintained.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

General Examination and Dissertation

The General Examination is intended to assess the student's overall knowledge of mathematical sciences at the graduate level and the student's ability to pursue the doctoral degree in his or her selected specialization. The General Examination is administered by the Committee on Graduate Programs and consists of two parts:

Part I consists of three written section exams, each one covers material in one of the areas of continuous mathematics, discrete mathematics, and statistics. It is offered once near the beginning of the fall term (usually in September) and once near the beginning of the winter term (usually in January). The student must pass two out of the three exams.

Part II of the General Examination may only be attempted after passage of Part I. Part II consists of a single written exam. The material covered in this single exam involves only the area of the student's perspective specialization and will be decided upon by the Committee on Graduate Programs and the student's dissertation adviser in consultation with the student.

A student must have completed at least 12 credits of graduate coursework at Oakland with a GPA of 3.00 or better before taking the General Examination. No student with a GPA below 3.00 will be permitted to take the General Examination. It is expected that the student has passed Part I of the General Examination to be eligible to register for Doctoral Dissertation Research.

Dissertation Committee

Each student who has passed the General Examination will have a dissertation committee prior to registration for doctoral research credit.

The dissertation committee will be appointed by the Committee on Graduate Programs, with the approval of Oakland University Graduate School. The dissertation committee will consist of at least four faculty members, at least three of whom will be in the specialization area of the student. Prior to the formation of the committee, the student will suggest one faculty member from the student's area of specialization with the concurrence of the faculty member to be the adviser and chair or co-chair of the dissertation committee. At least one member of the committee will be selected by the Committee on Graduate Programs from faculty in the department but outside the student's area of specialization. The chair of the dissertation committee will be the intended supervisor of the doctoral dissertation for the student and is normally the faculty member nominated by the student. The membership of the committee may be changed by action of the Committee on Graduate Programs, with the approval of Oakland University Graduate School.

Final Oral Examination and Dissertation Defense

The chair of the dissertation committee is responsible for keeping the committee members informed about the progress of the dissertation research and making preliminary drafts of the dissertation available to all members of the dissertation committee in a manner that permits timely suggestions for improvements. When the chair of the committee determines that the dissertation is ready for oral presentation, the chair will request that a colloquium talk be scheduled where the student presents the dissertation. Immediately following the colloquium, the committee will continue an oral examination of the candidate. Others are welcome to attend this portion of the final examination, with the consent of the candidate and the committee. When this oral examination is concluded, the committee will meet privately and decide whether the candidate, with possible modifications in the dissertation, will be recommended by the committee to receive the Ph.D. Every member of the committee must be present, possibly electronically, at the oral examination and be willing to sign the dissertation (after suitable and specified modifications, if any) for the student to pass this final oral examination.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time to Degree

The maximum time limit for completing a Ph.D. degree program is no more than ten years from the term of the first course enrollment in the doctoral program.

The time limit for completing a Ph.D. degree requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, after passing Part II of the General examination, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Applied and Computational Physics, Doctor of Philosophy

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Applied and Computational Physics, Doctor of Philosophy	Major

Program Type

Doctorate

College/School

College of Arts and Sciences (AS)

Department(s)

Physics

Credit Total

80

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

Department of Physics

190 Mathematics and Science Center ([map](#))

(248) 370-3416 • Fax (248) 370-3408

www.oakland.edu/physics

Graduate Coordinator:

David Garfinkle

186J MSC

(248) 370-3411

garfinkl@oakland.edu

Program Description

The College of Arts and Sciences offers a physical sciences doctoral program in Applied and Computational Physics, at the Department of Physics. With a concentration in materials experimental research and computer modeling, this program will prepare graduates for industry and academic careers in areas related to various experimental and theoretical aspects of one of the largest fields in physics: Materials science. More generally, the curriculum prepares the students to engage in research in condensed matter physics, with materials research currently being the most technologically important area. This program emphasizes both practical, engineering applications (applied physics track) and theoretical and fundamental physical concepts (computational physics track). Ph.D. candidates may elect to do their dissertation with one of a number of Oakland University faculty currently involved in applied and computational physics research. In addition to available Oakland University graduate

assistantships, many of the faculty in the Department may provide individual support for qualified students. Interested students should consult the program coordinator for details.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review. Those students may want to request special graduate status.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International Students](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - Students will be considered for admission if they hold a baccalaureate degree in physics, computer science, or one of the mathematical sciences.
 - Recommendation for Graduate Admission form
Three forms must be submitted directly by individuals who can evaluate the applicant's potential for graduate-level scientific research.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Proficiency of Entering Students

Students with an earned MS degree can obtain up to 32 credits reduction for their graduate studies with approval from the program committee. On entering the program, each MS student will be given a preliminary examination consisting of three parts: thermodynamics, quantum mechanics, and electricity and magnetism (the course content of PHY 4210, 4720, and 4820, respectively). Failure in any of the three parts of the exam will obligate the student to take the corresponding course.

Degree Requirements

The Doctor of Philosophy in Applied and Computational Physics is awarded upon satisfactory completion of a minimum of 80 credits in an approved program of study, successful completion of a qualifying examination, and successful completion of a dissertation.

A minimum of 80 credits beyond the bachelor's degree is required for the Ph.D. in Applied and Computational Physics program, including at least 30 credits of dissertation research.

The basic requirements for the Ph.D. in Applied and Computational Physics are completion of a program of formal course work and independent research approved by the candidate's dissertation committee and the Joint Committee on Applied and Computational Physics.

Course Requirements (80 credits)

a. Core Courses (32 credits)

Required courses:

- **PHY5220 Stats Thermodynamics** Statistical Thermodynamics (4 credits)
- **PHY5520 Theoretical Physics** Theoretical Physics (4 credits)
- **PHY5620 Mechanics II** Mechanics II (4 credits)
- **PHY5740 Intro To Solid State Phy** Introduction to Solid-State Physics (4 credits)
- **PHY5830 Classical Electrodynamics** Classical Electrodynamics (4 credits)
- **PHY6730 Quantum Mechanics** Quantum Mechanics (4 credits)
- **SCI5110 Ethics and Practice of Science** Ethics and Practice of Science (2 credits)
- **PHY6940 Seminar** Seminar (1 credit) Students will take two semesters (1 credit per semester)

Choose one course from the following:

- **PHY5420 Advanced Electronics** Advanced Electronics (4 credits)
- **PHY5530 Numerical Methods in Theo Phy** Numerical Methods in Theoretical Physics (4 credits) (for the computational physics track)

b. Electives (18 credits)

Students will take 18 credits of elective courses: 8 credits from the following courses and 10 credits of free electives.

Choose an appropriate track from the following:

1. Applied Physics Track

- **PHY5450 Physics of NMR and MRI** Physics of NMR and MRI (4 credits)

- **CHM5410 Advanced Physical Chemistry** Advanced Physical Chemistry (3 credits)
- **CHM5420 Topics in Physical Chemistry** Topics in Physical Chemistry (3 credits)
- **ECE5140 Instrumentation & Measurements** Instrumentation and Measurements (4 credits)
- **ECE5300 Electromagnetic Engineering** Electromagnetic Engineering (4 credits)

2. Computational Physics Track

- **PHY5350 Modeling Complex Systems** Modeling Complex Systems (4 credits)
- **PHY5300 Bioelectric Phenomena** Bioelectric Phenomena (4 credits)
- **PHY5040 Advanced Astrophysics I** Advanced Astrophysics I (4 credits)
- **PHY5650 Phys Continuous Media** Physics of Continuous Media (4 credits)
- **PHY6740 Advanced Quantum Mechanics** Advanced Quantum Mechanics (4 credits)
- **APM5333 Numerical Methods** Numerical Methods (4 credits)
- **APM5334 App Num Methods: Matrix Method** Applied Numerical Methods: Matrix Methods (4 credits)
- **APM5334 App Num Methods: Matrix Method** Numerical Methods for Partial Differential Equations (4 credits)
- **APM6558 Math Model in Ind.: Continuous** Mathematical Modeling in Industry: Continuous Models (4 credits)
- **STA5225 Stochastic Processes I** Stochastic Processes I (4 credits)
- **ME5510 Intermediate Fluid Mechanics** Intermediate Fluid Mechanics (4 credits)
- **ME7510 Gas Dynamics** Gas Dynamics (4 credits)

c. Dissertation (30 credits)

- **PHY8999 Doctoral Research** Doctoral Research (1 to 12 credits) (per semester)
- Approval of research oriented dissertation submitted for internal and external review.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Qualifying Examination

Typically, within two years after admission into the program, the student must pass a comprehensive qualifying examination. The comprehensive examination will consist of a written examination followed by an oral examination. The written examination will consist

of two parts: Mathematics and Theoretical Physics. The oral exam will include the student's presentation of his/her research. The examination is intended to determine the extent of the student's knowledge and readiness for the doctoral degree and will be designed and evaluated by the dissertation committee. If the student does not pass the examination, the committee may allow the student to retake the examination within one year. Failure to pass the examination within two attempts shall constitute failure in the Ph.D. program.

Dissertation Committee

A dissertation committee consisting of at least three members (one of whom will serve as dissertation adviser) will be formed. The majority of the committee will consist of faculty members of the Department of Physics. The student's dissertation adviser will be chairperson of the committee. The committee is charged with the guidance of the student in course selection, review of dissertation proposals before initiation of a project, and approval of the completed dissertation.

Research and dissertation

An integral and major component of the program is the successful completion of original research either utilizing state-of-the-art experimental methods or taking theoretical and/or computational approach to study a problem of current interest. Each student shall, in consultation with his or her adviser, prepare:

- A dissertation proposal outlining the problem to be studied and the relation of this problem to practical applications
- A survey of the appropriate literature
- A description of the appropriate techniques
- And an outline of the experiments to be performed.

The student shall, at the request of the dissertation committee, orally defend the proposal and elaborate on the methods for data collection and analysis.

The project shall be deemed ready for preparation of the dissertation at such time as the student's dissertation committee agrees that the student has completed the project and that the student is an expert in the use of the specific theoretical and/or experimental methods required by the project. The student shall then prepare a doctoral dissertation for submission to the committee and shall defend the dissertation in a public oral examination conducted by the dissertation committee.

Residence

All students are required to fulfill a residency requirement for this program. Although students may complete some of the program on a part-time basis, continuous full-time enrollment is highly preferred. The minimal residency requirement shall be full-time residency (8 credits per semester) for at least three consecutive full semesters with at least two of these devoted primarily to the student's research project.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate

student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Graduate Study and Lifelong Learning.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student’s responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time to Degree

The maximum time limit for completing a Ph.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Biomedical Physics

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PHD	Biomedical Physics	Major

Program Type

Doctorate

College/School

College of Arts and Sciences

Department(s)

Physics

Credit Total	Delivery Method	Required Summer Semesters
80	In Person	0

Requirements

Program Requirements

Department of Physics

190 Mathematics and Science Center ([map](#))
 (248) 370-3416 • Fax (248) 370-3408
www.oakland.edu/physics

Doctor of Philosophy in Biomedical Sciences**Program Committee members:**

Yang Xia, Professor of Physics
 Chhabi Govind, Professor of Biological Sciences
 Roman Dembinski, Professor of Chemistry

Graduate Coordinator:

Yang Xia
 276 Hannah Hall
 (248) 370-3420
xia@oakland.edu

Program description

The College of Arts and Sciences offers a Doctor of Philosophy in Biomedical Physics degree.

Medical physicists are providing primary contributions to advances in biomedical diagnostic and therapeutic medicine. Laser surgery, ultrasonics, nuclear medicine, radiotherapy, computer tomography, and nuclear magnetic resonance imaging are examples of medical modalities developed and implemented by medical physicists through experiment, numerical methods, and the use of artificial intelligence. The medical physics specialization of the biomedical sciences doctoral program is designed for students who plan careers in research in industrial, hospital, and academic settings. The curriculum is designed to prepare the student to engage in research in areas of physics applied to medicine. Ph.D. candidates may elect to do their dissertation research either with one of a number of Oakland University faculty currently involved in biomedical research or with one of the scientists in area hospitals that collaborate closely with the university. Among these are Henry Ford Hospital, Detroit; and William Beaumont Hospital, Royal Oak. In addition to available Oakland University graduate assistantships, hospitals participating in this program may provide support for qualified students. Interested students should consult the program coordinator for details.

Admission terms and application deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements [and](#) additional department requirements by the published application deadlines:

1. **[Graduate Application Requirements](#)**2. **Additional department application requirements**

- [Recommendation for Graduate Admission form](#)
Three forms must be submitted directly by individuals who can evaluate the applicant's potential for graduate-level scientific research.
- Official results of the Graduate Record Examination (GRE). The physics subject exam is also recommended. The Biomedical Sciences: Medical Physics PhD Program will waive the general GRE for students with an MS degree (physics, medical physics, biology, chemistry) from an accredited university in the United States or Canada obtained within the last five years.
- To request a waiver, applicants must submit a **[Request to Waive GRE](#)**
form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee.
- Students will be considered for admission if they hold a baccalaureate degree in physics, chemistry, mathematics, biology, engineering, or other disciplines related to medical physics.
- Each student entering the program must demonstrate proficiency in specific areas of coursework. Upon entering the program the student must consult with the specialization adviser who will plan a program of coursework to eliminate any deficiencies in the student's preparation. Proficiency typically would consist of satisfactory knowledge of coursework equivalent to the following Oakland University courses: Modern physics (PHY 3710), Physical chemistry (CHM 3430), or Thermodynamics and quantum mechanics (PHY 4210 and 4720), and at least three of the following: Computer programming, differential equations (APM 2555), Electronics (PHY 3410, 3470), Electricity and magnetism (PHY 3810), Physiology (BIO 2600 or BIO 3620), and Statistics (STA 2226).

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of

applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Biomedical Sciences Doctoral Program Committee

The program committee, appointed by the Dean of the College of Arts and Sciences, consists of one faculty member from each biomedical sciences specialization areas (Biological Communication, Health and Environmental Chemistry, and Medical Physics) as well as the coordinator of graduate programs in the College of Arts and Sciences, who serves as chair of the program committee. The program committee advises the Dean of the College of Arts and Sciences on admission of students, selection of student committees, proposals for changes in degree requirements and approval of doctoral dissertations.

Biomedical Sciences doctoral program specialization committees

Three specialization committees, appointed by the Dean of the College of Arts and Sciences on recommendations from the chairs of the chemistry, physics, and biology departments, are responsible for preliminary screening of applications for admission, preliminary approval of dissertation committees, approval of course selections by each student, certification of fulfillment of proficiency requirements by each student, administration and grading of preliminary examinations for each student, and proposal of any modifications in degree requirements for students in that specialization. Each specialization committee appoints specific faculty members to advise each incoming student selecting that specialization until the student's dissertation committee is established.

Proficiency of entering students

Each student entering the program must demonstrate proficiency in specific areas of coursework. Upon entering the program the student must consult with the appropriate specialization adviser who will plan a program of coursework to eliminate any deficiencies in the student's preparation.

Degree requirements

The Doctor of Philosophy in Biomedical Physics degree is awarded upon satisfactory completion of 80 credits in an approved program of study.

The basic requirements for the Doctor of Philosophy in Biomedical Sciences degree are completion of a unified program of formal coursework and independent research approved by the candidate's dissertation committee and the medical physics specialization committee.

Course requirements (80 credits)

a. Foundation requirements (60 credits)

Areas of graduate-level proficiency required for the medical physics specialization are theoretical physics, mathematical methods in scientific research, and biophysical sciences, laboratories and the ethics and practice of science. The credits required to establish proficiency in the following areas vary by student background.

- **PHY 5720 - Quantum Mechanics I (4 credits)**
- **PHY 5220 - Statistical Thermodynamics (4 credits)**
- **PHY 5300 - Bioelectric Phenomena (4 credits)**
- **PHY 5450 - Physics of NMR and MRI (4 credits)**
- **PHY 5520 - Theoretical Physics (4 credits)**
- **PHY 5620 - Mechanics II (4 credits)**
- **PH5920- Directed Readings in Physics (2-4 credits)**
- **Mathematical methods (Minimum 4 credits)**
- **APM 5333 - Numerical Methods (4 credits)**
- **APM 5334 - Applied Numerical Methods: Matrix Methods (4 credits)**
- **PHY 5350 - Modeling Complex Systems (4 credits)**
- **PHY 5530 - Numerical Methods in Theoretical Physics (4 credits)**
- **STA 5001 - Statistical Methods in Research and Production (4 credits)**
- **STA 5113 - Introduction to Mathematical Statistics I (4 credits)**
- **STA 5225 - Stochastic Processes I (4 credits)**
- **Biophysical sciences (Minimum 4 credits)**
- **BIO 5620 - Advanced Human Physiology (4 credits)**
- **BIO 5920 - Directed Readings in Biology (2 to 4 credits)**
- **CHM 5920 - Directed Readings in Chemistry (2 - 4 credits)**
- **PHY 5250 - Radiation Biophysics (4 credits)**

- **PHY 5300 - Bioelectric Phenomena (4 credits)**
- **PHY 5450 - Physics of NMR and MRI (4 credits)**
- **Ethics and Practice of Science (2 credits)**
- **SCI 5110 - Ethics and Practice of Science (2 credits)**
- Note: these are course suggestions. The actual plan of study is made in consultation with the department. Students must consult with a faculty advisor in the Department of Physics before registering for courses.

b. Dissertation requirements (Minimum 20 credits)

- **PHY 8999 - Doctoral Research (1 to 12 credits)**

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good academic standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0 (B) or better.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Preliminary examination

Within two years after admission into the program the student must pass a comprehensive written and oral examination. The comprehensive examination consists of three written exams in theoretical physics, mathematical methods, and biophysical sciences, and an oral exam. The examination is intended to determine the extent of the student's knowledge and fitness for the doctoral degree and will be designed and evaluated by the medical physics specialization committee. If the student does not pass the examination, the specialization committee may allow the student to retake the examination within one year. Failure to pass the examination within two attempts shall constitute failure in the Ph.D. program.

Dissertation committee

A dissertation committee consisting of at least three members, one of whom serves as dissertation adviser, will be chosen by the specialization committee and the student in question. The student's dissertation adviser will be chairperson of the committee. The committee is charged with the guidance of the student in course selection, review of dissertation proposals before initiation of a project, and approval of the completed dissertation.

Research and dissertation

An integral and major component of the program is the successful completion of original research using state-of-the-art experimental or theoretical methods to study a problem of current interest. Each student shall, in consultation with their adviser, prepare a dissertation proposal outlining the problem to be studied, a survey of the appropriate literature, a description of the appropriate techniques, and an outline of the experiments to be performed. The student shall, at the request of the dissertation committee, orally defend the proposal or elaborate on the methods for data collection and analysis. Approval of the proposal by the committee is required prior to commencing research. The project shall be deemed ready for preparation of dissertation at such time as the student's committee agrees that the student has completed the project and that the student is an expert in the use of specific methods required by the project. At that time, the student shall prepare a doctoral dissertation for submission to the committee and shall defend the dissertation in a public oral examination conducted by the committee and attended by the medical physics specialization committee. Acceptance of the dissertation by Oakland University Graduate School requires favorable

recommendations by the dissertation and specialization committees. All dissertations must conform to university standards (see [Thesis and Dissertation](#)).

Residence

All students are required to fulfill a residency requirement for this program. Although students may complete some of the program on a part-time basis, continuous full-time enrollment is highly preferred. The minimal residency requirement shall be full-time residency (8 credits per semester) for at least three consecutive full semesters with at least two of these devoted primarily to the student's research project.

Continuous enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time to degree

The maximum time limit for completing a Ph.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Psychology

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Psychology	Major

Program Type

Doctorate

College/School

College of Arts and Sciences (AS)

Department(s)

Psychology

Credit Total

80

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Psychology

111 Pryale Hall ([map](#))

(248) 370-2300 • Fax (248) 370-4612

www.oakland.edu/psychology

Director of Graduate Training:

Virgil Zeigler-Hill

212A Pryale Hall

(248) 370-2676

zeiglerh@oakland.edu

Program Description

The Doctor of Philosophy in Psychology program will provide graduate students with the knowledge, skills, and experiences necessary to become successful producers of research, investigating the structures, processes, and products of the mind. Psychology is a broad discipline that interfaces with the biological and social sciences. This graduate program is organized around three concentrations that together encapsulate the breadth of psychological science: (1) Social-Personality Psychology; (2) Community and Behavioral Health; and (3) Evolutionary, Comparative, and Cognitive Psychology. These concentrations represent broad areas that focus on phenomena from different orientations in moderately overlapping but distinguishable content areas. Graduate students will have broad exposure to multiple concentrations that will be extended by an intensive inquiry specialized in one concentration. Students will apply for admission in one of these concentrations.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the fall semester only. Review of applications will begin on the following dates:

- December 1 for fall semester
- **International students**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Recommendation for Graduate Admission form: Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - An essay (i.e., statement of purpose) describing the applicant's interest in the program, research interests, and career goals.
 - Scores from the Graduate Record Examination (GRE).

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, the department assesses the potential of applicants for success in the program by examining their undergraduate records, statement of purpose, letters of recommendation, prerequisite courses, and GRE scores.

Degree Requirements

The Doctor of Philosophy in Psychology degree is awarded upon satisfactory completion of 80 credits in an approved program of study and successful completion and oral defense of a doctoral dissertation as determined by the student's advisory committee.

The normal full-time course load for graduate students is 8 to 12 credits per semester. Students who have previously earned a master's degree from Oakland University or another regionally-accredited institution may reduce the 80 credits of coursework required for the doctoral degree by up to 32 credits. To be considered for a reduction in required doctoral credits, students must submit a Petition of Credit from Earned Master's Degree. The advisory committee will evaluate the student's prior master's degree work and may reduce the required Ph.D. credits based on the master's coursework. The decision of the advisory committee is final, but the approved petition and approved plan of study must be on file in the Graduate School by the end of the first year of doctoral study. All candidates must complete at least 24 credits of additional coursework exclusively at Oakland University.

Course Requirements (80 credits)

The total credits required to obtain a Ph.D. in Psychology degree is 80. Approved courses taken as a part of a master's degree may be used towards satisfying this requirement. Students may also take graduate courses from other departments with the approval of their advisory committee.

a. Required Courses (24 credits)

Required courses:

- **PSY5001 Adv Meth Psy/Behav Res I** Advanced Methods for Psychological & Behavioral Research I (4 credits)
- **PSY5002 Adv Meth Psy/Behav Res II** Advanced Methods for Psychological & Behavioral Research II (4 credits)
- **PSY5101 Adv Stats for Psy/Behav Res I** Advanced Statistics for Psychological and Behavioral Research I (4 credits)
- **PSY5102 Adv Stats for Psy/Behav Res II** Advanced Statistics for Psychological & Behavioral Research II (4 credits)
- **PSY6001 Instruction/Psychology Science** Instruction in Psychological Science (4 credits)
- **PSY6998 Master of Science Thesis** Master of Science Thesis (1 TO 4 credits)

b. Concentration Requirement (24 credits):

Concentration 1: Evolutionary, Comparative, and Cognitive Psychology

Choose 6 courses from the following:

- **PSY5204 Emotion and Motivation** Emotion and Motivation (4 credits)
- **PSY5206 Proseminar Soc/Behav Process** Proseminar in Social and Behavioral Processes (4 credits)
- **PSY5207 Persnalty, Ind Diff & Intellig** Personality, Individual Differences, and Intelligence (4 credits)
- **PSY5208 Intergroup Relations** Intergroup Relations (4 credits)
- **PSY5301 Animal Cognition** Animal Cognition (4 credits)
- **PSY5302 Evol Psych & Animal Behavior** Evolutionary Psychology and Animal Behavior (4 credits)
- **PSY5303 Hormones & Human Behavior** Hormones and Human Behavior (4 credits)
- **PSY5304 Psychology of Human Sexuality** Psychology of Human Sexuality (4 credits)
- **PSY5305 Curr Dir-Evolutionary Psych** Current Directions in Evolutionary Psychology (4 credits)

- PSY5502 Seminar-Cognitive Development Seminar in Cognitive Development (4 credits)
- PSY5601 Cog Psy: Theory & Application Cognitive Psychology: Theory and Application (4 credits)
- PSY5602 Conditioning, Learning, Memory Conditioning, Learning and Memory (4 credits)
- PSY5605 Neuroanat/Brain Development Neuroanatomy, Brain Development and Neural (4 credits)
- PSY5606 Proseminar Biol/Basic Process Proseminar in Biological and Basis Processes (4 credits)
- PSY5607 Adv Tops/Bio & Basic Processes Advanced Topics in Biological and Basic Processes (4 credits)
- PSY5990 Adv Top in Meth Psy/Behav Dsn Advanced Topics in Methods of Psychological and Behavioral Research Design (4 credits)
- PSY5991 Adv Topics in Psych Statistics Advanced Topics in Statistics for Psychological and Behavioral Research (4 credits)
- PSY5992 Adv Top in Soc/Behav Processes Advanced Topics in Social and Behavioral Processes (4 credits)

Concentration 2: Social-Personality Psychology

Choose 6 courses from the following:

- PSY5201 Social Cog & Interper Process Social Cognition and Interpersonal Processes (4 credits)
- PSY5202 Self & Interper Relationships Self and Interpersonal Relationships (4 credits)
- PSY5204 Emotion and Motivation Emotion and Motivation (4 credits)
- PSY5206 Proseminar Soc/Behav Process Proseminar in Social and Behavioral Processes (4 credits)
- PSY5207 Persnalty, Ind Diff & Intellig Personality, Individual Differences, and Intelligence (4 credits)
- PSY5208 Intergroup Relations Intergroup Relations (4 credits)
- PSY5304 Psychology of Human Sexuality Psychology of Human Sexuality (4 credits)
- PSY5601 Cog Psy: Theory & Application Cognitive Psychology: Theory and Application (4 credits)
- PSY5605 Neuroanat/Brain Development Neuroanatomy, Brain Development and Neural (4 credits)
- PSY5606 Proseminar Biol/Basic Process Proseminar in Biological and Basis Processes (4 credits)
- PSY5607 Adv Tops/Bio & Basic Processes Advanced Topics in Biological and Basic Processes (4 credits)

- PSY5990 Adv Top in Meth Psy/Behav Dsn Advanced Topics in Methods of Psychological and Behavioral Research Design (4 credits)
- PSY5991 Adv Topics in Psych Statistics Advanced Topics in Statistics for Psychological and Behavioral Research (4 credits)
- PSY5992 Adv Top in Soc/Behav Processes Advanced Topics in Social and Behavioral Processes (4 credits)

Concentration 3: Community and Behavioral Health

Choose 6 courses from the following:

- PSY5204 Emotion and Motivation Emotion and Motivation (4 credits)
- PSY5206 Proseminar Soc/Behav Process Proseminar in Social and Behavioral Processes (4 credits)
- PSY5303 Hormones & Human Behavior Hormones and Human Behavior (4 credits)
- PSY5304 Psychology of Human Sexuality Psychology of Human Sexuality (4 credits)
- PSY5401 Bio Factors of Hlth & Wellness Biopsychosocial Factors of Health and Wellness (4 credits)
- PSY5402 Health Behavior Change Health Behavior Change (4 credits)
- PSY5408 Analysis of Psychopathology Analysis of Psychopathology (4 credits)
- PSY5601 Cog Psy: Theory & Application Cognitive Psychology: Theory and Application (4 credits)
- PSY5602 Conditioning, Learning, Memory Conditioning, Learning and Memory (4 credits)
- PSY5605 Neuroanat/Brain Development Neuroanatomy, Brain Development and Neural (4 credits)
- PSY5606 Proseminar Biol/Basic Process Proseminar in Biological and Basis Processes (4 credits)
- PSY5607 Adv Tops/Bio & Basic Processes Advanced Topics in Biological and Basic Processes (4 credits)
- PSY5990 Adv Top in Meth Psy/Behav Dsn Advanced Topics in Methods of Psychological and Behavioral Research Design (4 credits)
- PSY5991 Adv Topics in Psych Statistics Advanced Topics in Statistics for Psychological and Behavioral Research (4 credits)
- PSY5992 Adv Top in Soc/Behav Processes Advanced Topics in Social and Behavioral Processes (4 credits)
- PSY5993 Spec Topics-Behavioral Health Special Topics in Behavioral Health (4 credits)

c. Elective courses (16 credits)

Choose 4 courses from the following:

- **PSY5103 Introduction to SEM** Introduction to Structural Equation Modeling (SEM) (4 credits)
- **PSY5104 Introduction to MLM** Introduction to Multilevel Modeling (MLM) (4 credits)
- **PSY5201 Social Cog & Interper Process** Social Cognition and Interpersonal Processes (4 credits)
- **PSY5202 Self & Interper Relationships** Self and Interpersonal Relationships (4 credits)
- **PSY5204 Emotion and Motivation** Emotion and Motivation (4 credits)
- **PSY5206 Proseminar Soc/Behav Process** Proseminar in Social and Behavioral Processes (4 credits)
- **PSY5207 Persnalty, Ind Diff & Intellig** Personality, Individual Differences, and Intelligence (4 credits)
- **PSY5208 Intergroup Relations** Intergroup Relations (4 credits)
- **PSY5301 Animal Cognition** Animal Cognition (4 credits)
- **PSY5302 Evol Psych & Animal Behavior** Evolutionary Psychology and Animal Behavior (4 credits)
- **PSY5303 Hormones & Human Behavior** Hormones and Human Behavior (4 credits)
- **PSY5304 Psychology of Human Sexuality** Psychology of Human Sexuality (4 credits)
- **PSY5305 Curr Dir-Evolutionary Psych** Current Directions in Evolutionary Psychology (4 credits)
- **PSY5401 Bio Factors of Hlth & Wellness** Biopsychosocial Factors of Health and Wellness (4 credits)
- **PSY5402 Health Behavior Change** Health Behavior Change (4 credits)
- **PSY5408 Analysis of Psychopathology** Analysis of Psychopathology (4 credits)
- **PSY5502 Seminar-Cognitive Development** Seminar in Cognitive Development (4 credits)
- **PSY5601 Cog Psy: Theory & Application** Cognitive Psychology: Theory and Application (4 credits)
- **PSY5602 Conditioning, Learning, Memory** Conditioning, Learning and Memory (4 credits)
- **PSY5605 Neuroanat/Brain Development** Neuroanatomy, Brain Development and Neural (4 credits)
- **PSY5606 Proseminar Biol/Basic Process** Proseminar in Biological and Basis Processes (4 credits)
- **PSY5607 Adv Tops/Bio & Basic Processes** Advanced Topics in Biological and Basic Processes (4 credits)
- **PSY5990 Adv Top in Meth Psy/Behav Dsn** Advanced Topics in Methods of Psychological and Behavioral Research Design (4 credits)

- **PSY5991 Adv Topics in Psych Statistics** Advanced Topics in Statistics for Psychological and Behavioral Research (4 credits)
- **PSY5992 Adv Top in Soc/Behav Processes** Advanced Topics in Social and Behavioral Processes (4 credits)
- **PSY5993 Spec Topics-Behavioral Health** Special Topics in Behavioral Health (4 credits)
- **PSY6970 Independent Study** Independent Study (1 to 4 credits)
- **PSY8999 Doctoral Dissertation Research** Doctoral Dissertation Research (1 TO 16 credits) (up to 8 credits above the 16 credit minimum requirement)

d. Dissertation (16 credits)

- **PSY8999 Doctoral Dissertation Research** Doctoral Dissertation Research (1 TO 16 credits)

Good academic standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Related Program information

Academic Advising and Advisory Committee

Upon admission, students will work with the Director of Graduate Training to plan their coursework for the first semester. After their fall registration, the role of academic adviser will be assumed by the major professor, who will serve as the mentor and academic adviser for the student as well as the chair of the Master of Science Thesis and/or Doctoral Dissertation Committees. Within the first year of study, the student is required to select an advisory committee consisting of their major professor and two additional faculty members. The advisory committee will (1) assist the student in developing and implementing a plan of study, (2) meet at least annually to evaluate the student's progress, (3) approve and grade the student's Master of Science thesis, (4) construct and grade the student's comprehensive examination, and (5) will usually serve as the student's doctoral dissertation committee.

Plan of Study

Upon admission, students must develop a plan of study in consultation with their major professor and the Director of Graduate Training. As soon as the student forms an advisory committee, the committee will review and update the plan of study. The plan of study must be submitted to Oakland University Graduate School.

Enrollment

At least 24 credits of graduate coursework, excluding the dissertation credits, must be completed at Oakland University. Further, all students are required to register for at least 1 credit every fall and winter semester in every academic year, after their admission to the program.

Master of Science Thesis

Typically, with the consent of their advisory committee, students will complete and defend a Master of Science (M.S.) thesis in the second or third year of the program. The successful completion of original research—demonstrating competence in design, conduct and analysis, the creation of a M.S. thesis—effectively and accurately characterizing the research, communicating the findings and placing the research in context, and the oral defense of the thesis are major features of the M.S. degree. The advisory committee will approve and grade the student's M.S. thesis and will be responsible for guiding this process and approving the products (i.e., the research, the thesis, and the defense of the thesis). Ordinarily, students will not sit for the comprehensive examination in the same term that they complete and defend their M.S. thesis. Acceptance of the thesis by Oakland University Graduate School requires favorable recommendations by the advisory committee. All theses must conform to university standards (see Thesis and Dissertation).

Comprehensive Examination

Typically, with the consent of their advisory committee, students will sit for the comprehensive examination in the second or third year of the program. If two of the three members of the advisory committee approve (P) the student's performance on the comprehensive examination, the student will be considered as having successfully completed the examination. If the student does not pass the examination, the advisory committee may allow the student to retake the examination within one year. Failure to pass the examination within two attempts shall constitute failure in the Ph.D. program. Ordinarily, students will not sit for the comprehensive examination in the same term that they complete and defend their Master of Science thesis.

Dissertation Committee

Upon successful completion of the comprehensive examination, each student will be expected to identify a dissertation committee. The dissertation committee will be chaired by the student's major professor and include two additional faculty members from the Department of Psychology. The student's advisory committee typically will comprise the dissertation committee. When it is appropriate to the student's plan of study and approved by the student's major professor, an outside scholar or expert may be substituted for one of the faculty members from the Department of Psychology. The dissertation committee will guide the student's dissertation research and creation of the dissertation. A majority of the members must approve the dissertation before it can be

defended by the candidate. In addition, the dissertation committee, acting as the defense committee, must approve the candidate's defense of the dissertation by a majority vote.

Dissertation and Defense

The successful completion of original research—demonstrating competence in design, conduct and analysis, the creation of a doctoral dissertation—effectively and accurately characterizing the research, communicating the findings and placing the research in context, and the oral defense of the dissertation are major features of the doctoral degree. The dissertation committee will be responsible for guiding this process and approving the products—the research, the dissertation, and the defense of the dissertation. Acceptance of the dissertation by Oakland University Graduate School requires favorable recommendations by the doctoral dissertation committee. All dissertations must conform to university standards (see **Thesis and Dissertation**).

Additional Requirements

Students will be encouraged to participate in research teams involving faculty researchers, M.S. students and undergraduates. Although the major focus will be on increasing the quality and variety of research experiences available to undergraduates, this activity is designed to provide graduate students with directed mentoring experience, particularly when combined with **PSY6001 Instruction/ Psychology Science Instruction in Psychological Science**.

Residence

All students are required to fulfill a residency requirement for this program. Although students may complete some of the program on a part-time basis, continuous full-time enrollment is highly preferred. The minimal residency requirement shall be full-time residency (8 credits per semester) for at least three consecutive full semesters with at least two of these devoted primarily to the student's research project.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of for at least 1 credit each semester in the academic year to maintain active graduate student status. This includes semesters in which the comprehensive exam is taken, defense of the M.S. thesis, and each subsequent term (fall and winter) until the degree requirements are met, and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

Students generally will be expected to complete the degree program within five years. The maximum time limit for completing a Ph.D. degree is no more than 10 years from the term of the first course enrollment in the doctoral program. The time limit for completing a Ph.D. Degree policy requires a student to achieve candidacy within

six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense). If a student is deemed inactive, he or she may be dropped out of the program despite the petition for extension.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

A Major Dependent Concentration is Required

Literacy, Culture, and Language

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Literacy, Culture, Major and Language	

Program Type

Doctorate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

60

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))

teach@oakland.edu

www.oakland.edu/teach

Doctoral Coordinator:

Gwen McMillon

450C Pawley Hall

(248) 370-4158

mcmillon@oakland.edu

Program Description

The Ph.D. in Literacy, Culture, and Language (LCL) is a flexible doctoral program for graduate students who want to know more about literacy and apply that knowledge to make an impact in the community, in higher education, and/or in schools. The LCL program, which is tailored towards current educators, provides the flexibility needed to earn a degree while still working full-time.

With a small ratio of doctoral students to department faculty, faculty members can give significant individual attention to the students. Specific examples of this attention may include encouraging and helping students participate in conference presentations, special assignments that involve developing or extending research skills, and working collaboratively with professors and fellow students on projects that may lead to publishable outcomes.

The Reading and Language Arts Department is committed to offering a program of study that prepares students to conduct and evaluate research, to master the art of teaching children and adults to read and write, and to understand and appreciate the wealth of knowledge that related disciplines can contribute to literacy instruction.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 15

Students are admitted in the fall semester only.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Requirements for Recommendations:
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Three letters of recommendation in addition to completing the recommender forms.
 - An earned Masters Degree in an education-related field from an accredited university is required.
 - Transcripts from undergraduate and graduate programs are required.
 - Writing ability as revealed through a personal essay or academic paper that speaks directly to why the student wants to pursue a degree in literacy in particular.
 - Professional background as indicated in a curriculum vitae.
 - Personal statement describing what motivates the applicant to pursue a doctoral degree.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Additionally, for the Doctor of Philosophy in Literacy, Culture, and Language degree program, experience teaching or working in a related field is also considered.

Program Prerequisites

For the Ph.D. in Literacy, Culture, and Language degree program, doctoral students who do not have prior experience teaching literacy will be asked to take foundational courses in this area, such as

RDG5520 Foundation Rdg Instruct, **RDG6962 Literacy Assessment**, and **RDG6963 Assessment-Based Literacy Inst** or additional classes to prepare them for the doctoral program.

Degree Requirements

The Ph.D. in Literacy, Culture, and Language degree program requires a minimum of 60 credits and consists of four parts: the foundation core component, the department core component, the cognate component, and the dissertation component.

The reading and language arts seminars, offered in the department core, cover topics such as theoretical models of reading, children's literature, and examining culture, race, equity, diversity, inclusion, and power in education.

The research seminars, also offered in the department core, cover topics such as critical inquiry, research in reading, qualitative and quantitative approaches to research, including video analysis tools and methods, survey tools and methods, and discourse analysis.

Course Requirements (60 credits)

a. Foundation Core (12 credits)

Required courses:

- **RDG9940 Doctoral Prof Seminar I** **Doctoral Professional Seminar I (2 credits)**
- **RDG9941 Doctoral Prof Seminar II** **Doctoral Professional Seminar II (2 credits)**
- **RDG9010 Research Methodology** **Research Methodology (4 credits)**
- **RDG9020 Analytical Methods** **Analytical Methods (4 credits)**

b. Department Core (20 credits)

Required courses:

- **RDG7204 Perspectives in Lit in LCL** **Perspectives in Literature in Literacy, Culture, and Language (4 credits)**
- **RDG7307 Theor Modes & Historic Perspec** **Theoretical Models and Historical Perspectives in Literacy, Culture, and Language (4 credits)**
- **RDG7949 Doctoral Seminar LCL** **Doctoral Seminar in Literacy, Culture, and Language (4 credits)**
- **RDG7220 Resrch Dsg/Methods I** **Research Design and Methods I (4 credits)**
- **RDG7225 Resrch/Dsg Methods II** **Research Design and Methods II (4 credits)**

c. Cognate (16 credits)

The cognate component consists of 16 semester hours of study selected by the student, with the advice of an adviser, to serve that student's research needs and interests. The cognate must be approved and signed by the student's adviser. The cognate may include study in related disciplines such as (but not limited to) linguistics, modern languages, psychology, English, instructional systems technology, school administration, children's literature, composition, or guidance and counseling.

d. Dissertation (12 credits)

The dissertation component consists of coursework guided by the student's dissertation chair and committee members and is designed to assist the student in the research and writing process involved in successful completion of the dissertation. A dissertation proposal (written paper) and oral proposal defense are required, as well as a dissertation and oral defense of the dissertation. Dissertations may investigate any faculty-approved theoretical or practical issue in reading and language arts and literacy related issues in instructional technology.

Graduate students pursuing a Ph.D. in Literacy, Culture, and Language may choose one of two dissertation formats: (1) traditional five-chapter dissertation or (2) five- chapter manuscript-style dissertation. It is the shared responsibility of the student and dissertation advisor to choose the format that best fits the student's program areas and needs, which must be made by the student's qualifying exam.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [**Office of Financial Aid**](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Requirements

Academic Advising

Upon acceptance into the program, students will be assigned an initial advisor based on their interests expressed in their application. Upon acceptance to the Ph.D. program in Literacy, Culture, and Language, students will meet with their initial assigned advisor to draft a program plan. Any time after the first semester, a student chooses a major advisor. The student may remain with the initial advisor after having a conversation with said advisor or ask another full-time RLA faculty member to serve as their major advisor.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to the department's Doctoral Coordinator and Oakland University Graduate School.

Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Professional Engagement Requirement

Doctoral students in the Department of Reading and Language Arts can complete their professional engagement requirement in one of five ways:

1. Co-teach a course with a faculty member,
2. Engage in a research project with a faculty member,
3. Involved in planning, preparation and co-presentation at a local, regional, or national conference with a faculty member,
4. Involved in planning, preparation and co-presentation of a literacy-related workshop with a faculty member, or
5. Participate on the Doctoral Student Advisory Board or similar ongoing committee work.

A letter from a Reading faculty member stating that any one of the following has been completed shall qualify to fulfill the professional engagement requirement. Students cannot receive course credit and professional engagement credit for the same work. This requirement must be fulfilled before graduation.

Qualifying Examination

Before admission to candidacy, each student must pass a written and oral qualifying examination. The examination is taken after the bulk of coursework is completed.

Goals

1. To extend and assess a student's ability to plan, draft, and revise two major research papers.
2. To extend and assess a student's readiness to propose and complete a dissertation.

Process

Students will schedule their Qualifying Examination after completing their doctoral course work. Successful completion of the qualifying examination will result in the student's admission to doctoral candidacy. As a doctoral candidate, the student will be eligible to assemble a dissertation committee and begin the dissertation.

Students must apply to and receive permission from the Doctoral Coordinator to initiate the process of taking Qualifying Examinations. The student must choose a faculty advocate once they have obtained permission to take the Qualifying Examinations. The faculty advocate will serve as Chair of the Student Qualifying Examination Committee (SQEC) and must be a full-time non-visiting tenure track member of the Reading and Language Arts Department. The SQEC Chair and the Doctoral student will then identify one additional faculty member to serve on the SQEC who is also a full-time non-visiting tenure-track member of the Reading and Language Arts Department. Note: The SQEC and the Dissertation Committee are separate entities. However, SQEC members may serve on the student's dissertation committee.

Nature of The Doctoral Qualifying Examination

The Qualifying Examination will consist of two papers written, presented, and orally defended in the presence of the Student Qualifying Examination Committee. Although the qualifying examination papers are designed to align with the student's dissertation, the examination candidate will not be obligated to pursue a dissertation topic that coincides with the two papers required for the Qualifying Examination. The Qualifying exam will consist of two of the following three paper options to be determined by the SQEC in collaboration with the doctoral student.

- *Option One:* The candidate will write a review of the research literature on a topic mutually approved by the SQEC and the doctoral student. Ideally, the review topic will align with the student's intended dissertation topic. In such an instance, the student will have completed a *potential* draft of Chapter 2 of a dissertation. Although the SQEC will determine the adequacy of the paper with respect to the Qualifying Examination process, the student's dissertation committee will make all final decisions regarding the modification of the paper for inclusion in the dissertation. The format of the review must be must be agreed upon by the student and the SQEC.
- *Option Two:* The candidate will write a research proposal. Such a paper will follow the general outline appropriate for the third chapter of a typical research dissertation. Ideally, the review topic will align with the student's intended dissertation topic. In such an instance, the student will have completed a potential draft of Chapter 3 of a dissertation. As indicated in Option One, the student's dissertation committee will make all final decisions regarding the modification of

the paper for inclusion in the dissertation. The format of the research proposal must be must be agreed upon by the student and the SQEC.

- *Option Three:* The candidate will write a publishable article connected to literacy. It should follow the requirements of a journal for literacy educators. A student who publishes a peer-reviewed article in a literacy journal during their doctoral program prior to the Qualifying Examination will have fulfilled this component of the Examination.
- *Qualifying Examination Time Schedules:* Students will write, present, and orally defend two papers over the course of no more than 90 calendar days. However, the SQEC may adjust the time schedule to suit the circumstances relevant to the needs and exigencies of individual examination candidates.

The Student Qualifying Examination Committee may permit a student to repeat the qualifying examination. An unacceptable performance on the qualifying examination may result in educational requirements and experiences in addition to those specified in the regular course of study. Passing evaluations on either the written or oral portions of the examination do not preclude the faculty from requiring additional courses or learning experiences if the Student Qualifying Examination Committee deems such actions warranted.

Dissertation

Each candidate must complete a dissertation that makes a contribution to the major field of study. When a student is ready to initiate a dissertation proposal, he or she should nominate a dissertation committee chairperson. The dissertation committee is then formed in consultation with the student's dissertation chairperson. The dissertation committee consists of two full-time non-visiting tenure track faculty members in the Reading and Language Arts department, and a third member who is a qualified member of the professional community with doctoral level credentials. The student's nominees are subject to availability and other constraints. The Doctoral Coordinator must approve the selection of the dissertation committee.

Students pursuing a Ph.D. in Literacy, Culture, and Language may choose one of two dissertation formats: (1) traditional five-chapter dissertation or (2) five- chapter manuscript-style dissertation. The traditional dissertation is designed to guide doctoral candidates through one research experience that culminates in a 5-chapter document. By contrast, the manuscript-style dissertation guides students through multiple research experiences that culminate in two different manuscripts each submitted for publication, wherein the dissertation committee provides support in the submission and revision process for one of these manuscripts if the manuscript is not accepted outright. It is the shared responsibility of the student and dissertation chairperson to choose the format that best fits the student's program areas and needs, which must be made by the student's qualifying exam.

The dissertation committee chairperson advises the candidate through the stages of dissertation preparation. When the dissertation committee chairperson and the student have agreed on a dissertation topic, the student must prepare a written dissertation proposal. Requirements of the dissertation proposal shall be specified by the dissertation chairperson in consultation with the dissertation committee. The penultimate dissertation proposal must be made available, and the proposal defense must be announced two weeks prior to the defense. The student shall present and orally defend the proposal before the dissertation committee and other members of the Reading and Language Arts faculty, insuring that all relevant issues pertaining to the dissertation are considered. Once the dissertation committee approves the proposal, the student may initiate the study.

A penultimate draft of the dissertation must be submitted to the committee for modification and approval before the final copy is prepared and approved by the dissertation committee. Two bound copies of the dissertation are required and are distributed as follows: one copy of the completed dissertation must be submitted to Proquest, and one copy to Kresge Library. Digital copies of the final dissertation are required to be sent to Graduate School Office and uploaded to the OUR@Oakland database.

A minimum of 12 credits in RDG 7999 are required of all doctoral students. Merely amassing dissertation credits does not indicate satisfactory progress toward, or completion of, the dissertation. The dissertation is deemed completed only after a successful oral defense and after final approval of the completed dissertation by the dissertation committee.

Oral Final Examination

Each candidate must orally defend the dissertation before the dissertation committee. The examination is scheduled after the dissertation committee has had at least two weeks to review the penultimate dissertation. The oral defense must be announced to the university at least two weeks prior to the defense. While interested faculty and outside observers may make comments and ask questions, only the dissertation committee certifies approval of the dissertation. The dissertation committee may permit re-examination if the initial dissertation defense is deemed inadequate.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defended, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Oakland University recognizes a variety of circumstances may require a doctoral student to interrupt progress toward a graduate degree. Doctoral students, temporarily unable to continue their programs, may request a "Leave of Absence" for up to two (2) consecutive semesters (Fall/Winter or Winter/Fall). Students should consult the Leave of Absence policy in the Office of Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

All requirements, including the dissertation, must be completed within ten years after admission to the program. The student must achieve candidacy within six years. An extension may be granted with the approval of the Doctoral Coordinator and Oakland University Graduate School.

If one semester during the academic year (i.e., fall and winter semesters) elapses during which no credits are accumulated toward the degree, the student will be considered inactive and may be dropped from the program. Students who are deemed inactive or dropped from the program may be reinstated upon approval of the Doctoral Coordinator and Oakland University Graduate School.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Education: Counseling

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Education: Counseling	Major

Program Type

Doctorate

College/School

School of Education and Human Services (ED)

Department(s)

Counseling

Credit Total

60

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Counseling

491B Pawley Hall ([map](#))

(248) 370-4179 • Fax (248) 370-4141

<http://www.oakland.edu/counseling/>

Coordinator:

Michael Chaney, Ph.D., LPC

435G Pawley Hall

(248) 370-3084

chaney@oakland.edu

Program Description

The Doctor of Philosophy in Education with a major in counseling degree prepares students for leadership roles within the field of counselor education in the areas of counselor training and supervision, research, advanced clinical practice, advanced school counseling practice, and administration. The doctoral program is fully accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

The program allows students to identify and pursue an area of specialization, or Cognate, defined as a minimum of 8 semester hours. Additionally, in compliance with the CACREP guidelines, the program provides for advanced preparation in the following content areas: theories pertaining to the principles and practice of counseling, career development, group work, systems, and consultation; theories and practices of counselor supervision; instructional theory and methods relevant to counselor education; pedagogy relevant to current social and cultural issues, including social change theory and advocacy action planning; design and implementation of quantitative research and methodology, including univariate, multivariate, and single-subject design; design and

implementation of qualitative research, including grounded theory, ethnographic, and phenomenological methodologies; models and methods of assessment and use of data; ethical and legal considerations in counselor education and supervision (e.g., the ACA Code of Ethics); and the role of racial, ethnic, and cultural heritage, nationality, socioeconomic status, family structure, age, gender, sexual orientation, religious and spiritual beliefs, occupation, physical and mental status, local, regional, national, international perspectives, and equity issues in counselor education programs.

Accreditation

The Doctor of Philosophy in Education with a major in counseling degree program is a fully accredited Counselor Education and Supervision program determined by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP).

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- The early deadline is December 15. Preference is given to strong candidates who apply early, but rolling admissions may occur until either (a) the cohort is filled or (b) the final deadline of February 15th is reached.
- **International applicants**

Exceptional applicants may be considered for admission after the deadline on a space available basis.

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - A master's degree in counseling and/or equivalent course work in a related degree field
 - **Recommendation for Graduate Admission form**
Two recommendation forms must be from faculty members of the undergraduate major department or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Goal statement
 - Curriculum Vitae
 - Scholarly writing sample. The writing sample should be an academic, scholarship-oriented paper with citations that adhere to APA formatting guidelines. For example, subjective, reflection-style papers (common in MA programs), client case conceptualizations and treatment plans, etc. are not acceptable writing samples.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Admission to the Doctor of Philosophy in Education with a major in counseling degree program is selective. In addition to the university graduate application requirements, applicants must also satisfy the admission requirements established by the academic program as listed below. Admission to the degree program is a multi-step process:

1. The admissions committee evaluates candidates in the following areas:
 - Prior coursework and GPA at the graduate level
 - Professional and/or leadership experience
 - Academic writing (Goal Statement and scholarly writing sample)
 - Professional recommendations
2. An interview by the faculty.

Final admission recommendations are forwarded to Graduate Admissions by the counseling department faculty. The program is cohort-based and allows for the admission of no more than eight doctoral students every year. Prerequisites will be required if the applicant does not have a master's degree in counseling or the required equivalent courses in a related degree.

Degree Requirements

The Doctor of Philosophy in Education with a major in counseling degree is awarded upon satisfactory completion of a minimum of 60 credits beyond the master's degree in an approved program of study: 20 credits in the foundation core, 28 credits in the department core, 8 credits in the cognate, and a minimum of 4 credits for work toward the completion of a dissertation.

Course Requirements (60 credits)

a. Foundation Core (20 credits)

Required courses:

- **CNS8941 Doctoral Professional Sem I** Doctoral Professional Seminar I (4 credits)
- **CNS8942 Doctoral Professional Sem II** CNS 8942 - Doctoral Professional Seminar II (4 credits)
- **CNS8150 Applied Research** Applied Research (4 credits)
- **CNS8190 Research Methodology** Research Methodology (4 credits) (Qualitative Research)

- **CNS8200 Analytical Methods Analytical Methods (4 credits) (Quantitative Statistics)**

b. Department Core (28 credits)

Required courses:

- **CNS8120 Advanced Theories of CNS Advanced Theories of Counseling (4 credits)**
- **CNS8140 Sociocultural/Legal/Ethical Sociocultural, Legal, and Ethical Issues in Counseling (4 credits)**
- **CNS8180 InstructionTheory/Methods CNS Instructional Theory and Methods in Counseling (4 credits)**
- **CNS8940 Seminar in Couns Supervision Seminar in Counselor Supervision (4 credits)**
- **CNS8130 Adv Group Counseling Advanced Group Counseling (4 credits)**
- **CNS8971 Doctoral Internship I Doctoral Internship I (4 credits)**
- **CNS8972 Doctoral Internship II Doctoral Internship II (4 credits)**

c. Cognate (8 credits minimum)

Each student's cognate includes a minimum of 8 semester hours. The student in conjunction with their Advisor selects graduate level courses from the counseling program or other cognate areas to complete the 8-credit requirement.

d. Dissertation (4 credits minimum)

- **CNS8999 Dissertation Research III Dissertation Research III: Implementation and Writing (4 credits minimum)**

The dissertation is an original scholarly contribution that is designed and conducted under the supervision of an advisory committee of four members. The committee is formed under the guidance of a chairperson nominated by the candidate, who must be a tenured faculty member within the department.

With advice from the chairperson, the candidate identifies two additional members who are full-time faculty within the department, and a fourth doctoral-level committee member who does not hold a full-time appointment within the department. Selection of the doctoral committee is not official until the dissertation chairperson and doctoral coordinator approves it. The candidate is required to remain continuously enrolled during the dissertation process.

The candidate is required to submit a formal proposal to the committee before beginning the dissertation project and to schedule and pass a defense of the proposal before the committee. If the proposal is not accepted, the candidate is required to coordinate with the chair to receive specific feedback and to reschedule. The committee is charged with ensuring that the dissertation meets acceptable standards of scholarly originality and rigor in its conceptualization and implementation. To this end, the committee

may strongly encourage a doctoral candidate to participate in seminars, study groups, or research teams to refine specialized knowledge and skills.

Upon completion of the approved dissertation project, the candidate is required to secure approval from all committee members and schedule a public dissertation defense. At the defense, attended by the committee and members of the academic community, the candidate must successfully present the project and address questions. At the end of the defense, the committee can set conditions for satisfactory completion, and the candidate must demonstrate that these conditions have been met before the candidate is recommended for graduation.

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress (SAP) for all financial aid recipients. The required types of monitoring include Time Limit, Completion Rate, Excessive Withdrawals and GPA Requirements. Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the Office of Financial Aid for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the applicable program and achieve a minimum GPA of 3.0 for every class.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department Requirements: Grades falling below a B (3.0) indicate that the student has not performed at the level expected for graduate study and will result in the student repeating the course and being placed on academic probation. Unsatisfactory and No Progress (NP) grades are equivalent to a grade below a B (3.0). If a student earns below a B/Unsatisfactory/No Progress grade they are required to meet with their advisor, develop a remediation plan, and submit a

new program plan by the start of their probation period. **Two courses with a grade under B (3.0)/Unsatisfactory/No Progress (NP) results in a review by the Academic Performance Committee and will result in dismissal or a remediation plan.**

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Academic Advising

Upon admission to the program, each student is assigned a Doctoral Advisor. The Doctoral Advisor is a doctoral-level faculty member from the Department of Counseling.

During the first semester in the program, a new student is encouraged to learn about the faculty in the department and may prefer to select a different Doctoral Advisor based on compatible styles and research interests. If this is the case, the student should obtain a commitment from the desired Advisor.

The Doctoral Advisor assists the student in developing and implementing a plan of study, meeting at least annually to evaluate the student's progress.

Plan of Study

All accepted applicants, in consultation with their Doctoral advisor, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to Oakland University Graduate School.

Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Qualifying Examinations and Candidacy

Comprehensive examinations must be passed after the completion of all coursework except the dissertation sequence. The examinations, consisting of written responses to a series of questions written and graded by department faculty, are administered annually. Content includes required program elements and specialized information unique to the student's dissertation topic. A student may be required to orally defend a response, and the faculty may recommend additional learning experiences before the student is encouraged to retake portions not passed. All portions must be satisfactory before the student is advanced to doctoral candidacy and permitted to assemble a dissertation committee.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time to Degree

The maximum time limit for completing a Ph.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Education: Educational Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Education: Educational Leadership	Major

Program Type

Doctorate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

76

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Coordinators:

Julia B. Smith

475B Pawley Hall

(248) 370-3082

j15smith@oakland.edu

Eileen S. Johnson

480B Pawley Hall

(248) 370-2627

johnso10@oakland.edu

Program Description

The Doctor of Philosophy in Education with a major in educational leadership is designed to develop individuals who can provide leadership to educational practice in the 21st century, whether through roles in public and private schools, colleges, and universities or by contributing to research and teaching about educational policy and practice. Core concepts in the program include systems thinking, learning theory, and research methodology.

Application Terms and Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- February 1 for fall semester

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. Graduate application requirements

2. **Additional department application requirements**

- An earned master's degree or education specialist degree in administration/leadership is required in advance of admission to the program.
- Recommendation for Graduate Admission form:

Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
- These recommendations form an important part of the admission credentials.
- Goal statement
- Curriculum Vitae or Resume
- Additional department requirements may be requested after submission of application

Admission Review and Assessment

Admission to the Doctor of Philosophy in Education with a major in educational leadership degree program is selective. In addition to graduate admission general requirements, applicants must also satisfy the admission requirements established by the academic program as listed below. Candidates for the Ph.D. in education with a major in educational leadership will be selected based on experience, especially leadership experience, as reflected in an analysis of several criteria:

- The vitae
- The content of two Recommendation for Graduate Admission forms to be solicited by the applicant
- The candidate's graduate grade-point average as reported on official transcripts
- A goal statement
- The writing sample requested by the department following submission of application materials to the graduate admissions office
- An interview with the department may be requested.

Degree Requirements

The Doctor of Philosophy in Education with a major in Educational Leadership degree requires a minimum of 76 credits beyond the master's degree: 12 credits in the foundation core; 20 credits in the department core; 28 credits in the cognate; and a minimum of 16 credits for the dissertation.

Course Requirements (76 credits)

a. Foundation Core (12 credits)

Required courses:

- **ED9940 Professional Seminar I** Doctoral Professional Seminar I (2 credits)
- **ED9941 Professional Seminar II** Doctoral Professional Seminar II (2 credits)
- **ED9010 Research Methodology** Research Methodology (4 credits)
- **ED9020 Analytical Methods** Analytical Methods (4 credits)

b. Department core (20 credits)

Required courses:

- **ED9930 Field-Based Mentor Issues I** Field-Based Mentorship Issues I (2 credits)
- **ED9931 Field-Based Mentor Issues II** Field-Based Mentorship Issues II (2 credits)
- **ED9100 Ldr Research Issues/Prop Dev Leadership** Research Issues and Proposal Development (4 credits)

Choose three courses from the following:

- **ED8410 Phil/Ethical Issues Org Ldrshp** Philosophical and Ethical Issues of Organizational Leadership (4 credits)
- **ED8420 Adv Politics/Policy Org Ldrshp** Advanced Politics and Policy in Organizational Leadership (4 credits)
- **ED8430 Diversity in Orgn Ldrshp** Promoting Diversity and Social Justice in Organizations (4 credits)
- **ED8440 Org/Adlt Lrn Theories/Prof Cap** Organizational and Adult Learning Theories and Building Professional Capital (4 credits)
- **ED8450 Motivation and Org Leadership** Motivation, Change and Innovation for Organizational Leadership (4 credits)
- **ED8460 Prin Org Ldrshp** Principles of Organizational Leadership (4 credits)

c. Cognate Requirement (28 credits)

Those students admitted with a masters degree will select a structured cognate program approved by their advisor or they may, in cooperation with their advisor, design a cognate that draws from courses offered within the School of Education and Human Services and by other schools within the university. The choices of structured cognates are as follows:

- Central Office administration (K-12)
- Counseling

- Early Childhood
- Educational Leadership (K-12)
- Higher Education
- Reading
- Special Education

Students who have completed an Education Specialist degree from Oakland University or another accredited university may reduce the cognate credit requirement for this doctoral degree by up to 28 credits.

Students who have completed a second masters degree in a field related to educational leadership from Oakland University or another accredited university may reduce the cognate credit requirement for this doctoral degree by up to 28 credits.

A primary masters degree may NOT be used for cognate credit for this doctoral degree.

Students who have been awarded a post-masters Graduate Certificate in Higher Education from Oakland University or another accredited university may reduce the cognate credit requirement up to 16 credits for this Ph.D.

Post-masters credits that are not part of an awarded post-masters degree or graduate certificate will be reviewed individually according to Oakland University's transfer credit policy.

d. Dissertation (16 credits)

- **ED9999 Dissertation Research** Dissertation Research (1 TO 16 credits)
- **ED9900 Topics in Advanced Methodology** Topics in Advanced Methodology (1 to 4 credits)
- **ED9942 Doc Wrtg Ed Ldrshp** Doctoral Writing Seminar in Educational Leadership (4 TO 12 credits)

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress (SAP) for all financial aid recipients. The required types of monitoring include Time Limit, Completion Rate, Excessive Withdrawals and GPA Requirements. Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the Office of Financial Aid for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including

the completion of critical degree milestones as set forth by the applicable program and maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Academic Advising

Upon acceptance into the program, the Ph.D. program coordinator will assign an initial adviser. Students who must complete a cognate will be assigned to a program adviser to assist in planning a cognate course of study. Each student will seek a dissertation chairperson after completion of all coursework.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted to the Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Residency

Students must complete a residency for the purpose of concentrating study and fostering close and continuous contact with faculty, fellow graduate students and other professionals. The residency is met by completing 16 credits, excluding dissertation, in two consecutive semesters or 20 credits, excluding dissertation, in one calendar year.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive examination is taken, as well as each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time to Degree

The maximum time limit for completing a Ph.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Education: Early Childhood Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Education: Early Childhood Education	Major

Program Type

Doctorate

College/School

School of Education and Human Services (ED)

Department(s)

Human Development/Child Studies

Credit Total

68

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Human Development and Child Studies

405B Pawley Hall ([map](#))

(248) 370-3077 • Fax (248) 370-4242

<http://www.oakland.edu/sehs/hdcs/>

Coordinator:

Tomoko Wakabayashi

405C Pawley Hall

(248) 370-3078

twakabayashi@oakland.edu

Program Description

The Ph.D. in Education with a major in early childhood education is designed to prepare leaders for the field. The goals of the program are to develop and support leadership, research, and policy that will inform, support, and promote education for young children. Major areas of focus include early childhood development and educational theories, research, and policies, curricular and program approaches, literacy, cultural diversity, and transition to preschool and primary school classrooms.

The program provides preparation in quantitative and qualitative research methods. Students also select a cognate in a complementary area including special education, reading, educational leadership and administration, counseling, curriculum, professional development, Applied Behavior Analysis (ABA), or other academic areas.

Graduates of the program are prepared to assume leadership, teaching, or research and policy positions in early childhood care and education settings, school systems, colleges and universities, early childhood organizations and government.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below.

- July 1 for fall semester (May 1st for International applicants)
- Students are admitted in the fall semester only. Applications will be accepted until July 1 or the following fall semester.

Application requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Official transcripts for all undergraduate and graduate colleges and universities attended
 - **Requirements for recommendations:**
Three recommendation forms must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - At least one of the recommendations must be from a graduate academic source and one from a professional in the field.
 - Professional curriculum vitae
 - Personal essay statement, describing professional goals, experiences, and philosophy
 - Two writing samples related to early childhood education, which may include professional reports, academic course papers, publications, or presentations
 - An interview for applicant finalists (scheduled by the program coordinator) with the coordinator and other faculty members, and a written assignment to be completed as part of the interview. An additional written assignment may be required.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate and graduate records, goal statement, letters of recommendation, prerequisite courses and degrees, and any other admission requirements established by the academic department.

Finalists will be selected based upon a review of the application documents and the following criteria:

- Completion of a master's degree or equivalent in early childhood education or an allied field
- Minimum graduate grade-point average of 3.6
- Three years of professional experience in early childhood education or an allied field.

Degree Requirements

The Doctor of Philosophy in Education: Early Childhood education degree is awarded upon satisfactory completion of a minimum of 68 credits beyond the master's degree in an approved program of study: 12 credits in the foundation core, 28 credits in the department core, 16 credits in the cognate, and a minimum of 12 credits for the dissertation.

Previously earned graduate credits may apply if they did not count toward the qualifying master's degree and if they are equivalent to a required course for the program or are part of an approved cognate.

Course Requirements (68 credits)

a. Foundation Core (12 credits)

Required courses:

- **EC9940 Doctoral Prof Seminar I Doctoral Professional Seminar I (2 credits)**
- **EC9941 Doctoral Prof Seminar II Doctoral Professional Seminar II (2 credits)**
- **EC9010 Research Methodology Research Methodology (4 credits)**
- **EC9020 Analytical Methods Analytical Methods (4 credits)**

b. Department Core (28 credits)

Required courses:

- **EC9947 Ecology of Early Learning Ecology of Early Learning: Health, Care and Education (4 credits)**
- **EC9946 Early Dev Lrng Theories Development and Early Learning: Theories and Research Studies (4 credits)**
- **EC9944 Paradigms Early Curric Paradigms of Early Education and Curriculum Design (4 credits)**
- **EC9931 Field-Based Project I Field-Based Project I (A total of 4 credits is required. Can take 2 credits at a time.)**
- **EC9932 Field-Based Project II Field-Based Project II (2 OR 4 credits) (A total of 4 credits is required. Can take 2 credits at a time.)**
- **EC9948 Policy Studies Early Education Policy Studies in Early Education: Culture, Economics and Politics (4 credits)**

- **SE9972 Special Ed EC Seminar Special Education: Early Childhood Seminar (4 credits)**

c. Cognate (16 minimum credits)

The cognate courses should complement the core foundation and department courses. The cognate area of study may include courses within or outside the department upon advisement by the adviser and the program coordinator.

d. Dissertation (12 minimum credits)

- **EC9998 Comp Exm/Dissertation Prosl Comprehensive Qualifying Exam Preparation and Dissertation Proposal (1 TO 8 credits)**
- **EC9999 Diss Implement Analys/Writing Dissertation Implementation, Analysis and Writing (1 TO 8 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program Information

Academic Advising

Upon acceptance into the program, students are advised initially by the early childhood Ph.D. program coordinator. Toward the end of the first year of study, each student, in consultation with the program coordinator and faculty members, selects a faculty adviser who guides the student in planning a program of study, including establishment of a portfolio, design of a cognate, and preparation for completion of qualifying comprehensive exams and the dissertation. The adviser and program coordinator advise the student to form a committee of faculty members who will provide further guidance and evaluation for the exams and the dissertation.

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the program coordinator and the adviser and submitted by the student to Oakland University Graduate School.

Doctoral students must submit an approved plan of study prior to completion of the first year of coursework.

Residency Requirement

Students must complete at least 16 credits (excluding dissertation credits) during one of the academic (or calendar) years of the student's program of doctoral study. Further, students are required to register for at least one credit every fall and winter after their admission to the program. Exceptions to this policy must be approved by the program coordinator.

Qualifying Comprehensive Examinations

To prepare for exams, the student's adviser and a minimum of two additional faculty members comprise the Doctoral Advisory Exam Committee and meet with the student to review the student's portfolio - a major source for determining the student's interests, strengths, and areas for further development. When the student elects to take the exams, the committee either grants approval to proceed or proposes a plan for further study, coursework, or other appropriate preparation necessary for taking the exams. Exam questions assess the student's knowledge with respect to challenging issues in the field, e.g., comparing and contrasting major theories, approaches, and policies in early childhood education and care; implications of the knowledge base for child care and education, preschool, and primary school early childhood curricula/programs; and for designing early childhood curricula and program approaches, evaluations, research studies, and policy initiatives.

To pass qualifying exams, the student must demonstrate competence in the following four segments:

1. Comprehensive knowledge of the foundational core and early childhood education. This exam segment assesses the student's knowledge of the foundational and early childhood core coursework areas, including the major theories, research methods and findings, educational

practices and public policies. This segment of the exam is conducted on a "take-home" basis, with a limited time frame.

2. In-depth knowledge of a specific area in early childhood education. This segment of the exam is a qualifying paper that demonstrates an in-depth knowledge of a particular area of focus. The topic must be approved by the chair of the Doctoral Advisory Committee, who also sets a minimum page requirement and a style format. The paper must be completed by a date set by the program coordinator as a part of the exam process.
3. Comprehensive knowledge of a cognate area. This exam segment assesses the student's knowledge in a cognate area (a complementary area of study). This segment of the exam is conducted on a "take-home" basis, with a limited time frame.
4. The oral examination. Upon successful completion of the written segments of the qualifying comprehensive exam (parts 1, 2, and 3) explained above, the student proceeds to take the oral segment of the exams. This exam segment provides an opportunity for the student to make a presentation in an area of special interest (usually the area of the in-depth paper) and to demonstrate the ability to respond to questions from the faculty about the presentation and related issues.

The Doctoral Advisory Committee assesses the student's performance on the written and oral parts of the exam to determine if the student is adequately prepared to proceed as a candidate for dissertation preparation. If the student's qualifying exam performance is determined to be inadequate, the Doctoral Advisory Committee may recommend further preparation, e.g., coursework, writing, or study.

Dissertation

The dissertation is an original contribution to the field of study through disciplined inquiry. Conducting the dissertation study, writing, and defending a dissertation should be accomplished in accordance with the highest professional standards. The student's dissertation adviser and a minimum of three additional faculty members (one external to the department) comprise the Dissertation Committee and advise the student on the formation of a dissertation proposal. The written format for the proposal is specified by the committee, and the student orally presents and defends the dissertation proposal. The committee assesses the student's written and oral presentation of the proposal and determines if modifications in the proposal are needed prior to the student conducting the research. The committee members, led by the dissertation adviser, continue to advise the student throughout the research and the preparation of the dissertation manuscript. Students must obtain a copy of the dissertation format requirements from Oakland University Graduate School and the dissertation manuscript must conform to university standards.

Final Oral Examination and Dissertation Defense

The oral defense of the dissertation is held after the dissertation is completed and approved by the committee. The purpose of the oral defense is to enable the Dissertation Committee to judge the quality of the investigation and the student's ability to defend and communicate the work. The announcement of the date, time, and location of the defense is distributed to the faculty. The oral defense is to be attended by the Dissertation Committee members and is open to all School of Education and Human Services faculty and the university community. Final approval and acceptance of the doctoral dissertation requires a favorable vote of the Dissertation Committee with no more than one dissenting vote. The Dissertation Committee determines the adequacy of the student's oral defense and if there are to be modifications in the dissertation manuscript, which is then subject to final approval by the committee. The committee may permit reexamination, if the initial dissertation defense is deemed inadequate.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive qualifying examination and the preliminary dissertation proposal oral defense are completed, and for each subsequent term (fall and winter) until all the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

The maximum time limit for completing a Ph.D. degree is no more than ten years from the term of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

Graduation

Three copies of the approved dissertation manuscript must be submitted to Oakland University Graduate School by the date published in the *Schedule of Classes* for the term in which the student expects to graduate. (See [Thesis and Dissertation](#)).

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Science and Informatics

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Computer Science and Informatics	Major

Program Type

Doctorate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

80

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Department of Computer Science and Engineering

546 Engineering Center ([map](#))

(248) 370-2200 • Fax (248) 370-4625

<http://www.cse.secs.oakland.edu/ >

Coordinator

Lanyu Xu

546 Engineering Center

(248) 370-4079

lxu@oakland.edu

Program Description

The Doctor of Philosophy in computer science and informatics is for students who plan to pursue research and development related careers in industrial, governmental, or academic settings.

The computer science stream trains doctoral students to become researchers in traditional disciplines within the computer sciences and generally requires that the incoming student hold an undergraduate or graduate degree in computer science or equivalent.

The software and information technology stream aims to train doctoral students to become researchers in applied computing and computational sciences and possibly conduct research in multidisciplinary areas.

Program Delivery

As a significant number of graduate courses are offered in the afternoon and late evenings, students can begin the doctoral program on a part-time basis while holding full-time employment. However, later phases of the program will require students to commit a larger fraction of their time for dissertation research.

The program admits students for both part-time and full-time study. The entire program must be completed in seven calendar years, regardless of whether the student is full-time or part-time.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received by the Oakland University Graduate School by the semester deadlines. Students seeking funded GA or TA positions should apply by the "early" deadline for starts in Fall and Winter semesters and the "regular" deadline for summer semesters. **International applicants must apply before the international student deadlines for full consideration.** All required materials must be submitted for the application to be considered complete, and applications must be completed by the posted deadline. Incomplete applications will not be sent to the department for admission review. Applications received *after* the posted deadlines will be held and considered for a start date in the subsequent semester.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission form:**
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Statement of research objectives and goals, including applicant's primary research interests and how those align with the interests of specific faculty members.
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency

of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:

- Applicant's overall GPA from last degree is at least 3.5 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - Applicants may request to waive the GMAT/GRE. The waiver is integrated into the application process. Once you submit and pay the application charge, the form will be available under your checklist items.
- Admission to Ph.D. program is selective; applicants should have an M.S. degree GPA of 3.5 on a 4.0 scale or better for regular admission.
 - If the applicant's M.S. GPA is between 3.0 and 3.5 on a 4.0 scale, and the percentile score of the GRE Quantitative Reasoning section is 70% or better, admission with limited standing may be offered.
 - Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.
 - Normally a master's degree from an accredited institution is required for admission; however, students with outstanding undergraduate records may apply directly for admission to the doctoral program.
 - The Ph.D. in computer science and informatics degree program is designed for students with academic backgrounds in engineering and computing. Students with backgrounds in mathematics or the physical sciences may also be admitted to the program, but they will be required to build up basic engineering/computing knowledge through relevant coursework.
 - Special consideration may be given if a student does not meet the admission criteria listed above but demonstrates potential for academic excellence through research publications, patents, and awards, etc. In addition, the student must be recommended by an SECS faculty member.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, the department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and GRE scores.

Degree Requirements

The Doctor of Philosophy in computer science and informatics degree is awarded upon satisfactory completion of 80 credits in an approved program of study.

At least 56 credits must be earned for coursework beyond the bachelor's degree (exclusive of dissertation). The normal full-time load is 8 to 12 credits per semester.

Students who have previously earned a master's degree from Oakland University or another regionally-accredited institution may reduce the 56 credits of coursework required for the doctoral degree by up to 32 credits to be considered for a reduction in required doctoral credits, students must submit a PhD PASS form. The chair of the doctoral advisory committee (or the department chair prior to selection of the doctoral advisory committee chair) will evaluate the student's prior master's degree work and may reduce the required Ph.D. credits based on the master's coursework. The PASS form needs to be approved by the Dean's office and be on file in Oakland University Graduate School by the end of the first year of doctoral study. All candidates must complete at least 24 credits of additional coursework exclusively at Oakland University.

Course Requirements (80 credits)

The total credits required to obtain a Ph.D. in computer science and informatics degree is 80. Students are required to complete a minimum of 56 credits of graduate coursework and a minimum of 24 credits of dissertation research. Approved courses taken as a part of a master's degree may be used towards satisfying this requirement. Deviations from the plan below are allowed with the approval of their doctoral advisory committee (DAC).

a. Foundation Courses (12 credits)

Required courses:

- **CSI7995 Research Methodology in CS Research Methodology in Computer Science** (2 credits)
- **CSI7940 Research Seminar in CS Research Seminar in Computer Science** (2 credits)

b. Track Requirements (12 credits)

Choose one course from the following:

- **APM6665 Approx Rndm Discrete Algorithm Approximation and Randomized Discrete Algorithms** (4 credits)
- **APM5669 Graph Theory & Applications Graph Theory and Applications** (4 credits)
- **APM5777 Computer Algebra Computer Algebra** (4 credits)
- **APM5333 Numerical Methods Numerical Methods** (4 credits)
- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I** (4 credits)
- **MTH5661 Topology I Topology I** (4 credits)
- **MTH6551 Functional Analysis I Functional Analysis** (4 credits)

- **STA5113 Intro Mathematical/Stats I Introduction to Mathematical Statistics I** (4 credits)
- **STA5225 Stochastic Processes I Stochastic Processes I** (4 credits)
- **STA5221 Multivariate Stat Methods I Multivariate Statistical Methods I** (4 credits)
- **STA5227 Linear Statistical Models Linear Statistical Models** (4 credits)
- **STA5330 Time Series I Time Series I** (4 credits)
- **STA5331 Bayesian Data Analysis Bayesian Data Analysis** (4 credits)
- **STA6110 Probability Theory Probability Theory** (4 credits)

c. Electives or Previous Master's Coursework Credit (32 credits)

- To be selected by student. Note that prerequisite courses (CSI 5005, CSI 5006, AND CSI 5007) cannot be counted toward PhD degree.

d. Previous Master's Coursework (maximum 32 credits)

- Up to 32 credits of master's coursework related to the Ph.D. dissertation research may be applied.

Dissertation Research (24 credits)

- **CSI8999 Doctoral Dissertation Research Doctoral Dissertation Research** (1 to 12)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department Requirements: In the Doctor of Philosophy in computer science and informatics degree program, credit will not be awarded for courses in which a grade less than 3.0 is earned. All numerical grades earned are used in computing a student's grade-point average.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Initial Advising

After admission to the Ph.D. program, a student should consult with the Program Coordinator for any advice until formulation of an Advisory Committee. The faculty advisor assists students with developing the study plan and monitors the student's progress toward the degree. The advisor also serves as the chair of the dissertation committee and monitors the research progress. Finding a faculty advisor is one of the first required tasks in the program. Students typically enter the program with an assigned faculty advisor.

Plan of Study

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Upon admission, doctoral students must develop a plan of study in consultation with the department chair. As soon as the student forms an advisory committee, the committee reviews and updates the plan of study then forwards it to the dean's office. The original plan of study must be submitted to the dean's office, and when approved, it will be forwarded to Oakland University Graduate School.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advisory Committee

As soon as possible after admission, but prior to earning 8 credits of coursework, students must form an advisory committee, which will direct and guide the progress of their program. Such a committee is composed of four faculty members, specified as follows:

- Two tenure track faculty members from the Computer Science and Engineering Department nominated by the student, one designated as the committee chair.
- One faculty member who is from any department within the School of Engineering and Computer Science or an expert from outside of Oakland University (who must have a Ph.D. or equivalent degree).
- One Oakland University faculty member outside the School of Engineering and Computer Science.

Upon recommendation of the advisory committee, following successful completion of the Ph.D. comprehensive examination, one member from within or outside the university community may be added to the committee for the dissertation proposal review. Exceptions can be petitioned to both the Associate Dean and Chair of the Department of Computer Science and Engineering for approval.

The composition of the entire advisory committee must be approved by the Dean of the School of Engineering and Computer Science and Oakland University Graduate School.

Enrollment

At least 24 credits of graduate coursework, excluding the dissertation credits, must be completed at Oakland University. Further, all students are required to register for at least one credit every fall and winter semester in every academic year, after their admission to the program.

Pre-Candidacy

All students enter their program in the pre-candidacy stage. In this stage, students complete advanced coursework in core areas and gain the knowledge and skills to conduct independent scholarly research. Students must have the minimum program GPA and submit the necessary paperwork to schedule the exam. Students are encouraged to discuss details about qualifying exams with their program Ph.D. program coordinator.

Qualifying Examinations

There are two qualification exams, and they should be taken in sequence: the Core Exam and the Comprehensive Exam. To take these exams, a student must have completed 2 courses from the Breath Coursework for the Core Exam and 2 courses from the Depth Coursework for the Comprehensive Exam. They will be given two attempts to pass each exam.

Foundations Requirement: The goal of this examination will be to ensure that students have a good understanding of the fundamentals of Computer Science. The examination committee will be selected from the Graduate Committee of the Department. The examination will include the following steps:

1. Two core computer science graduate-level courses are selected by the student, during the first semester of the program.
2. For each of two courses, if the student receives at least an A- in this course, the written exam is waived. However, if the student receives a grade lower than A- in at least one of the two courses, an hour-long written examination on the course material, together with the underlying undergraduate material, is taken by the student.

Specialty Requirement: The goal of this examination will be to ensure that students have a good understanding of the broad research area of the student. The examination committee will be selected from the PhD program committee of the Department. The examination will include the following steps:

1. Two specialty computer science graduate-level courses are selected by the student, during the first semester of the program.

2. For each of two courses, if the student receives at least an A- in this course, the written exam is waived. However, if the student receives a grade lower than A- in at least one of the two courses, an hour-long written examination on the course material, together with the underlying undergraduate material, is taken by the student.

Oral Examination: The student's ability to conduct independent research is evaluated. The examination will include the following steps:

1. The student will submit a written report of a project they have completed after enrolling in the program, e.g., as conducted during **CSI7970 Independent Study**(the written report could be a submitted paper to a journal/conference),
2. The student will participate in a 90-minute oral examination conducted by three CSE faculty members, where one of them has research interests outside the scope of the student's research, and none of whom can be the student's research advisor. The student should prepare a 45-minute presentation, followed by up to 45 minutes of questions. Examiners will be given the written report on the directed study at least one week before the examination, and each examiner will submit a written report on the examination. The student must submit their written report to the PhD program coordinator and the examiners at least one week before the oral exam begins. Upon completion of the exam, the examiners should report the outcome (pass, conditional pass, fail) to the PhD program coordinator.

Research Publication

Students are required to have accepted article(s) based on their dissertation in a scholarly peer-reviewed journal or reputable conference paper as defined by the CSE department. This is a requirement for students in the Ph.D. Computer Science and Informatics prior to scheduling the dissertation oral defense. Students are encouraged to reach out to their Ph.D. advisors and Ph.D. program coordinator about any additional research publication requirements.

Candidacy

Students should advance to candidacy within three years of first enrollment (students entering the program with a master's degree should advance to candidacy within 2 years) and meet the following requirements:

- Completion of all required coursework
- Completion of the qualifying exams
- Request approval of the dissertation committee
- Completion of the responsible conduct of research and scholarship training
- Achievement of the minimum program and course GPA

Dissertation Proposal

Students should reach this milestone within one year of passing the qualifying exam. Students may be given a maximum of two attempts to pass the oral defense. Students must submit the written proposal to the dissertation committee for review prior to the oral defense. After the defense, the student will receive written feedback from the Committee based on the proposal rubric. Students with unsatisfactory performance may, at the discretion of the Program Director, be granted a second and final attempt. Students must be registered in the term in which they defend and may defend in the fall, winter, or full summer term. Distinguished performance may be awarded and must be unanimous. Students are encouraged to discuss details with the Ph.D. program coordinator and faculty advisor.

Dissertation Research and Oral Defense

Students must complete the dissertation defense, based on the student's original independent research, within five years after Candidacy but no more than seven years from first enrollment. A copy of the written dissertation approved by the faculty advisor/dissertation chair must be submitted to the dissertation committee at least two weeks prior to the oral defense. Each member of the dissertation committee will complete written feedback of the written dissertation prior to the oral defense. Three days prior to the oral defense, the Ph.D. program Coordinator must review the written dissertation assessments from the committee members and authorize the oral defense. The written dissertation report and the oral defense will be assessed based on the dissertation rubric. After the defense, the student will receive written feedback and the Committee will decide based on the rubric if the student's performance meets the requirement, is distinguished, or does not meet the requirement. Students whose performance was unsatisfactory for the written dissertation and/or oral defense must meet with their research advisor/dissertation committee chair for the next steps. Students must be registered in the term in which they defend and may defend in the fall, winter, or full summer term. Distinguished performance may be awarded and must be unanimous.

The completed dissertation must conform to university standards (see **Thesis and Dissertation**).

Annual Progress Review

At the end of each year, each student must complete an annual review meeting with his or her research advisor. At the review, the study plan is updated with completed courses and grades. The student must also submit information detailing any accomplishments such as awards, publications, presentations, and conferences over the year. The CSE graduate committee or program coordinator also conducts an annual review of all students' files. If the student is not making satisfactory progress toward the degree, the student may be placed on probation and must document a

remediation plan. **The completed review is due by May 31 each year. Students may receive a hold on their record if the review is not submitted.**

- If a student's progress is concerning or unsatisfactory, a mid-year review is required to reevaluate the student's progress. The faculty advisor and the Ph.D. program coordinator should create a plan of action for students not making satisfactory progress.
- If the student is making unsatisfactory progress, the student may lose funding, be denied permission to register, be required to withdraw, and/or be dismissed from the Ph.D. program effective the next term.

Satisfactory Academic Progress

A student who fails to maintain satisfactory academic progress in their program will be placed on probation for a maximum of one term. To be in good academic standing, the student must meet the standards set by the Ph.D. degree program in Computer Science and Informatics, the School of Engineering and Computer Science, the OU Graduate School and those set by the University. Essentially, a student must make satisfactory progress toward fulfilling all requirements for the degree to include: coursework, milestone timeline, exams, and research. Examples of failure to make satisfactory academic progress are unsatisfactory performance in classes, unsatisfactory performance on qualifying exams, unsatisfactory research progress, falling below the overall and or minimum GPA requirement, and failure to meet milestone deadlines and other program requirements.

Research Credits

Students who have advisory committee approval of their dissertation proposals and are conducting research should register for CSI 8999. At least 24 research credits are required of all doctoral candidates. However, merely amassing credits does not indicate satisfactory progress toward or completion of the dissertation. These judgments are made by the advisory committee. The dissertation is judged completed upon successful completion of the final examination and acceptance of the dissertation by Oakland University Graduate School.

Residence

Writing a doctoral dissertation requires a full commitment to research. Such research cannot be effectively pursued in an environment which places research in a secondary role. Doctoral students are required to be full-time students for at least one year of their active dissertation research. The doctoral student should arrange such a period of residency by 1) registering for at least 8 credits of doctoral dissertation research for two consecutive semesters and 2) making a commitment, in a statement addressed to his/her advisory committee, to a program of full-time research (at least 20 hours per week).

The above represents the normal residency requirement. However, if the present occupation of the candidate (e.g., industrial research or teaching) is conducive to the intended research, there is an alternative method to fulfill the residency requirement. To arrange for the alternative residency, the candidate must apply in writing to his/

her advisory committee at the time of the dissertation proposal review. The committee must be furnished with a written statement by the candidate's employer confirming that the dissertation research constitutes a major portion of the job assignment. If the advisory committee grants permission to pursue this option, the student must enroll in doctoral dissertation research (8 credits maximum) for at least two consecutive semesters.

Final Dissertation Defense

The oral defense of the dissertation may be held after the dissertation is completed and approved by the advisory committee. The purpose of the oral defense is to enable the dissertation committee to judge the quality of the investigation and the student's ability to defend and communicate the work. The originality of the dissertation representing advancement in the field of study is typically evidenced through the student's participation in technical conferences in related research areas, as well as by publication of their research findings in peer-reviewed, refereed journals. An announcement of the date, time, and location of the defense, along with a one-page abstract, is distributed to the faculty and to Oakland University Graduate School. The oral defense must be attended by members of the advisory committee and is open to the university community and public at large. Final approval and acceptance of the doctoral dissertation requires a favorable vote of the advisory committee with no more than one dissenting vote. The committee may permit a re-examination if the initial dissertation defense is deemed inadequate.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive option or oral examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limits

The maximum time limit for completing a Ph.D. degree is no more than seven years from the time of the first-course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within three years from the first-course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within an average of three years (including the dissertation defense).

If a student is deemed inactive, he or she may be dropped out of the program despite the petition for extension.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mechanical Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Mechanical Engineering	Major

Program Type

Doctorate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Mechanical Engineering

Credit Total

80

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Department of Mechanical Engineering

402 Engineering Center ([map](#))
(248) 370-2210 • Fax (248) 370-4416
<http://www.oakland.edu/secs/me>

Coordinator

Qian Zou
301D Engineering Center
(248) 370-2233
qzou@oakland.edu

Program Description

The Doctor of Philosophy in Mechanical Engineering degree is designed for students who plan to have careers in industrial or governmental research and development laboratories or problem-oriented agencies, as well as in the academic field.

The field of mechanical engineering includes areas such as dynamics, vibrations and noise, energy systems, automotive engineering design, thermal energy transport, fluid transport, experimental stress analysis, solid mechanics, manufacturing processes and materials, tribology, numerical techniques, optical inspection, mechanics of metal forming, fasteners and bolted joints, and fuel cells. The Department of Mechanical Engineering is concentrating its efforts in these areas at the Ph.D. level.

Program Delivery

Students can begin doctoral study on a part-time basis, availing themselves of late afternoon or evening courses while working full time in local industry. However, later phases of study and research will require full-time devotion to the program. Students must also fulfill a residency requirement.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - **Recommendation for Graduate Admission Form:**
Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Statement of research objectives and goals
 - Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's overall GPA from last degree is at least 3.5 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.
 - To request a waiver, applicants must submit a **Request to Waive GMAT/GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee

- Admission to Ph.D. program is selective; applicants should have an M.S. degree GPA of 3.5 on a 4.0 scale or better for regular admission.
- If the applicant's M.S. GPA is between 3.0 and 3.5 on a 4.0 scale, and the percentile score of the GRE Quantitative Reasoning section is 70% or better, admission with limited standing may be offered.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.
- Normally a master's degree from an accredited institution is required for admission; however, students with outstanding undergraduate records may apply directly for admission to the doctoral program.
- The Ph.D. in mechanical engineering degree program is designed for students with an academic background in mechanical engineering. Students with backgrounds in other engineering disciplines, computer science, mathematics or the physical sciences may also be admitted to the program, but they will be required to augment their basic mechanical engineering knowledge through relevant coursework.
- Special consideration may be given if a student does not meet the admission criteria listed above but demonstrates potential for academic excellence through research publications, patents, and awards, etc. In addition, the student must be recommended by a SECS faculty member.

Admission Review and Assessment

Admission to graduate study at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements (80 credits)

The Doctor of Philosophy in Mechanical Engineering degree program is awarded upon satisfactory completion of 80 credits in an approved program of study. In addition to 56 credits of coursework beyond the bachelor's degree, students must also complete a minimum of 24 credits of dissertation research.

At least 56 credits must be earned for coursework beyond the bachelor's degree (exclusive of dissertation). The normal full-time credit load is 8 to 12 credits per semester.

Students who have previously earned a master's degree from Oakland University or another regionally-accredited institution may reduce the 56 credits of coursework required for the doctoral degree by up to 32 credits. To be considered for a reduction in required doctoral credits, students must submit a PhD PASS form. The chair of the doctoral advisory committee (or the department chair prior to selection of the doctoral advisory committee chair) will evaluate the student's prior master's degree work and may reduce the required Ph.D. credits based on the master's coursework. The PASS form needs to be approved by the Dean's office and be on file in Oakland University Graduate School by the end of the first year of doctoral study. All candidates must complete at least 24 credits of additional coursework exclusively at Oakland University.

Course Requirements (56 credits)

The total credits required to obtain a Ph.D. in mechanical engineering degree is 80. Students are required to complete a minimum of 56 credits of graduate coursework and a minimum of 24 credits of dissertation research. Approved courses taken as a part of a master's degree may be used towards satisfying this requirement. Students may also take graduate courses from other departments with the approval of their advisory committee. Deviations from the plan below are allowed with the approval of their doctoral advisory committee (DAC).

a. Mathematics Courses (8 credits)

Required courses:

- **APM5441 Math Analysis For Engineers I Mathematical Analysis for Engineers I (4 credits)**
- **APM5442 Math Analysis For Engineers II Mathematical Analysis for Engineers II (4 credits)**

b. Electives (minimum of 16 credits)

Select two depth areas from the list below. From each depth area, select two courses (5000-level and/or 6000-level ME courses) in consultation with the doctoral advisory committee.

- **Manufacturing Processes and Materials**
- **Experimental Stress Analysis**
- **Dynamics, Vibrations and Noise**
- **Automotive Engineering Design**
- **Energy Systems**
- **Thermal Energy Transport**
- **Fluid Transport**
- **Solid Mechanics**
- **Tribology**
- **Numerical Techniques**

- **Optical Inspection**
- **Mechanics of Metal Forming**
- **Fasteners and Bolted Joints**
- **Fuel Cells and/or Batteries**
- **Reliability Methods**

c. Previous Master's Coursework (maximum of 32 credits)

- Up to 32 credits of master's coursework related to the Ph.D. dissertation research may be applied.

Dissertation (24 credits)

- **ME8999 Doctoral Dissertation Research Doctoral Dissertation Research (1 TO 12 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in

throughout the entire course of their graduate program. To be in **good Academic Standing** a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In the Ph.D. program, credit will not be awarded for courses in which a grade less than 3.0 is earned. All numerical grades earned are used in computing a student's grade-point average.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Upon admission, doctoral students must develop a plan of study in consultation with the department chair. As soon as the student forms an advisory committee, the committee reviews and updates the plan of study then forwards it to the dean's office. The original plan of study must be submitted to the dean's office, and when approved, it will be forwarded to Oakland University Graduate School.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Initial Advising

After admission to the Ph.D. program, a student should consult with the Program Coordinator for any advice until formulation of an Advisory Committee.

Advisory Committee

As soon as possible after admission, but no later than after completing 8 credits of coursework, students must identify an advisor, who will direct and guide the progress of their program, and assist in forming an advisory committee. Such a committee is composed of at least four members who must have a Ph.D. or equivalent degree, specified as follows:

- Three mechanical engineering faculty members nominated by the student, at least two of whom must be tenured or tenure track faculty at Oakland University (one designated as chair)
- One faculty member or outside expert in a field relevant to the dissertation research

The entire committee must have the approval of the Dean of the School of Engineering and Computer Science and the Oakland University Graduate School.

Upon recommendation of the advisory committee, following successful completion of the Ph.D. comprehensive examination, one member from within or outside the university community may be added to the committee for the dissertation proposal and review.

The entire committee must have the approval of the Dean of the School of Engineering and Computer Science and Oakland University Graduate School.

Comprehensive Examination

Doctoral students in Mechanical Engineering are required to take a comprehensive examination preferably within the first two years of their doctoral studies but no later than four years after their admission to the Ph.D. program. The exact timing will be determined by their Ph.D. advisor. The students must schedule the exam at least two weeks in advance using the "Ph.D. Pass Form" that is available on the SECS website.

The comprehensive examination is designed to assess the student's analytical reasoning, theoretical understanding, and preparedness to do independent research. The comprehensive examination is composed of a written component and an oral component. The written component includes three parts. Two are discipline-specific selected by the student's advisory committee based on the individual student's coursework and research. The third examination area is in mathematics covering the topics in APM 5441 and APM 5442.

The students are encouraged to take the comprehensive examinations during the SECS centralized exam schedule which will be given twice per year, usually on the first, second, and third Friday of October in fall semester and the first, second, and third Friday after the spring break in winter semester. The student must complete all three written examinations within three weeks. Upon passing the written exams, the student should complete the oral examination within two weeks after the last written examination. The oral portion of the exam will be given by the student's advisory committee plus any other faculty who have written a portion of the exams.

The student must obtain passing grades on both the written and oral portions to pass the comprehensive exam. To pass the written exam, the student must obtain an average grade of 70% among the three written exams and must have no more than one individual exam grade below 70% but not lower than 60%. A student who fails to pass the comprehensive examination may repeat it once during the next available exam date. If a student scores above 80% in any of the three subject exams, the committee may decide not to retest the student on that subject area. Students who pass the comprehensive exam but exhibit weakness in a specific area may be required by their advisory committee to complete additional coursework to address the deficiency. All comprehensive exams must be monitored in person by a doctoral advisory committee member or a representative of the committee and exams are to be taken on campus.

Dissertation Proposal

As soon as a candidate and the advisory committee chair agree on a specific research topic, the candidate must write a dissertation proposal. This document contains a formulation of the problem, the background work leading to the formulation, and a plan for the subsequent research. Candidates must orally present the proposal to their advisory committees and any other interested faculty, at which time the committee may question the preparedness of the student to carry out the research.

Research Credits

Students who have advisory committee approval of their dissertation proposals and are conducting research should register for **ME8999 Doctoral Dissertation Research**. At least 24 research credits are required of all doctoral candidates. However, merely amassing credits does not indicate satisfactory progress toward or completion

of the dissertation. These judgments are made by the advisory committee. The dissertation is judged completed upon successful completion of the final examination and acceptance of the dissertation by Oakland University Graduate School.

Dissertation

Each candidate will submit a dissertation to the advisory committee. The dissertation must be the candidate's own work and must constitute a contribution to knowledge in his/her field of endeavor. The completed dissertation must conform to university standards (see **Thesis and Dissertation**).

Residence

Writing a doctoral dissertation requires a full commitment to research. Such research cannot be effectively pursued in an environment which places research in a secondary role. Doctoral students are required to be full-time students for at least one year of their active dissertation research. The doctoral student should arrange such a period of residency by 1) registering for at least 8 credits of doctoral dissertation research for two consecutive semesters and 2) making a commitment, in a statement addressed to his/her advisory committee, to a program of full-time (at least 20 hours per week) research.

The above represents the normal residency requirement. However, if the present occupation of the candidate (e.g., industrial research or teaching) is conducive to the intended research, there is an alternative method to fulfill the residency requirement. To arrange for the alternative residency, the candidate must apply in writing to his/her advisory committee at the time of the dissertation proposal review. The committee must be furnished with a written statement by the candidate's employer confirming that the dissertation research constitutes a major portion of the job assignment. If the advisory committee grants permission to pursue this option, the student must enroll in doctoral dissertation research (8 credits maximum) for at least two consecutive semesters.

Final Examination

Each Ph.D. candidate must satisfactorily defend the dissertation in a final oral examination administered by the advisory committee. The examination is taken after the advisory committee certifies that the dissertation is ready for final review. At the committee's option, one re-examination may be permitted if a candidate fails to pass the final examination. The completed dissertation must conform to university standards (see Master's thesis/ doctoral dissertation in the Policies and Procedures section of this catalog).

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans

Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limit

The maximum time limit for completing a Ph.D. degree is no more than ten years from the time of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

If a student is deemed inactive, he or she may be dropped out of the program despite the petition for extension.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Systems Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Systems Engineering	Major

Program Type

Doctorate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Industrial/Systems Engineering

Credit Total

80

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

School of Engineering and Computer Science

301 Engineering Center ([map](#))

(248) 370-2217 • Fax (248) 370-4261

www.secs.oakland.edu

Coordinator:

Qian Zou

301D Engineering Center

(248) 370-2233

qzou@oakland.edu

Program Description

The Doctor of Philosophy in Systems Engineering degree program is designed for students who plan careers in industrial or governmental research and development laboratories or problem-oriented agencies, as well as in the academic field.

The field of engineering has evolved into a blending of disciplines that is well suited for dealing with such concerns as robotics and machine vision, electronic and communication systems, mechanics, material and manufacturing systems, fluid and thermal systems, dynamic systems and control, computer and microprocessor systems, industrial and production systems, and artificial intelligence and expert systems. The School of Engineering and Computer Science (SECS) is concentrating its efforts in these areas at the Ph.D. level.

Systems Approach

The field of systems engineering recognizes the inter-disciplinary nature of engineering, particularly in the areas of robotics, electronics, communications, mechanics, manufacturing systems, production systems, fluid and thermal systems, dynamic systems and control, computer hardware and software systems, software engineering, artificial intelligence and expert systems. The successful analysis and design of complex engineering systems in each of these areas involve two major perspectives. The first perspective, characterized by viewing individual elements of any phenomenon, process or system as being interrelated, with the form of the relationship influencing the behavior of the whole, requires that a systems approach be taken in the analysis, modeling or synthesis of the phenomenon, process or system under consideration. The second perspective is discipline-specific and requires a detailed understanding of the fundamental physical principles or concepts associated with the particular system under study.

A direct benefit of the above approach to problem solving is that it ties the contributions made to the fundamental knowledge in the field with the nuances and constraints imposed by the environment on the specific problem under investigation.

In other words, it makes the engineering research sensitive and relevant to practical applications. For example, consider the problem of computer vision. Research in this area will involve the fundamental principles of pattern recognition, digital signal processing, image enhancement, data communication, etc. However, a computer vision system that is associated with robotics in a classical or flexible assembly line manufacturing environment would be subjected to very different environmental conditions and constraints than would a computer vision system on an all-terrain, ground-based vehicle. Integration of such fundamental research, while recognizing the interaction with the environment, lends itself to a systems approach to problem solving.

It is this broad definition of engineering systems that forms the cornerstone of the Ph.D. in systems engineering program at Oakland University. The program is multi-disciplinary, drawing its strength and resources from the entire faculty of the School of Engineering and Computer Science.

Ph.D. Discipline Specializations

In keeping with the programs of study that are currently available through the Computer Science and Engineering Department, Electrical and Computer Engineering Department, Industrial and Systems Engineering Department and Mechanical Engineering Department, the student can follow any one of the following discipline specializations, depending upon his or her previous background and training.

Computer Systems

The work in this discipline may be focused on hardware and software system design, artificial intelligence and expert systems, computer communication systems including parallel and distributed computing, computer graphic systems, computer vision and multimedia systems, pattern recognition and data mining, and software engineering systems.

Control Engineering and Dynamic Systems

The work in this discipline may be focused on adaptive, intelligent, digital and optimal control systems, modeling and estimation of dynamic systems, robotic systems, fuzzy logic and neural network-based control systems.

Electrical Engineering Systems

The work in this discipline may be focused on digital image and signal processing, microelectronic circuits and systems including VLSI, instrumentation and measurement systems, electromagnetic systems, and analog and digital communication systems.

Industrial Engineering Systems

The work in this discipline may be focused on production systems, quality control, manufacturing systems, human factors, ergonomics, digital twins, engineering optimization, design decision making, computer integrated manufacturing, flexible manufacturing systems, graphics and CAD/CAM, Product Lifecycle Management (PLM), lean systems, artificial intelligence in manufacturing systems, scheduling and systems integration.

Manufacturing Processes and Systems

The work in this discipline may be focused on manufacturing processes including machining, metal forming, materials, automated inspection and evaluation systems, digital twins and collaborative robots in manufacturing.

Mechanical Engineering Systems

The work in this discipline may be focused on engineering mechanics systems involving acoustics, vibrations, classical/experimental mechanics and non-destructive testing; fluid and thermal energy systems, combustion and fuel cells, and energy transfer and conversion; tribology systems involving friction, lubrication and wear; and general manufacturing processes systems.

Program Delivery

Students can begin doctoral study on a part-time basis, availing themselves of late afternoon or evening courses while working full time in local industry. However, later phases of study and research will require full-time devotion to the program. Students must also fulfill a residency requirement.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Requirements for recommendations:
Three recommendation forms must be submitted directly by individuals who can evaluate the applicant's potential for graduate-level scientific research.
 - Statement of research objectives and goals.
 1. Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The hosting department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's overall GPA from last degree is at least 3.5 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in engineering or related profession.
 - To request a waiver, applicants must submit a **Request to Waive GMAT/GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
 - Admission to Ph.D. program is selective; applicants should have an M.S. degree GPA of 3.5 on a 4.0 scale or better for regular admission.
 - If the applicant's M.S. GPA is between 3.0 and 3.5 on a 4.0 scale, and the percentile score of the GRE Quantitative Reasoning section is 70% or better, admission with limited standing may be offered.
 - Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.
 - Normally a master's degree from an accredited institution is required for admission; however, students with outstanding undergraduate records may apply directly for admission to the doctoral programs.
 - The Ph.D. in systems engineering program is designed for students with academic backgrounds in engineering and computing. Students with backgrounds in mathematics or the physical sciences may also be admitted to the program, but they will be required to build up basic engineering/computing knowledge through relevant coursework.

- Special consideration may be given if a student does not meet the admission criteria listed above but demonstrates potential for academic excellence through research publications, patents, and awards, etc. In addition, the student must be recommended by an SECS faculty member.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate/graduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Doctor of Philosophy in Systems Engineering degree program is awarded upon satisfactory completion of 80 credits in an approved program of study. In addition to 56 credits of coursework beyond the bachelor's degree, students must also complete a minimum of 24 credits of dissertation research.

Course Requirements (80 credits)

Because of the importance of the two perspectives outlined above, the Ph.D. in systems engineering degree program has two major components: systems concepts and discipline-specific options. The courses in the first component provide the necessary knowledge to apply a systems approach to problem solving. The systems concepts required for the analysis and design of continuous systems are different from those required of discrete systems. Therefore, two tracks of courses have been identified to address the systems approach to these two different classes of systems. These two tracks (Continuous Systems and Discrete Systems) are shown below in the table. Every student in the Ph.D. in systems engineering degree program is required to elect one of the two tracks.

Once the systems approach to problem solving has been established, a student will study the area which relates to his/her research interest. These courses provide the discipline-specific component of the Ph.D. program. The student will concentrate on at least two of these areas within the options below, the selection of which will be the result of the concerted effort of the student and the advisory committee. Although a student is expected to specialize in either continuous systems or discrete systems, he/she may select courses from other areas as deemed appropriate. For example, a student interested in robotics would be required to take the continuous systems track and may elect the following three discipline-specific options: robotics, dynamic systems and microprocessors. Such options not only cross the boundaries of the two classes of systems but also include courses from various departments within the School of Engineering and Computer Science. This multidisciplinary approach is one of the unique features of the systems engineering Ph.D. program at Oakland University.

The completion of the Ph.D. requires a unified program of formal coursework, as specified above, and independent research directed and approved by the advisory committee. While the courses and examinations for a particular student are specified by the advisory committee, all programs are subject to the following general regulations.

a. Track Requirements (12 credits)

Select at least 12 credits from one of the two tracks shown below.

1. Continuous Systems

Required courses:

- **APM5441 Math Analysis For Engineers I Mathematical Analysis for Engineers I (4 credits)**
- **APM5442 Math Analysis For Engineers II Mathematical Analysis for Engineers II (4 credits)**

Choose one course from the following:

- **ECE5404 Linear Systems and Control Linear Systems and Control (4 credits)**
- **ME7200 Continuum Mechanics Continuum Mechanics (4 credits)**

2. Discrete Systems

Choose one course from the following:

- **ISE5469 Cmptr Sim Discrete Event Sys Computer Simulation of Discrete Event Systems (4 credits)**
- **SYS5469 Computer Simulation In Egr Computer Simulation in Engineering (4 credits)**

Choose one course from the following:

- **APM5441 Math Analysis For Engineers I Mathematical Analysis for Engineers I (4 credits)**
- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **MOR5554 Linear & Integer Optimization Linear and Integer Optimization (4 credits)**
- **MOR5555 Nonlinear Optimization Nonlinear Optimization (4 credits)**
- **STA5001 Stat Methods in Res and Prod Statistical Methods in Research and Production (4 credits)**
- **STA5002 Applied Linear Models I Applied Linear Models I (4 credits)**
- **STA5003 Applied Linear Models II Applied Linear Models II (4 credits)**

Choose one course from the following:

Any 5000-level or higher APM, MOR, MTH or STA course that has been approved by the student's Ph.D. Advisory Committee (4 credits)

b. Discipline Specific Options (12 credits)

Every student in the Ph.D. in systems engineering degree program is required to elect one of the above two tracks.

Once the systems approach to problem solving has been established, a student will study the area which relates to his/her research interest. These courses provide the discipline-specific component of the Ph.D. program. The student will concentrate on at least two of these areas within the option, the selection of which will be the result of the concerted effort of the student and the advisory committee. Although a student is expected to specialize in either continuous systems or discrete systems, he/she may select courses from other areas as deemed appropriate.

Continuous Systems

- Optimal Control
- Numerical Techniques
- Manufacturing Processes
- Dynamic Systems
- Robotics Systems and Controls
- Quality and Reliability
- Advanced Systems Theory
- Tribology
- Optimization and Decision Theory
- Microelectronics
- VLSI
- Analog and Digital Communications
- Energy Systems
- Thermal Energy Transport
- Signal and Image Processing
- Fluid Transport
- Instrumentation and Measurement
- Experimental Stress Analysis
- Electromagnetics
- Solid Mechanics and Materials
- Intelligent and Adaptive Control
- Dynamics
- Vibrations and Noise
- Digital Control
- Automotive Mechatronics

Discrete Systems

- Manufacturing Systems
- Industrial Systems

- Product Systems
- Quality Control
- Computer Communications
- Computer Integrated Manufacturing
- Artificial Intelligence
- Flexible Manufacturing Systems
- Software Engineering
- Graphics and CAD/CAM
- Theory of Computing Systems
- Computer Hardware Design
- Microprocessor Systems
- Software Systems
- Parallel Processing
- Pattern Recognition
- Data Mining
- Computer Vision
- Multimedia Systems

c. Previous master's coursework (maximum of 32 credits)

Up to 32 credits of master's coursework related to the Ph.D. dissertation research may be applied.

Dissertation (24 credits)

- **EGR8999 Doctoral Dissertation Research Doctoral Dissertation Research (1 TO 12 credits)**

Satisfactory academic progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic progress

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In the Ph.D. program, credit will not be awarded for courses in which a grade less than 3.0 is earned. All numerical grades earned are used in computing a student's grade-point average.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related program information

Plan of study

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Upon admission, doctoral students must develop a plan of study in consultation with the department chair. As soon as the student forms an advisory committee, the committee reviews and updates the plan of study then forwards it to the dean's office. The original plan of study must be submitted to the dean's office, and when approved, it will be forwarded to Oakland University Graduate School.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Initial Advising

After admission to the Ph.D. program, a student should consult with the Program Coordinator for any advice until formulation of an Advisory Committee.

Advisory Committee

As soon as possible after admission, but prior to earning 16 credits of coursework, students must form an advisory committee, which will direct and guide the progress of their program. Such a committee is composed of four faculty members, three of which must be from SECS and two of which must be tenure track faculty, with one designated as chair. Upon recommendation of the advisory committee, following successful completion of the Ph.D. comprehensive examination, one member from within or outside the university community may either be added to the committee or replace a member for the dissertation proposal and review.

The composition of the entire advisory committee must be approved by the Dean of the School of Engineering and Computer Science and Oakland University Graduate School.

Comprehensive Examination

Doctoral students in Systems Engineering are required to take a comprehensive examination preferably within the first two years of their doctoral studies but no later than four years after their admission to the Ph.D. program. The exact timing will be determined by their Ph.D. advisor. The students must schedule the exam at least two weeks in advance using the "Ph.D. Pass Form" that is available on the SECS website.

The comprehensive examination is designed to assess the student's analytical reasoning, theoretical understanding, and preparedness to do independent research. The comprehensive examination is composed of a written component and an oral component. The written component includes three parts. Two are discipline-specific selected by the student's advisory committee based on the individual student's coursework and research. The third examination area is in mathematics.

The students are encouraged to take the comprehensive examinations during the SECS centralized exam schedule which will be given twice per year, usually on the first, second and third Friday of October in fall semester, and the first, second and third Friday after the spring break in winter semester. The student must complete all three written examinations within three weeks. Upon passing the written exams, the student should complete the oral examination within two weeks after the last written examination. The oral portion of the exam will be given by the student's advisory committee plus any other faculty who have written a portion of the exams.

The student must obtain passing grades on both the written and oral portions to pass the comprehensive exam. To pass the written exam, the student must obtain an average grade of 70% among the three written exams and must have no more than one individual exam grade below 70% but not lower than 60%. A student who fails to pass the comprehensive examination may repeat it once during the next available exam date. If a student scores above 80% in any of the three subject exams, the committee may decide not to retest the student on that subject area. Students who pass the comprehensive exam but exhibit weakness in a specific area may be required by their advisory committee to complete additional coursework to address the deficiency. All comprehensive exams must be monitored in person by a doctoral advisory committee member or a representative of the committee and exams are to be taken on campus.

Dissertation Proposal

As soon as a candidate and the advisory committee chair agree on a specific research topic, the candidate must write a dissertation proposal. This document contains a formulation of the problem, the background work leading to the formulation and a plan for the subsequent research. Candidates must orally present the proposal to their advisory committees and any other interested faculty, at which time the committee may question the preparedness of the student to carry out the research.

Research Credits

Students who have advisory committee approval of their dissertation proposals and are conducting research should register for EGR 8999. At least 24 research credits are required of all doctoral candidates. However, merely amassing credits does not indicate satisfactory progress toward or completion of the dissertation. These judgments are made by the advisory committee. The dissertation is judged completed upon successful completion of the final examination and acceptance of the dissertation by Oakland University Graduate School.

Dissertation

Each candidate will submit a dissertation to the advisory committee. The dissertation must be the candidate's own work and must constitute a contribution to knowledge in his/her field of endeavor. The completed dissertation must conform to university standards (see **Thesis and Dissertation**).

Residence

Writing a doctoral dissertation requires a full commitment to research. Such research cannot be effectively pursued in an environment which places research in a secondary role. Doctoral students are required to be full-time students for at least one year of their active dissertation research. The doctoral student should arrange such a period of residency by 1) registering for at least 8 credits of doctoral dissertation research for two consecutive semesters and 2) making a commitment, in a statement addressed to his/her advisory committee, to a program of full-time (at least 20 hours per week) research.

The above represents the normal residency requirement. However, if the present occupation of the candidate (e.g., industrial research or teaching) is conducive to the intended research, there is an alternative method to fulfill the residency requirement. To arrange for the alternative residency, the candidate must apply in writing to his/her advisory committee at the time of the dissertation proposal review. The committee must be furnished with a written statement by the candidate's employer confirming that the dissertation research constitutes a major portion of the job assignment. If the advisory committee grants permission to pursue this option, the student must enroll in doctoral dissertation research (8 credits maximum) for at least two consecutive semesters.

Final Examination

Each Ph.D. candidate must satisfactorily defend the dissertation in a final oral examination administered by the advisory committee. The examination is taken after the advisory committee certifies that the dissertation is ready for final review. At the committee's option, one re-examination may be permitted if a candidate fails to pass the final examination.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time Limit

The maximum time limit for completing a Ph.D. degree is no more than ten years from the time of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first-course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

If a student is deemed inactive, he or she may be dropped out of the program despite the petition for extension.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Electrical and Computer Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Electrical and Computer Engineering	Major

Program Type

Doctorate

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

80

Delivery Method Required

In Person

Summer
Semesters
0

Requirements

Program Requirements

Department of Electrical and Computer Engineering

446 Engineering Center ([map](#))

(248) 370-2177 • Fax (248) 370-4633

www.oakland.edu/ece/

Coordinator

Qian Zou

301D Engineering Center

(248) 370-2233

qzou@oakland.edu

Program Description

The Doctor of Philosophy in Electrical and Computer Engineering degree is for students who plan careers in industrial or governmental research and development laboratories or problem-oriented agencies, as well as in the academic fields related to electrical and computer engineering.

The field of Electrical and Computer Engineering (ECE) is very broad, including areas as diverse as applied electromagnetics, autonomous navigation, bioengineering, communications, computer architecture and hardware design, control systems, digital signal processing, digital image processing, electronic materials and devices, micro- and nano-electronics, pattern recognition, power systems and robotics. The Department of Electrical and Computer Engineering is concentrating its efforts in these and other related areas at the Ph.D. level.

Program Delivery

Students can begin doctoral study on a part-time basis, availing themselves of late afternoon or evening courses while working full time in local industry. However, later phases of study and research will require full-time devotion to the program. Students must also fulfill a residency requirement.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Recommendation for Graduate Admission form: Three recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant. These recommendations form an important part of the admission credentials.
 - Statement of research objectives and goals. Students must make an initial selection for a research area: communications, computer engineering, controls, electromagnetics, electronics, energy, mechatronics and robotics, signal processing, or other.
 1. Applicants must submit official scores from the Graduate Record Examination (GRE) if they graduated from an institution not accredited by a regional accrediting agency of the USA. The department may choose to waive the GRE requirement if at least one of the following special circumstances is met:
 - Applicant's overall GPA from last degree is at least 3.5 on a 4.0 scale.
 - Applicant has worked in the USA for at least two years in the engineering profession.

- To request a waiver, applicants must submit a **Request to Waive GRE** form to the Graduate School as part of the application packet. The request for waiver is subject to the approval of the Graduate Admissions Committee
- Admission to Ph.D. program is selective; applicants should have an M.S. degree GPA of 3.5 on a 4.0 scale or better for regular admission.
- If the applicant's M.S. GPA is between 3.0 and 3.5 on a 4.0 scale, and the percentile score of the GRE Quantitative Reasoning section is 70% or better, admission with limited standing may be offered.
- Applicants from institutions with which Oakland University has an articulation agreement containing alternative admission criteria will be admitted according to the criteria in that agreement.
- Normally a master's degree from an accredited institution is required for admission; however, students with outstanding undergraduate records may apply directly for admission to the doctoral program.
- The Ph.D. in electrical and computer engineering degree program is primarily designed for students with academic backgrounds in either electrical engineering or computer engineering. Students with backgrounds in other engineering disciplines, computer science, mathematics, or the physical sciences may also be admitted to the program, but they may be required to augment their basic electrical and computer engineering knowledge through relevant coursework.
- Special consideration may be given if a student does not meet the admission criteria listed above but demonstrates potential for academic excellence through research publications, patents, and awards, etc. The student must be recommended by a SECS faculty member.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their academic records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Degree Requirements

The Doctor of Philosophy in Electrical and Computer Engineering degree is awarded upon satisfactory completion of 80 credits in an approved program of study. In addition to 56 credits of coursework beyond the bachelor's degree, students must also complete a minimum of 24 credits of dissertation research.

At least 56 credits must be earned for coursework beyond the bachelor's degree (exclusive of dissertation). A full-time load is 8 to 12 credits per semester.

Students who have previously earned a master's degree from Oakland University or another regionally-accredited institution may reduce the 56 credits of coursework required for the doctoral degree by up to 32 credits. To be considered for a reduction in required doctoral credits, students must submit a PhD PASS form. The chair of the doctoral advisory committee (or the department chair prior to selection of the doctoral advisory committee chair) will evaluate the student's prior master's degree work and may reduce the required Ph.D. credits based on the master's coursework. The PASS form needs to be approved by the Dean's office and be on file in Oakland University Graduate School by the end of the first year of doctoral study. All candidates must complete at least 24 credits of additional coursework exclusively at Oakland University.

Course Requirements (80 credits)

a. Mathematics courses (8 credits)

Choose one course from the following:

- **APM5441 Math Analysis For Engineers I Mathematical Analysis for Engineers I (4 credits)**
- **APM5442 Math Analysis For Engineers II Mathematical Analysis for Engineers II (4 credits)**
- **APM5663 App Mth: Discrete Methods I Applied Mathematics: Discrete Methods I (4 credits)**
- **APM5664 App. Math: Discrete Methods II Applied Mathematics: Discrete Methods II (4 credits)**
- **APM5665 Differential Geometry Differential Geometry (4 credits)**
- **APM5610 Adv Data Structures/Algorithms Algorithms and Complexity (4 credits)**
- **APM5669 Graph Theory & Applications Graph Theory and Applications (4 credits)**
- **APM5777 Computer Algebra Computer Algebra (4 credits)**
- **APM6558 Math Model in Ind.: Continuous Mathematical Modeling in Industry: Continuous Models (4 credits)**
- With approval of the student's advisory committee, the other 4 credits can be taken from graduate level mathematics courses not listed or from the list above.

b. Electives (16 credits)

The remaining coursework related to a student's research area or other areas of interest should be completed according to the Plan of Study, approved by the student's Advisory Committee.

c. Previous master's coursework (maximum of 32 credits)

- Up to 32 credits of master's coursework related to the Ph.D. dissertation research may be applied.

Dissertation (24 credits)

- **ECE8999 Doctoral Dissertation Research Doctoral Dissertation Research (1 TO 12 credits)**

Satisfactory Academic Progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **Good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: In the Ph.D. program, credit will not be awarded for courses in which a grade less than 3.0 is earned. All numerical grades earned are used in computing a student's grade-point average.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Initial Advising

After admission to the Ph.D. program, a student should consult with their academic advisor or the Graduate Student Coordinator for any advice until formulation of an Advisory Committee.

Plan of Study

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Upon admission, doctoral students must develop a plan of study in consultation with the department chair. As soon as the student forms an advisory committee, the committee reviews and updates the plan of study then forwards it to the dean's office. The original plan of study must be submitted to the dean's office, and when approved, it will be forwarded to the Oakland University Graduate School office.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advisory Committee

As soon as possible after admission, but prior to earning 16 credits of coursework, students must form a Doctoral Advisory Committee (DAC), which will direct and guide the progress of their program. Such a committee is composed of four faculty members, specified as follows:

- Two tenure track faculty members from the Electrical and Computer Engineering Department nominated by the student, one designated as the DAC Chair.
- One faculty member who is from any department within the School of Engineering and Computer Science, or an expert from outside of Oakland University (who must have a Ph.D. or equivalent degree)
- One Oakland University faculty member outside of the School of Engineering and Computer Science.

Upon recommendation of the advisory committee, following successful completion of the Ph.D. comprehensive examination, one member from within or outside the university community may be added to the committee for the dissertation proposal review.

Exceptions can be petitioned to both the Associate Dean and chair of the Department of Electrical and Computer Engineering for approval.

The composition of the entire advisory committee must be approved by the Dean of the School of Engineering and Computer Science and the Oakland University Graduate School.

Comprehensive Examination

Doctoral students in Electrical and Computer Engineering are required to take a comprehensive examination preferably within the first two years of their doctoral studies but no later than four years after their admission to the Ph.D. program. The exact timing will be determined by their Ph.D. DAC Chair. The students must schedule the exam at least two weeks in advance using the "Ph.D. Pass Form" that is available on the SECS website.

The comprehensive examination is designed to assess the student's analytical reasoning, theoretical understanding, and preparedness to do independent research. The comprehensive examination is composed of a written component and an oral component. The written component includes three parts. Two are discipline-specific selected by the student's advisory committee based on the individual student's coursework and research. A committee member can only write one exam. The third examination area is in mathematics.

The students are encouraged to take the comprehensive examinations during the SECS centralized exam schedule which will be given twice per year, usually on the first, second and third Friday of October in fall semester, and the first, second and third Friday after the spring break in winter semester. The student must complete all three written examinations within three weeks. Upon passing the written exams, the student should complete the oral examination within two weeks after the last written examination. The oral portion of the exam will be given by the student's advisory committee plus any other faculty who have written a portion of the exams.

The student must obtain passing grades on both the written and oral portions to pass the comprehensive exam. To pass the written exam, the student must obtain an average grade of 70% among the three written exams and must have no more than one individual exam grade below 70% but not lower than 60%. A student who fails to pass the comprehensive examination may repeat it once during the next available exam date. If a student scores above 80% in any of the three subject exams, the committee may decide not to retest the student on that subject area. Students who pass the comprehensive exam but exhibit weakness in a specific area may be required by their advisory committee to complete additional coursework to address the deficiency. All comprehensive exams must be monitored in person by a doctoral advisory committee member or a representative of the committee and exams are to be taken on campus.

Dissertation Proposal

As soon as a candidate and the advisory committee chair agree on a specific research topic, the candidate must write a dissertation proposal. This document contains a formulation of the problem, the background work leading to the formulation and a plan for the subsequent research. Candidates must orally present the proposal to their advisory committees and any other interested faculty, at which time the committee may question the preparedness of the student to carry out the research.

Research Credits

Students who have advisory committee approval of their dissertation proposals and are conducting research should register for **ECE8999 Doctoral Dissertation Research**. At least 24 research credits are required of all doctoral candidates. However, merely amassing credits does not indicate satisfactory progress toward or completion of the dissertation. These judgments are made by the advisory committee. The dissertation is judged completed upon successful completion of the final examination and acceptance of the dissertation by Oakland University Graduate School.

Dissertation

Each candidate will submit a dissertation to the advisory committee. The dissertation must be the candidate's own work and must constitute a contribution to knowledge in his/her field of endeavor. The completed dissertation must conform to university standards (see **Thesis and Dissertation**).

Residence

Writing a doctoral dissertation requires a full commitment to research. Such research cannot be effectively pursued in an environment which places research in a secondary role. Doctoral students are required to be full-time students for at least one year of their active dissertation research. The doctoral student should arrange such a period of residency by 1) registering for at least 8 credits of doctoral dissertation research for two consecutive semesters and 2) making a commitment, in a statement addressed to his/her advisory committee, to a program of full-time research (at least 20 hours per week).

The above represents the normal residency requirement. However, if the present occupation of the candidate (e.g., industrial research or teaching) is conducive to the intended research, there is an alternative method to fulfill the residency requirement. To arrange for the alternative residency, the candidate must apply in writing to his/her advisory committee at the time of the dissertation proposal review. The committee must be furnished with a written statement by the candidate's employer confirming that the dissertation research constitutes a major portion of the job assignment. If the advisory committee grants permission to pursue this option, the student must enroll in doctoral dissertation research (8 credits maximum) for at least two consecutive semesters.

Final examination

Each Ph.D. candidate must satisfactorily defend the dissertation in a final oral examination administered by the advisory committee. The examination is taken after the advisory committee certifies that the dissertation is ready for final review. At the committee's option, one reexamination may be permitted if a candidate fails to pass the final examination.

Continuous enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time limits

The maximum time limit for completing a Ph.D. degree is no more than ten years from the time of the first course enrollment in the doctoral program.

The Time Limit for Completing a Ph.D. Degree policy requires a student to achieve candidacy within six years from the first course enrollment in the doctoral program. After being advanced to candidacy, a student is expected to complete the remaining degree requirements within four years (including the dissertation defense).

If a student is deemed inactive, he or she may be dropped out of the program despite the petition for extension.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Human Movement Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Human Movement Science	Major

Program Type

Doctorate

College/School

School of Health Sciences (HS)

Department(s)

Human Movement Science

Credit Total	Delivery Method	Required Summer Semesters
80	Fully Online	0

Requirements

Program Requirements

Department of Human Movement Science

433 Meadow Brook Rd ([map](#))

(248) 370-4041 • Fax (248) 364-8660

www.oakland.edu/shs/pt

Coordinator:

Kristine A. Thompson, Professor

kathomps@oakland.edu

Program Description

The Doctor of Philosophy (Ph.D.) degree in Human Movement Sciences is designed for physical therapists, exercise science and movement science professionals interested in obtaining the knowledge and skills to produce relevant research in human movement science.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- February 15 (early) April 15 (regular) and July 15 (late) for fall semester
- October 1 (early) and November 15 (regular) for winter semester
- March 1 (regular) for summer semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. **Additional department application requirements**
 - Requirements for Recommendations:
Two recommendations must be from faculty members or professionals in the field who can evaluate the scholarly achievement and potential of the applicant.
 - Applicants must have earned a minimum of a Bachelor's degree in physical therapy, exercise science, movement science, or related degree from a regionally accredited institution or proof of a U.S. equivalent degree for foreign educated applicants.
 - Applicants should have a minimum overall undergraduate grade point average of 3.0. (B)
 - Professional vitae or resume
 - One-page narrative goal statement outlining academic and professional goals as well as a detailed description of research plans including a potential dissertation topic and a HMS faculty committee chair
 - Applicants who meet admission requirements may be asked to meet with members of the Admissions Committee to explore potential dissertation topics and a HMS faculty committee chair

Applicants with an undergraduate GPA less than 3.0 (B) with the appropriate academic background and strong letters of recommendation may be considered for admission with limited standing. Applicants who qualify for this admission status must complete a minimum of 8 credits of graduate-level work, with a GPA of 3.0 (B) or above within the first year of their program, to be advanced to full admission.

Admission Review and Assessment

A departmental admissions committee with representatives from the Physical Therapy program and the Exercise Science program will review and make recommendations for admission. Admissions committee members will assist interested applicants to meet with potential faculty who align with the applicant's research interests. Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate and graduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Academic advising

Students who are considering applying to the Doctor of Philosophy program may contact the program coordinator to review prerequisite and application requirements. Upon acceptance to the program, students are assigned a faculty adviser.

Degree requirements

The Doctor of Philosophy degree in human movement science requires completion of 80 credits beyond a bachelor's degree. Accepted applicants who have previously earned a qualified master's degree from Oakland University or another regionally-accredited university may be permitted to reduce the credits required for the doctoral degree up to 32 credits. Accepted applicants who have earned a qualified Doctor of Physical Therapy degree from Oakland University or another regionally-accredited university may be permitted to reduce the credits required for the doctoral degree up to 36 credits.

Accepted applicants may be permitted to reduce credits through the credit for prior learning process. Credit for prior learning will be considered for accepted applicants who have completed Specialist Certification through the American Board of Physical Therapy Specialists or have achieved Certification as an Exercise Physiologist through the American College of Sports Medicine. Documentation of the certification will be reviewed by the PhD in Human Movement Science Admission Committee. Students may receive up to 8 credits for prior learning for the certification. Credits for prior learning will be awarded for elective coursework. Students cannot reduce the total number of credits for the degree with previous coursework. Students cannot reduce the total number of credits for the degree with previous degrees and/or credit for prior learning by more than 38 credits. Credits for prior learning will require review and approval by the program coordinator and the Graduate School.

With approval of the program coordinator and The Graduate School, accepted applicants who have previously earned credits as part of one of the Oakland University post-professional graduate certificates in the School of Health Sciences may apply those credits to the degree. The graduate certificate credits must be earned within the time limit for completing the doctoral degree.

Course requirements

Students will be required to take the core courses, and complete additional coursework, which may include elective credits, a graduate certificate, research concentration, and/or the approved set of related coursework.

a. Core requirements

- **PT8806 Methods Teach Learn Hlth Sci Methods of Teaching and Learning in Health Sciences (3 credits)**
- **or PT8807 Educ Princ/Rehab Profess Educational Principles for Rehabilitation Professionals (4 credits)**
- **PT9000 Advanced Scientific Inquiry Advanced Scientific Inquiry (4 credits)**

- **PT9010 Analysis of Clinical Findings** Analysis of Clinical Findings (4 credits)
- **or PH5410 Biostatistical Method/Pub Heal** Biostatistical Method/Pub Heal (3 credits) and PH 5411 - Biostatistical Methods/PH Lab (1 credit)

or PSY5101 Adv Stats for Psy/Behav Res I PSY 5101 Advanced Statistics for Psychological and Behavioral Research I (4 credits)

or PSY5102 Adv Stats for Psy/Behav Res II PSY 5102 Advanced Statistics for Psychological and Behavioral Research II (4 credits)

or NRS5302 Statistics in Adv NRS Practice NRS 5302 Statistics in Advanced Nursing Practice (3 credits)

or NRS9202 Adv Hlth Care Stat NRS 9202 Advanced Health Care Statistics (4 credits)

or a graduate level statistics course that is at least 3 credits and is approved by the PhD Program Coordinator

- **PT9940 Professional Seminar** Professional Seminar (4 credits)
- **PT9999 Dissertation Research** Dissertation Research (16 credits)
- The minimum number of PT 9999 Dissertation Research credits for the degree is 16 credits.

b. Elective coursework (12-52 credits)

Elective coursework will be determined by the program coordinator and are dependent on the student's previous degree:

- Students entering the program without a master's or doctoral degree are required to take a minimum of 48 credits; or
- Students holding a master's degree are required to take a minimum of 16 credits; or
- Students holding a doctoral degree are required to take a minimum of 12 credits.

1) Graduate Certificates

A graduate certificate program may be awarded concurrently with the doctoral degree. Examples of graduate certificate programs are listed below. Other appropriate graduate certificate programs offered through the School of Health Sciences or the university may be approved by the program coordinator.

- **Corporate and Worksite Wellness, Graduate Certificate**
- **Exercise Science, Graduate Certificate**
- **Oncology Rehabilitation, Graduate Certificate**
- **Orthopedic Manual Physical Therapy, Graduate Certificate**
- **Teaching and Learning for Health Science Professionals, Graduate Certificate**

- **Clinical Exercise Science, Graduate Certificate ***

* Student must complete the appropriate prerequisites.

2) Research concentration

The research concentration includes a combination of research courses, independent studies, and projects worth a minimum of 12 credits in an area of interest. A plan of study must be approved by the program coordinator.

3) Related coursework

Related coursework will be counted in the following categories:

- Approved transfer credits or related coursework within the school or university that supports the student's plan of study and/or research focus approved by the program coordinator.
- A master's in exercise science degree, completed as part of the doctoral program, may be awarded concurrently with the doctoral degree.

Satisfactory academic progress

Satisfactory academic progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor SAP for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. *Department requirements:* An overall GPA of 3.0 (B) or higher for all coursework taken in the professional program is required for graduation, and no grade below 2.7 (B-) may be applied toward this degree. For courses graded Satisfactory/Unsatisfactory (S/U), no coursework graded Unsatisfactory (U) may be applied to this degree.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study

Related program information

Plan of study

All accepted applicants, in consultation with the program coordinator, must develop a plan of study that details specific courses the students will use to satisfy their degree program requirements. The plan of study must be approved by the program coordinator and submitted by the student to the Oakland University Graduate School.

Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. **A Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Doctoral Committee

The student, in consultation with the dissertation chair and the program coordinator, will form a doctoral committee by the end of the first year of study. The committee will consist of a minimum of three members. At least two members will be from the School of Health Sciences, with at least one member from the Department of Human Movement Science, who is a tenured or a tenure track faculty member, and who will serve as chair of the dissertation committee.

Comprehensive examination

The comprehensive examination is competency-based and involves the successful completion, as determined by the student's dissertation committee, of the following activities and products:

The comprehensive examination is competency-based and involves the successful completion, as determined by the student's dissertation committee, of the following activities and products:

1. Research proposal and presentation: The submission and presentation of a formal research proposal for the dissertation.
2. Grant application: The development and submission of a competitive internal or external research grant proposal.
3. Teaching portfolio: A portfolio consisting of a teaching philosophy and artifacts that reflect accomplishments teaching academic, clinical, and/or professional development course(s).

Dissertation

A student writes a dissertation, following Graduate School policies and procedures, based on original research. Under the guidance and approval of the dissertation committee, a student may elect to write either a traditional five-chapter dissertation or use a format consisting of two to three publishable papers, with introduction, integrative, and conclusion chapters.

Continuous enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary, or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met, and the dissertation is submitted to Oakland University Graduate School.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans

Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Time limits

All doctoral students are expected to complete their degree **within the time limit established by the university**. Students who are deemed inactive may be dropped from the program, although they may petition for reinstatement.

Transfer credit

The Oakland University transfer credit policy will be followed.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Nursing

General

Program Level	Degree Designation	Program Title	Field of Study Type
PH	PhD	Nursing	Major

Program Type

Doctorate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

80

Delivery Method Required

100% Online

Summer Semesters

3

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))

(248) 370-8733 • Fax (248) 364-8740

www.oakland.edu/nursing

Program director:

Ron Piscotty

2008 Human Health Building

(248) 364-8773

piscotty@oakland.edu

Program Description

The Doctor of Philosophy (Ph.D.) in nursing program is designed to advance researchers and scholars in the provision of leadership to the profession and to the discipline of nursing. Students are prepared to become researchers and to assume roles as transformational leaders in both the academic setting and the health care delivery sector. This completely online program cultivates nurse scientists to develop, test, and implement innovation in health care quality and health outcomes with a global perspective. In addition, it will facilitate the mentoring of the next generation of nurse scientists through the process of methodical inquiry by adept researchers. A combination of conceptual approaches, challenging interactive seminar discussions, and work with active researchers provide a stimulating environment for scholarly development. Graduates of this program will serve as leaders in the promotion and application of nursing and multidisciplinary research and knowledge.

Program Delivery

The Doctor of Philosophy in Nursing degree is a fully online program. As such, all courses in the Ph.D. plan of study are delivered online; however, courses may require online synchronous and/or distance-learning activities.

Doctor of Philosophy in Nursing Program Objectives

Building on the foundation of a bachelor's program, a master's program, or a Doctorate in Nursing Practice program, the Ph.D. program will prepare graduates who:

- Will demonstrate knowledge of the research process that contributes to the discipline of nursing, with specific focus on the program concentrations of healthcare quality and health outcomes with a global perspective.
- Will demonstrate expertise in the research process by contributing basic and applied knowledge to guide health care delivery.
- Will obtain positions in academia and/or as nurse leaders in key health care areas in the state of Michigan, nationally, and globally.

Admission Terms and Application Deadlines

BSN prepared applicants will be admitted for the winter semester. MSN and DNP prepared applicants will enter the program in the fall semester. Before an applicant's file can be reviewed for full program admission, all application documents must be uploaded in the **NursingCAS** system by the semester deadlines listed below.

The application for BSN-prepared applicants is due December 1st for admission to the subsequent Winter semester. The application for MSN and DNP-prepared applicants is due August 15th, for admission to the subsequent Fall semester. (See additional requirements below)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and any additional department requirements by the published application deadlines:

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

Additional department application requirements

- Applicants for admission to the Doctor of Philosophy in Nursing program must have completed a minimum of a Bachelor of Science in Nursing (BSN) degree or international equivalent.
- Have an overall cumulative grade point average of B of (3.0) or higher at both the undergraduate and graduate levels.
- Submit official transcripts for all post-secondary educational institutions from which the applicant earned a degree (beginning with the first baccalaureate) and for all enrollment in graduate-level coursework beyond the bachelor's degree must be **submitted to NursingCAS**.

International university transcripts must be evaluated by a professional credential evaluation service and submitted to **NursingCAS**.

- Submit a written personal goal statement not to exceed 500 words. The personal goal statement should focus on why the applicant is pursuing a Ph.D. in nursing and how this degree will advance career goals. Additionally, the statement should highlight the applicant's specific topic/area of research and the identification of at least one faculty whose area of research might match the applicant's topic/area of research interest.
- Submit two professional letters of recommendation

International Students

- **International students** are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission review and assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with member(s) of the School of Nursing faculty. The interview will be scheduled after all application materials have been submitted. Prior to starting the program, MSN and DNP prepared students are required to provide evidence of successful completion of a graduate-level statistics course (min 3 credits).

Degree Requirements

The Doctor of Philosophy in Nursing degree requires Registered Nurses who graduated with a BSN, MSN, or DNP to complete a maximum of 80 credits. Up to 20 graduate credits might be counted towards the total number of 80 credits for those applicants entering the program with MSN and DNP preparation, per Graduate School Policy. Up to 32 graduate credits might be counted towards the total number of 80 credits for those applicants entering the program with DNP preparation, per Graduate School Policy. Therefore, for MSN entry, the typical program is 60 credits and for DNP entry, the typical program is 48 credits.

In the PhD program, graduate credit will not be awarded for courses in which a grade less than B (3.0) is earned. All numerical grades earned are used in computing a student's grade point average.

Course Requirements

Prior to starting the program, MSN prepared students are required to provide evidence of successful completion of a graduate level statistics course (min 3 credits). DNP prepared students are required

to provide evidence of successful completion of a graduate level Health Informatics course (min 3 credits) and a graduate level Health Policy course (min 3 credits). Although these courses for the DNP prepared student are not required to begin the program, they are required to complete the program. Students must contact the School of Nursing Academic Advising Office and supply information needed to determine course equivalency. Equivalency will be reviewed and approved by the PhD program director.

Curriculum Overview

For BSN entry the program is 80 credits.

For MSN entry the program is typically 60 credits (*).

For DNP entry the program is typically 48 credits (+).

Philosophy of Science/Theory (8 credits)

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice** (4 credits)
- **NRS9201 Phil Found Adv Thry Dev Philosophic Foundations of Advanced Theory** (4 credits) **

Research (23 credits)

- **NRS5302 Statistics in Adv NRS Practice Statistics in Advanced Nursing Practice** (3 credits)
- **NRS7398 Research Practicum I** Graduate Research Practicum I (2 credits)
- **NRS7399 Research Practicum II** Graduate Research Practicum II (3 Credits)
- **NRS9202 Adv Hlth Care Stat Advanced Health Care Statistics** (4 credits) **
- **NRS9312 Quan Research Methods Quantitative Research Methods** (3 credits) **
- **NRS9311 Qual Research Methods Qualitative Research Methods** (3 credits) **
- **NRS9315 Measure, Design, and Big Data Measurement, Design, and Big Data** (3 credits) **
- **NRS9696 Dissertation Proposal Synthesi Dissertation Proposal Synthesis** (1 to 2 credits) *

Professionalism (17 credits)

- **NRS6712 Curriculum/Instruction Nrs Ed Curriculum and Instruction in Nursing Education** (3 credits)
- **NRS6722 Evaluation in NRS Education Evaluation in Nursing Education** (3 credits)
- **NRS8221 Health System Policy Health System Policy** (3 credits) *
- **NRS8241 Nrs/Hlthcare Informatics Ldrsh Nursing and Healthcare Informatics Leadership** (3 credits) *

- **NRS8782 Grant Writing Grant Writing (2 credits) ****
- **NRS8382 Health Care Economics Health Care Economics (3 credits) ****

Nursing Science Topical Seminars (6 credits)

- **NRS9911 Health Care Quality Health Care Quality (3 credits) ****
- **NRS9913 Adv of Health Outcomes Advancement of Health Outcomes (3 credits) ****

Cognate Minor (minimum of 8 credits)

- **Two (or more) cognate courses (8 credits) ****

Comprehensive/Qualifying Examination

The purpose of the examination is to determine the readiness of a pre-candidate to perform dissertation research. Students will sit for the comprehensive qualifying examination at the discretion of their chair after completing course work. The comprehensive qualifying examination will have a written and an oral component. Following successful completion of the written exam, the student takes the oral component. A student achieves candidacy when all committee members reach a majority agreement regarding the student's performance on the oral examination.

Dissertation

- **NRS9999 Dissertation Research Dissertation Research (12+, 16*, 18 credits)**

PhD Immersion Week

Every student admitted to the Ph.D. program will be required to participate in person or remotely each year for "PhD Immersion Week."

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the

academic program. The student must also maintain a minimum semester and overall GPA of B (3.0), as well as a B (3.0) or above in all courses.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

School of Nursing requirements: Students are required to follow university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the School of Nursing, Doctor of Philosophy in Nursing Student Handbook.

Students are expected to earn a grade of B (3.0) or above in each course in the PhD program. In courses graded Satisfactory/Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. In courses graded Satisfactorily Progressing (SP)/Unsatisfactorily Progressing (NP), students are expected to earn a course grade of satisfactorily progressing (SP). Students who are not making satisfactory progress (i.e., <3.0, U, NP) in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Graduate students who are not in good standing in the School of Nursing for any reason are subject to probation and/or dismissal from further graduate study.

Continuous Enrollment

The continuous enrollment policy for doctoral students requires continuous registration of graduate students for at least 1 credit each semester in the academic year to maintain an active graduate student status. This includes semesters in which the comprehensive, preliminary or qualifying examination is taken, defense, and each subsequent term (fall and winter) until the degree requirements are met and the dissertation or project is submitted to Oakland University Graduate School.

Students are required to submit a leave of absence form if extenuating circumstances arise where the student has to take a semester off. Failure to submit this form may result in a loss of admission status.

Some agency and graduate assistantship eligibility may have course-load requirements that exceed the minimum registration requirements of the Continuous Enrollment Policy (e.g., Veterans Affairs, Immigration and Naturalization for international students, and federal financial aid programs). Therefore, it is the student's

responsibility to register for the appropriate number of credits that are required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Related Program Information

Plan of Study

All accepted applicants, in consultation with the Ph.D. program director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be signed by the program director and student. Students are responsible for requirements and policies stated in the **School of Nursing, Doctor of Philosophy in Nursing Student Handbook**, and each course syllabus.

Advising

Every student admitted to the Ph.D. program is assigned an **academic adviser** and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Accounting

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Accounting	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Accounting & Finance

Credit Total

15

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Faculty Director:

Donna K. Free

412 Elliott Hall

(248) 370-3281

free@oakland.edu

Program Description

Application Requirements

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**

2. Additional department application requirements

- Curriculum Vitae or Resumé
- Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
- Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to the Post-Master's Graduate Certificate in Accounting program is selective. In making admission recommendations to the post-master's graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate requirements

Course Requirements (15 credits)

ACC5120 Managerial Accounting Systems Managerial Accounting Systems (3 credits)

(Students who have completed ACC 512 or its equivalent will be required to take an additional course from the accounting elective list below to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 credits) from the list below. Note that some courses require additional prerequisites which are evaluated by the MAcc Faculty Coordinator.

- **ACC5050 Business Law for Acctg & Finan Business Law for Accounting & Finance (3 credits)**
- **ACC5150 Principles of Taxation Introduction to Taxation (3 credits)**
- **ACC5180 Accounting Information Systems Accounting Information Systems: Planning and Analysis (3 credits)**

- **ACC5210 Income Tax II Income Tax II: US Taxation of Alternative Business Structures (3 credits)**
- **ACC5220 Auditing Auditing (3 credits)**
- **ACC5240 Government/Not-for-Profit Acct Government and Not-for-Profit Accounting (3 credits)**
- **ACC5260 AIS: Audit and Control Accounting Information Systems: Audit and Control (3 credits)**
- **ACC 5330 - Accounting Information Systems: Analysis and Design (3 credits)**
- **ACC6000 Financial Reporting & Analysis Financial Reporting and Analysis (3 credits)**
- **ACC6170 Int'l Fin Actg Standards & Rptg International Financial Accounting Standards and Reporting (3 credits)**
- **ACC6200 Cost Management Cost Management (3 credits)**
- **ACC6220 Audit Analytics Audit Analytics (3 credits)**
- **ACC6250 Fed Income Taxation for Bus Federal Income Taxation for Business (3 credits)**
- **ACC6310 Fraud Examination Fraud Examination (3 credits)**
- **ACC6500 Professional Issues in Acc Professional Issues in Accounting (3 credits)**
- **ACC6900 Special Topics in Accounting Special Topics in Accounting (3 credits)**
- **ACC6970 Independent Study/Accounting Independent Study in Accounting (1 TO 3 credits)**
- **ACC6995 Prof Accounting Research Professional Accounting Research (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Post-master's Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

General Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	General Management	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))
(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull
238B Elliott Hall
(248) 370-3287
trumbull@oakland.edu

Program Description

The Post-Master's Graduate Certificate in General Management program is a 15-credit course of study designed for individuals with a graduate degree in a non-business field who seek core business knowledge. The program emphasizes coursework that covers the major disciplines within the field of business. Upon completion, students will have general knowledge of common business practices and corporate procedures.

Completing the prescribed course of study leads to a graduate certificate granted by the university. Coursework completed within this program can be transferred to a graduate business degree program if the student wishes to continue. This transfer must be completed before the graduate certificate is issued.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - College course in calculus and statistics
 - Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements (15 credits)

Choose five courses from the following (all course prerequisites will apply):

- **ACC5110 Financial Accounting Financial Accounting (3 credits)**
- **ACC5120 Managerial Accounting Systems Managerial Accounting Systems (3 credits)**

- **ECN5210 Economics for Managers Economics for Managers (3 credits)**
- **FIN5330 Financial Management Financial Management (3 credits)**
- **MGT5260 International Business International Business (3 credits)**
- **MGT5500 Legal Environment of Business Legal Environment of Business (3 credits)**
- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**
- **MKT5600 Marketing Management Marketing Management (3 credits)**
- **ORG5300 Organizational Behavior Organizational Behavior (3 credits)**
- **POM5210 Operations Management Operations Management (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Graduate Study and Lifelong Learning.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Post-Master's Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

International Business

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	International Business	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))
(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull
238B Elliott Hall
(248) 370-3287
trumbull@oakland.edu

A post-master's graduate certificate for students with an MBA degree or equivalent to an MBA degree

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester
- **International Applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
 - Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements

MGT5260 International Business International Business (3 credits)

(Students who have completed MGT5260 International Business or its equivalent will be required to take an additional course from the international business elective list above to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 credits) from the following:

- **ACC6170 Int'l Fin Actg Stndards & Rptg International Financial Accounting Standards and Reporting (3 credits)**
- **ECN6730 International Trade & Finance International Trade and Finance (3 credits)**

- **FIN5700 International Financial Mgt International Financial Management (3 credits)**
- **MGT6901 Special Topics: Int'l Business Special Topics in International Business (3 credits)**
- **MGT6971 Independent Study: Int'l Bus Independent Study in International Business (1 TO 3 credits)**
- **MIS6300 Manag Gbl Srcg IT & IT En Svc Managing Global Outsourcing of IT and IT Enabled Services (3 credits)**
- **MIS6480 Issues: International IT Issues in International Information Technology (3 credits)**
- **MKT6500 International Marketing International Marketing (3 credits)**
- **MKT6730 Product and Brand Management Product and Brand Management (3 credits)**
- **MKT6750 Relations Global Customer and Supplier Relationships in the Global Enterprise (3 credits)**
- **ORG6700 International Org Behav & HR International Organizational Behavior and Human Resources (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Post-Master's Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Management Information Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Management Information Systems	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Decision & Info Sciences

Credit Total

15

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3287

trumbull@oakland.edu

A post-master's graduate certificate for students with an MBA degree or equivalent to an MBA degree

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
 - Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements

- **MIS5240 Enterprise Information Systems Enterprise Information Systems (3 credits)**

(Students who have completed or its equivalent will be required to take an additional course from the management information systems elective list above to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 credits) from the following:

- **MIS5170 Practical Cyber Security Funda Practical Cyber Security Fundamentals (3 credits)**
- **MIS5180 IS Risk Analys & Sec Cont Dev IS Risk Analysis and Security Controls Development (3 credits)**

- **MIS5460 Business Analytics Business Analytics (3 credits)**
- **MIS5560 Intro to Data Science Introduction to Data Science (3 credits)**
- **MIS5630 Intro to Networks Introduction to Networks (3 credits)**
- **MIS5640 Network and Security Mgmt Network and Security Management (3 credits)**
- **MIS5700 IS Security IS Security (3 credits)**
- **MIS5750 Mobile Sec & Secure App Dev Mobile Security and Secure Application Development (3 credits)**
- **MIS6060 Adv Databases/Big Data Mgt Advanced Databases and Big Data Management (3 credits)**
- **MIS6200 Electronic Commerce Electronic Commerce (3 credits)**
- **MIS6220 Business Object Development Business Object Development (3 credits)**
- **MIS6250 IT Planning and Strategy IT Planning and Strategy (3 credits)**
- **MIS6300 Manag Gbl Srcg IT & IT En Svc Managing Global Outsourcing of IT and IT Enabled Services (3 credits)**
- **MIS6410 IS Privacy IS Privacy (3 credits)**
- **MIS6420 IS Issues in Supply Chain Mgt. IS Issues in Supply Chain Management (3 credits)**
- **MIS6430 Intell Property/Public Domain Intellectual Property and the Public Domain in the Age of Remix (3 credits)**
- **MIS6480 Issues: International IT Issues in International Information Technology (3 credits)**
- **MIS6900 Special Topics in MIS Special Topics in Management Information Systems (3 credits)**
- **QMM6970 Independent Study/Quant Method Independent Study in Management Information Systems (1 to 3 credits)**
- **QMM6400 Management Science Management Science (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Number of Post-Masters Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Business Economics

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Business Economics	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Economics

Credit Total

15

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))
(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull
238B Elliott Hall
(248) 370-3287
trumbull@oakland.edu

A post-master's graduate certificate for students with an MBA degree or equivalent to an MBA degree

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
 - Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Admission to the Post-Master's Graduate Certificate in Business Economics program is selective. In making admission recommendations to the post-master's graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their responses to questions on the Supplemental Program Form, their experience, and their recommendation forms.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements

ECN5210 Economics for Managers Economics for Managers (3 credits)

(Students who have completed **ECN5210 Economics for Managers** or its equivalent will be required to take an additional course from the business economics elective list below to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 credits) from the following:

- **ECN5050 Econometrics Econometrics (3 credits)**
- **ECN5180 Seminar in Economic Policy Seminar in Economic Policy (3 credits)**
- **ECN5560 Public Finance Public Finance (3 credits)**
- **ECN5670 Economics of Health Care Economics of Health Care (3 credits)**
- **ECN6730 International Trade & Finance International Trade and Finance (3 credits)**
- **ECN6850 Economics of Industries Economics of Industries (3 credits)**
- **ECN6900 Special Topics in Economics Special Topics in Economics (3 credits)**
- **ECN6970 Independent Study/Economics Independent Study in Economics (1 to 3 credits)**
- **FIN5700 International Financial Mgt International Financial Management (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship

- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Post-Master's Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Production/Operations Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Production/Operations Management	Major

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

18

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director:

Paul Trumbull

238B Elliott Hall

(248) 370-3287

trumbull@oakland.edu

A post-master's graduate certificate for students with an MBA degree or equivalent to an MBA degree

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester
- **International Students**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Curriculum Vitae or Resumé
 - Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
 - Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, prerequisite courses and any other admission requirements established by the academic department.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements

- **POM5210 Operations Management Operations Management (3 credits)**
- **POM6430 Operations Planning & Control Operations Planning and Control (3 credits)**

(Students who have completed **POM5210 Operations Management** or its equivalent will be required to take an additional course from the production and operations management elective list above to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 credits) from the following:

- **ACC6200 Cost Management Cost Management (3 credits)**
- **POM5410 Operations Analytics Operations Analytics (3 credits)**
- **POM6350 Management/Service Operations Management of Service Operations (3 credits)**
- **POM6400 Process Management Process Management (3 credits)**
- **POM6420 Supply Chain Management Supply Chain Management (3 credits)**
- **POM6450 Cases In Operations Mgt Cases in Operations Management (3 credits)**
- **POM6480 Project Management Project Management (3 credits)**
- **POM6900 Special Topics: POM Special Topics in Production and Operations Management (3 credits)**
- **POM6970 Independent Study: POM Independent Study in Production and Operations Management (1 TO 3 credits)**
- **QMM5520 Forecasting Forecasting (3 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Number of Post-Master's Certificates

A student may earn more than one post-master's certificate, but may not apply any specific course toward the requirement of more than one program. Post-master's certificates are available in accounting, business economics, entrepreneurship, finance, human resource management, international business, management information systems, marketing, and production/operations management. Each graduate certificate requires a minimum of 15 credits.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Entrepreneurship

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Entrepreneurship Major	

Program Type

Post Masters Certificate

College/School

School of Business Administration (BA)

Department(s)

Management & Marketing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Graduate Business Programs

238 Elliott Hall ([map](#))

(248) 370-3287

OUgradbusiness@oakland.edu

<http://www.oakland.edu/business/grad>

Program Director

Paul Trumbull

238B Elliott Hall

(248) 370-3287

trumbull@oakland.edu

Program Description

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received at Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 1 for summer semester

International Applicants

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate Application Requirements**

2. **Additional department application requirements**

- Curriculum Vitae or Resumé
- Earned MBA degree or equivalent to an MBA degree; applicants who do not hold an MBA degree may have their degree evaluated by the Office of Graduate Business Programs to determine eligibility for the program. Graduates of the Oakland University Master of Science in Engineering Management program are eligible for admission.
- Cumulative GPA of 3.0 or above in graduate degree

Admission Review and Assessment

Admission to the Post-Master's Graduate Certificate in Entrepreneurship program is selective. In making admission recommendations to the post-master's graduate certificate program, the department assesses the potential of applicants for success in the program by examining their graduate records, their experience, and their recommendation forms.

Certificate Prerequisites

The post-master's graduate certificate program requires the following of all admitted students:

- Personal Computer (PC) skills: students will be required to have proficiency in the use of word processors, spreadsheets, graphics, database management systems, and the Internet. If a student is deficient in these skills, the student would be required to take a college course, workshop, or continuing education course in PC skills as a prerequisite to the program.

Certificate Requirements

Course Requirements (15 credits)

Required course:

- **MGT6560 Entrepreneurship Entrepreneurship (3 credits)**

(Students who have completed **MGT6560 Entrepreneurship** or its equivalent will be required to take an additional course from the entrepreneurship elective list below to produce a total of 15 credits beyond the credits earned in their master's degree program or another graduate certificate program.)

Four additional courses (12 Credits) from the following:

- **ACC6250 Fed Income Taxation for Bus Federal Income Taxation for Business (3 credits)**
- **FIN5450 Real Estate Invest Analysis Real Estate Investment Analysis (3 credits)**
- **FIN5720 Adv Financial Management Advanced Financial Management (3 credits)**
- **MGT6600 Launching/Managing Small Bus Launching and Managing Small Businesses (3 credits)**

- **MGT6902 Spec Topics: Entrepreneurship Special Topics in Entrepreneurship** (3 credits)
- **MGT6972 Ind Study in Entrepreneurship Independent Study in Entrepreneurship** (3 credits)
- **MKT6600 Entrepreneurial Marketing Entrepreneurial Marketing** (3 credits)
- **MKT6700 Business to Business Marketing Business to Business Marketing** (3 credits)
- **MKT6730 Product and Brand Management Product and Brand Management** (3 credits)
- **MKT6800 Strategic Marketing Strategic Marketing** (3 credits)
- **ORG6350 Decision Making in Orgs Decision Making in Organizations** (3 credits)
- **ORG6360 Leadership & Group Performance Leadership and Group Performance** (3 credits)
- **POM6400 Process Management Process Management** (3 credits)
- **POM6480 Project Management Project Management** (3 credits)

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: To qualify for the graduate certificate, the student must complete the designated set of courses with a grade of 3.0 or above in each course.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Reading, Language Arts and Literature

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Reading, Language Arts and Literature	Major

Program Type

Post Masters Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

28

Delivery Method Required

Fully Online

Summer Semesters
2

Requirements

Program Requirements

Department of Teaching and Learning

485B Pawley Hall ([Map](#))

teach@oakland.edu

www.oakland.edu/teach

Coordinator:

Dr. Jason Moore

jasonmoore@oakland.edu

Program Description

The 28-credit post-master's graduate certificate in reading, language arts, and literature is intended for students with a master's degree in an educational field who wish to earn a Reading Specialist (BR) endorsement.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Oakland University Graduate School by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review. Applications will be reviewed as soon as they are completed, and applicants will be considered for admittance the following semester (fall, winter, or summer).

- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)

2. Two recommendation forms
3. Official transcripts

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements (28 credits)

Required courses:

- [RDG5520 Foundation Rdg Instruct](#) Foundations of Reading Instruction (3 credits) (fall semester)
- [RDG5558 Disciplinary Literacies](#) Disciplinary Literacies (winter semester)
- [RDG5542 Tch Writg Elem/Sec Schools](#) Teaching Writing in the Elementary and Secondary Schools (4 credits) (summer semester)
- [RDG5640 Leadership Literacy Instruct](#) Leadership in Literacy Instruction (4 credits) (fall semester)
- [RDG5533 Literature:Middle/Senior Schls](#) Adolescent Literature in Middle Schools, Junior and Senior High Schools (3 credits) (winter semester)
- [RDG6962 Literacy Assessment](#) Literacy Assessment (4 credits) (summer semester)
- [RDG6963 Assessment-Based Literacy Inst](#) Assessment-Based Literacy Instruction (4 credits) (summer semester)

Endorsement Requirements

Certificate plus Reading Specialist (BR) Endorsement

The Post-MAT Certificate in Reading, Language Arts, and Literature coursework prepares you to be eligible for the MAT plus Reading Specialist (BR) endorsement.

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

School Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	School Administration	Major

Program Type

Post Masters Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Organizational Leadership

Credit Total

24

Delivery Method Required

Partially Online, Fully Online

Summer Semesters
1

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/orgleadership

Eileen Johnson

475A Pawley Hall

johnso10@oakland.edu

Program Description

The state-approved Post-Master's Certificate in School Administration is based on the belief that effective leadership is learned by the content of the courses and the field experiences that are offered throughout the program. This program is practitioner-oriented, offering opportunities to apply theoretical learning with practical and authentic assignments. The learning laboratory for the program is the school or school district where assignments are completed and internships are conducted. The program utilizes a cohort model that develops a sense of community like that which is developed in a school; in this sense, the same practices that build capacity in an organization are cultivated and modeled in the program.

The Certificate program includes a one-year Internship in which the students work with a mentor of their choice, developing practice in leadership experiences that serve students, faculty, and the larger educational community. The students who complete the required 240 hours for the State of Michigan and are eligible for K-12 Administrative Certification and Building Level Endorsement after satisfactory completion of the 24 credits of the program, and this Internship in addition to passing the MTCC test for ES Endorsement in School Administration.

Program Delivery

The Post-Master's Certificate (PMC) in School Administration requires 24 credits, all of which are taken within the 11-month, cohort-structured program. Prescribed courses are generally scheduled one night per week for fall and winter semesters, with some courses scheduled for selected Saturdays throughout the semester. Summer semester requires some class meetings twice a week for the 4-credit courses.

The PMC is offered as a hybrid design, with some class meetings on ground and others online. Also available is a fully online program that offers both synchronous and asynchronous formatting.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Admissions by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- Rolling admissions until the cohorts are filled to a maximum of 15 students for fall semester
- Rolling admissions until the cohorts are filled to a maximum of 15 students for winter semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements and additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - A master's degree from a regionally accredited institution
 - **Requirements for Recommendations:**
Two Recommendation for Graduate Admission forms.
 - **Recommendation for Graduate Admission Form:**
The recommendation forms must be from supervisors familiar with the candidate's current or recent position
 - A statement indicating willingness to make a one-year commitment to the program and a statement of personal goals after completing the educational leadership program
 - Curriculum Vitae or Resume
 - Candidates may be interviewed by the program coordinator, who will make admission recommendations to Graduate Admissions.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses, and any other admission requirements established by the academic department.

The coordinator for the Post-Master's Certificate will screen candidates after all application materials have been received by Graduate Admissions.

Degree Requirements

The Post-Master's Certificate in School Administration is awarded upon satisfactory completion of 24 credits in an approved program of study as follows. All program participants select a mentor who is a practicing administrator. The Internship begins during the initial semester and continues throughout the entire program. Goals and activities are mutually agreed upon and reflect the state approved NELP Standards. The students complete the required 240 internship hours for State of Michigan and are eligible for building-level certification after satisfactory completion of the 24 credits of the program, and this Internship in addition to passing the MTCC test for ES Endorsement in School Administration.

Course Requirements (24 credits)

Required courses:

- **EA7950 Internship Experience I Internship Experience I (1 credit)**
- **EA8950 Internship Experience II Internship Experience II (1 credit)**
- **EA7720 School as Formal Organization School as a Formal Organization (4 credits)**
- **EA8840 School Business Management School Business Management (4 credits)**
- **EA7780 Educational Law Educational Law (4 credits)**
- **EA7740 Curriculum & Staff Development Curriculum and Staff Development (4 credits)**
- **EA7940 Sem School/Community Develop Seminar on School/Community Development (2 credits)**
- **EA8820 Hum Resource Mgt & Supervision Human Resource Management and Supervision (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling Post-Master's Certificate requirements, including the completion of critical milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: No grade below 2.8 may be applied to the degree, and an overall GPA of 3.0 must be maintained.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Internship and Field Experiences

All program participants are paired with a mentor, who is a practicing administrator. The internship begins during the initial course and continues throughout the entire program. Goals and activities are mutually agreed upon by the intern, mentor and cohort coordinator. Mentors will also provide support and assistance to PMC students as they complete the field experience requirement of various courses during the program.

Academic Portfolio

All program participants create a Post Master's Certificate academic electronic portfolio during the initial course. Using this framework, students will organize artifacts collected throughout their courses, field work, and internship. Portfolios will be presented during the final seminar of the program.

Ph.D. or Ed.D. Cognate Option

Upon completion of the Post Master's Certificate program, students may choose to apply to the Ph.D. in Education with a major in the Educational Leadership Program or the Ed.D. in the Organizational Leadership program. Twenty-eight (24) credits from the PMC can transfer as a cognate in the Ph.D. program and Twenty Four (24) credits can transfer as a cognate in the Ed.D. program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Central Office Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Central Office Administration	Major

Program Type

Post Masters Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

24

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Educational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/edleadership

Coordinator:

C. Suzanne Klein

480F Pawley Hall

(248) 370-3142

csklein@oakland.edu

Program Description

The Post-Master's Graduate Certificate in Central Office Administration is designed to be a 24-credit non-degree program meeting the standards for state school administrator certification. It may also serve as a cognate for the Ph.D. and Ed.D. programs.

This standards-based program reflects the best of what we know about preparing superintendents and other central office administrators to meet the educational challenges of the 21st century. Based on a strong theoretical foundation, it is a program designed for practitioners by practitioners, and is a valuable complement to the other graduate programs that prepare teacher leaders, principals, and central office administrators.

Program Delivery

Using the design model of an executive school leadership academy, candidates proceed through the 12-month, 24-credit program as a cohort. To accommodate busy practitioners, courses follow a hybrid format with monthly Saturday classes and weekly online learning. The required internship experience, designed as a complement to formal coursework, begins the first semester and continues

throughout the program. Using state and national leadership standards as a guide, Oakland University's Central Office program of study balances the explanatory power of theory with the relevance of practice.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

Current Deadlines

- August 1 for fall semester
- December 1 for winter semester
- [International applicants](#)

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. [Graduate application requirements](#)
2. **Additional department application requirements**
 - A master's degree in education or related field from a regionally accredited institution
 - **Recommendation for Graduate Admission form**
One recommendation must be from supervisors familiar with the candidate's current position and their professional effectiveness
 - A statement indicating willingness to make a two-year commitment to the program and a statement of personal goals after completing the Central Office Administration program.
 - Curriculum vitae or resumé
 - Applicants may be interviewed by the program coordinator, who will make admission recommendations to Graduate Admissions.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate and graduate records, goal statement, recommendation forms, curriculum vitae or resume, prerequisite courses and any other admission requirements or procedures.

Degree Requirements

The Post-Master's Graduate Certificate in Central Office Administration is awarded upon satisfactory completion of 24 credits in the approved program of study as follows.

Core Courses (24 credits)

Required courses:

- **ED8000 Foundation/District Leadership Foundations of District Leadership (4 credits)**
- **ED8010 Inst Lead/Using Data & Issues Supporting Instructional Leadership: Using Data and Issues in Assessment and Program Evaluation (4 credits)**
- **ED8020 Organizational Resources & Ops Organizational Resources and Operations (4 credits)**
- **ED8025 District Role/Formal-Informal District Role in Developing Relationship with Formal/Informal Groups (2 credits)**
- **ED8030 District Leadership/Community District Leadership and the Community (2 hours)**
- **ED8040 Ldrship Beyond School District District Leadership Beyond the School District: Navigating Political, Legal and Economic Environment (2 credits)**
- **ED8950 Intern/District Level Ldrship Internship in District Level Leadership (2 credits)**
- **ED8951 Expanding the Internship Expanding the Internship (2 credits)**
- **ED8952 Reflecting on the Internship Reflecting on the Internship (2 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence

- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Department requirements: No grade below 2.8 may be applied to the degree, and an overall GPA of 3.0 must be maintained.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the **Graduate Student Responsibility** section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Higher Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Higher Education	Major

Program Type

Post Masters Certificate

College/School

School of Education and Human Services (ED)

Department(s)

Teaching and Learning

Credit Total

16

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Department of Organizational Leadership

480D Pawley Hall ([map](#))

(248) 370-3070 • Fax (248) 370-4605

www.oakland.edu/edleadership

Coordinator:

Thande Sule

475D Pawley Hall

(248) 370-4339

sule@oakland.edu

Program Description

The Higher Education programs at Oakland University aims to develop transformational leaders who meet professional standards, understand social justice practices and think critically about promoting post-secondary institutions that are optimal sites for teaching and learning. The Post Master's Certificate (PMC) in Higher Education is designed for current or aspiring administrators who want to update and expand their knowledge of higher education, explore the social justice and transformational potential of colleges and universities, and hone their leadership skills. Graduates of our program will have the tools to enact principles of effective higher education practice through theory, research and practice. Specifically, students will be able to advance their careers toward senior administrative positions in higher education.

Designed for working professionals, the PMC offers a flexible opportunity to learn more about higher education for practitioners in the field and explore possible career options for those not already working in higher education. **Our courses are offered in the evenings and may be taken in any sequence to offer you maximum flexibility.**

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in Graduate Study and Lifelong Learning by the semester deadlines listed below. Incomplete applications will not be sent to departments for admission review.

- July 15 for fall semester
- November 15 for winter semester
- March 15 for summer semester
- **International applicants**

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines:

1. **Graduate application requirements**
2. **Additional department application requirements**
 - Applicants must have successfully completed a master's degree at an accredited college or university and meet Oakland University requirements for post-graduate enrollment.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to the Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, goal statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Certificate Requirements

The Post-Master's Graduate Certificate in Higher Education is awarded upon satisfactory completion of 16 credits in an approved program of study. Twelve of the credits are required courses and 4 of the credits are related graduate electives.

Course Requirements (16 credits)

a. Core Courses (12 credits)

Required courses:

- **EL6500 Contemporary American High Ed Contemporary American Higher Education (4 credits)**
- **EL6520 Crit Ldrshp Perspective HighED Critical Leadership Perspectives in Higher Education (4 credits)**
- **EL6580 Crit Soc Justice Persp High ED Critical Social Justice Perspectives in Higher Education (4 credits)**

b. Elective Options (4 credits)

Choose one course from the following:

- **ED7540 Resource Mgt in Higher Ed Resource Management in Higher Education (4 credits)**
- **EL6900 Current Topics/Higher Ed Current Topics in Higher Education (4 credits)**
- **EL6682 Crit Hst Perspectives High Ed Critical Historical Perspectives in Higher Education (4 credits)**
- **EL6683 Introduction to Student Affairs Introduction to Student Affairs (4 credits)**
- **EL6684 Intro to Academic Affairs Introduction to Academic Affairs (4 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of 3.0.

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program information

Plan of Study

All accepted applicants, in consultation with their assigned faculty program adviser, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the faculty program adviser and submitted by the student to Oakland University Graduate School.

Master's and graduate certificate students must submit a department-approved plan of study by the end of their first semester of graduate coursework. Doctoral students must submit an approved plan of study prior to completion of the first year of coursework. (See the [Graduate Student Responsibility](#) section of this catalog.)

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A [Petition of Exception - OU Course Waiver/ Substitution](#) requesting the substitution must be approved.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Adult Gerontological Nurse Practitioner Acute Care

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Adult Gerontological Nurse Practitioner Acute Care	Major

Program Type

Post Masters Certificate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

15

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-8733 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Tracey Chan
2004 Human Health Building
(248) 364-8748
techan@oakland.edu

Program Description

The Adult Gerontological-Acute Care (AG-AC) Post-Master's Certificate Program prepares students to be leaders in health care. Required coursework is based upon a gap analysis that compares prior MSN didactic and clinical experience with the AG-AC national certification requirements to determine the courses for the plan of study. The curriculum focuses on holistic patient care in the management of episodic and complex health issues in critically ill adolescents, young adults, adults, and older/aging adults. Attention is given to clinical experiences in acute care/inpatient settings. Oakland University's Nurse Practitioner Program is proud to educate students with experienced nurse practitioner faculty and students have opportunities for involvement with many organizations on campus, including the Michigan Council of Nurse Practitioners -

Oakland Chapter. Oakland University School of Nursing is accredited through CCNE. Upon completion of all program requirements, graduates are prepared for certification through ANCC or AACN.

Admission to the AG-AC track at Oakland University occurs once a year, during the Fall semester. Admission to the program is highly competitive and priority is given to students who submit all materials by the deadline. Our desired applicants are self-directed learners, demonstrate superior communication and interpersonal skills, and have strong critical thinking skills. Qualified applicants will be selected for an interview with current Oakland University School of Nursing faculty.

Post-Master's Certificate

Required coursework is based upon a gap analysis that compares prior MSN didactic and clinical experience with the Adult Gerontological Nurse Practitioner Acute Care national certification requirements to determine the courses for the plan of study. Graduates of the Post Master's Advanced Practice Registered Nurse (APRN) Certificate in Adult Gerontological Nurse Practitioner Acute Care are prepared to take the AGACNP national certification examination.

Master's Program Outcomes

1. Applies and integrates established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Design, deliver, coordinate, manage and evaluate comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Partners with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes.
4. Appraise, synthesize, integrate, and disseminate knowledge to improve person centered health and transform health care.
5. Facilitate and execute the implementation of principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems.
6. Facilitate the collaboration of interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Develop organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations.

8. Appraise informatics processes and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems.
9. Establish a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values.
10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

All applicants to this program are admitted for the fall semester only. The application deadlines are:

Fall Admission Application Deadlines

- Early Decision Application Deadline: March 1
- Standard Decision Application Deadline: May 1
- **International students:** May 1 for admission to the following Fall semester

Application Requirements

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Additional department application requirements

- Applicants for admission to the Master of Science in Nursing program must have completed a Bachelor of Science in Nursing degree with an overall undergraduate cumulative grade point average of B (3.0) or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Applicants must submit all transcripts from previously attended institutions.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- Unrestricted R.N license to practice in Michigan.

- Two (2) letters of recommendation are required and must be completed by healthcare professionals in nursing, leadership, administration/management, or education who can attest to the applicant's work and/or educational experience, as well as the applicant's potential for graduate study.

- Professional statement of 750 words or fewer. The professional statement should focus on the consensus model within the APRN scope of practice, the applicant's career goals after completion of the program, how recent clinical experiences have prepared them for an advanced practice role, and plans for professional development.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Post Master's APRN Certificate Requirements

A gap analysis of prior didactic coursework and clinical experiences from an applicant's master's degree program will be completed to determine coursework required for the post-master's APRN AGACNP certificate. The gap analysis will identify Foundation, Clinical Core, and Specialty course content necessary to prepare students to be eligible to sit for a national certification exam that corresponds with the role and population focus of the AGACNP track. Additional clinical hours may be necessary to meet the 500 minimum required for AGACNP certification. Students completing all required courses based on the gap analysis will earn a post-masters (PM) certificate in Adult Gerontological Acute Care NP. Based on the gap analysis courses for the student's plan of study (POS) will be selected from the following list of Foundation, Clinical Core, and Specialty courses.

The PM APRN AGACNP certificate is awarded upon satisfactory completion of a minimum of 15 credits in an approved plan of study. It is typical for PMC students to complete all of the courses listed under the *Specialty Courses* category below.

Course Requirements

a. Foundation Course Requirements (10 credits)

Foundation courses address critical content needed by all graduate nursing students.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice (4 credits)**
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination (1 credit)**
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice (3 credits)**
- **NRS6398 Graduate Project Graduate Project (2 credits)**

b. Clinical Core Courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills and are based on population foci.

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan (3 credits)**
- **NRS6421 Adv Hlth Assess Across Lifespa Advanced Health Assessment Across the Lifespan (4 credits)**
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan (4 credits)**

c. Specialty Courses (27 credits)

Specialty courses consist of didactic and clinical courses that prepare students for advanced practice nursing. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and graduate foundation and clinical core courses, and are based on population foci.

- **NRS5251 Interprof Role Dev/Ethic-ANP Inter-professional Role Development Leadership and Ethics in Advanced Nursing Practice (3 credits)**
- **NRS6627 Adv Concepts in Gerontology Advanced Concepts in Gerontology (3 credits)**
- **NRS6734 NP Diag Test Proc Acute Care S Nurse Practitioner Diagnostic Testing and Procedures in the Acute Care Setting (2 credits)**
- **NRS6737 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical concepts in Acute Care I (6 credits)**
- **NRS6747 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care II (6 credits)**
- **NRS6767 Adult/Gero NP Clin Con Acute C Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care III (7 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the **Office of Financial Aid** for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program.

To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the School of Nursing Graduate Student Handbook.

Students are expected to earn a grade of B (3.0) or above in each course in the PM APRN Certificate program. In courses graded Satisfactory/ Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the SON website for health requirements. Students are also required to meet any requirements of the healthcare facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned NP Program Director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the NP Director and the student.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for all requirements and policies stated in the School of Nursing Graduate Student Handbook and in each course syllabus. Every student admitted to the MSN program is assigned an academic adviser and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Family Nurse Practitioner Primary Care

General

Program Level	Degree Designation	Program Title	Field of Study Type
GR	PMC	Family Nurse Practitioner Primary Care	Major

Program Type

Post Masters Certificate

College/School

School of Nursing (NR)

Department(s)

Nursing

Credit Total

15

Delivery Method Required

In person

**Summer
Semesters**

1

Requirements

Program Requirements

School of Nursing

3008 Human Health Building ([map](#))
(248) 370-8733 • Fax (248) 364-8740
www.oakland.edu/nursing

Program Director:

Tracey Chan
2004 Human Health Building
(248) 364-8748
techan@oakland.edu

Program Description

The Family Nurse Practitioner (FNP) Primary Care Post-Masters Graduate Certificate program prepares the students to be leaders in health care. The curriculum focuses on holistic patient care in the management of routine, episodic and complex health issues, with attention given to clinical experiences in primary care across the lifespan. Oakland University's Nurse Practitioner Program is proud to educate students with experienced nurse practitioner faculty and students have opportunities for involvement with many organizations on campus, including the Michigan Council of Nurse Practitioners - Oakland Chapter. Oakland University School of Nursing is accredited through CCNE. Upon completion of all program requirements, graduates are prepared for certification through ANCC or AANP.

Admission to the FNP track at Oakland University occurs twice a year, during the Fall and Winter semesters. Admission to the program is highly competitive and priority is given to students who submit all materials by the deadline. Our desired applicants are self-directed learners, demonstrate superior communication and interpersonal

skills, and have strong critical thinking skills. Qualified applicants will be selected for an interview with current Oakland University School of Nursing faculty.

Post-Master's Certificate

Required coursework is based upon a gap analysis that compares prior MSN didactic and clinical experience with the FNP national certification requirements to determine the courses for the plan of study. Graduates of the Post- Master's Advanced Practice Registered Nurse (APRN) Certificate in Family Nurse Practitioner are prepared to take the Family Nurse Practitioner national certification examination.

Master's Program Outcomes

1. Applies and integrates established and evolving scientific knowledge from nursing and other disciplines as the basis for ethical clinical judgment, decision making, innovation, and diagnostic reasoning.
2. Design, deliver, coordinate, manage and evaluate comprehensive person-centered care utilizing best evidence at the advanced nursing practice specialty level.
3. Partners with public health, healthcare systems, community, academic community, governmental, and other entities to integrate advanced nursing knowledge into culturally competent practices that promote health and disease prevention to improve equitable population health outcomes.
4. Appraise, synthesize, integrate, and disseminate knowledge to improve person centered health and transform health care.
5. Facilitate and execute the implementation of principles of safety and improvement science to maximize quality and minimize the risk of harm for providers, patients, populations and systems.
6. Facilitate the collaboration of interprofessional teams to optimize care with patients, families, communities, and other stakeholders to enhance healthcare experiences and improve outcomes.
7. Develop organizational and system-level plans to enhance quality and safety to improve patient, population, and organizational outcomes to provide safe, high quality, and equitable care to diverse populations.
8. Appraise informatics processes and use communication and healthcare technologies to form information to drive decision making, and evaluate and improve programs, outcomes, and standards of care within healthcare systems.
9. Establish a professional identity within a nursing specialty that is accountable, collaborative and reflects nursing's disposition, comportment, perspective, and values.
10. Lead, model, and facilitate activities that foster wellness, resilience, and progression toward growth for self, others, and the profession in the acquisition of nursing expertise and assertion of leadership capacity within advanced nursing practice specialties.

Admission Terms and Application Deadlines

Before an applicant's file can be reviewed for full program admission, all application documents must be received in **NursingCAS** by the deadline listed below. Incomplete applications will not be sent to departments for admission review.

Fall Admission Application Deadlines

- Early Decision Application Deadline: March 1
- Standard Decision Application Deadline: May 1

Winter Admission Application Deadlines

- Early Decision Application Deadline: September 1
- Standard Decision Application Deadline: November 1
- **International students:** May 1 for admission to the following Fall semester and September 1 for following Winter semester (see additional requirements below)

Application Requirements

Applicants do not submit an online Oakland University Graduate Application. A completed application and required materials must be submitted through the **Nursing Centralized Application Service** (NursingCAS).

To be considered for graduate admission, applicants must submit all Graduate Application Requirements **and** additional department requirements by the published application deadlines.

Additional Department Application Requirements

- Applicants for admission to the Post-Master APRN Certificate of Science in Nursing program must have completed a Bachelor of Science in Nursing degree and a Master of Science in Nursing degree with an overall undergraduate cumulative grade point average of B (3.0) or above from an institution accredited by the National League for Nursing or the Commission on Collegiate Nursing Education.
- Applicants must submit all transcripts from previously attended institutions.
- Proof of a current unrestricted Registered Nurse license in the United States or its territories.
- Unrestricted R.N license to practice in Michigan.
- Two (2) letters of recommendation are required and must be completed by healthcare professionals in nursing, leadership, administration/management, or education who can attest to the applicant's work and/or educational experience, as well as the applicant's potential for graduate study.

Professional statement of 750 words or fewer. The professional statement should focus on the consensus model within the APRN scope of practice, the applicant's career goals after completion of the program, how recent clinical experiences have prepared the applicant for an advanced practice role, and plans for professional development.

International Students

- International students are encouraged to contact The Graduate School (www.oakland.edu/grad) to determine what additional documentation is required for admission eligibility.

Admission Review and Assessment

Admission to graduate school at Oakland University is selective. In making admission recommendations to Oakland University Graduate School, each department assesses the potential of applicants for success in the program by examining their undergraduate records, professional statement, letters of recommendation, prerequisite courses and any other admission requirements established by the academic department.

Qualified applicants will be selected for an individual interview with a School of Nursing faculty. The interview will be scheduled after all application materials have been submitted.

Post Master's APRN Certificate Requirements

A gap analysis of prior didactic coursework and clinical experiences from an applicant's master's degree program will be completed to determine coursework required for the post-master's APRN FNP certificate. The gap analysis will identify Foundation, Clinical Core, and Specialty course content necessary to prepare students to be eligible to sit for a national certification exam that corresponds with the role and population focus of the FNP track. Additional clinical hours may be necessary to meet the 500-hour minimum required for FNP certification. Students completing all required courses based on the gap analysis will earn a post-masters (PM) certificate in Family Nurse Practitioner. Based on the gap analysis courses for the student's plan of study (POS) will be selected from the following list of Foundation, Clinical Core, and Specialty courses.

The PM APRN FNP Primary Care certificate is awarded upon satisfactory completion of a minimum of 15 credits in an approved plan of study.

Course Requirements Based upon a gap analysis.

a. Foundation Course Requirements (10 credits)

Foundation courses address critical content needed by all graduate nursing students.

- **NRS5312 Theory/Trans Res Adv Nrs Prac Theory and Transitional Research for Advanced Nursing Practice (4 credits)**
- **NRS5322 Nrs Schship and Dissemination Nursing Scholarship and Dissemination (1 credit)**
- **NRS5241 Sys Lead Hth Pol Adv Nrs Prac Systems Leadership and Health Policy for Advanced Nursing Practice (3 credits)**
- **NRS6398 Graduate Project Graduate Project (2 credits)**

b. Clinical Core Courses (11 credits)

The clinical core courses provide graduate students with advanced clinical knowledge and skills and are based on population foci.

- **NRS6411 Adv Patho Across Lifespan Advanced Pathophysiology Across the Lifespan (3 credits)**
- **NRS6421 Adv Hlth Assess Across Lifespa Advanced Health Assessment Across the Lifespan (4 credits)**
- **NRS6441 ADV Pharm Across Lifespan Advanced Pharmacology Across the Lifespan (4 credits)**

c. Specialty courses (22-26 credits)

Specialty courses are comprised of didactic and clinical courses that prepare students for advanced practice nursing. The specialty courses build upon nursing knowledge and skills learned at the undergraduate level and graduate foundation, clinical core courses and are based on population foci.

- **NRS5251 Interprof Role Dev/Ethic-ANP Inter-professional Role Development Leadership and Ethics in Advanced Nursing Practice (3 credits)**
- **NRS6633 Health Promo Across Lifespan Health Promotion Across the Lifespan (2 credits)**
- **NRS6637 Adv Nrs Care Episodic Hlth Con Advanced Nursing Care Acute Health Conditions (6 credits)**
- **NRS6647 Adv Nrs Care Chronic Hlth Cond Advanced Nursing Care of Chronic Health Conditions (5 credits)**
- **NRS6657 Adv Nrs Care Ped Patients Advanced Nursing Care of Pediatric Patients (5 credits)**
- **NRS6667 Adv Nrs Care Aging Adult Advanced Nursing Care of the Older Adult (5 credits)**

Satisfactory Academic Progress

Satisfactory Academic Progress (SAP) is the term used to denote a student's successful completion of coursework toward a certificate or degree. Federal regulations require the Office of Financial Aid to monitor Satisfactory Academic Progress for all financial aid recipients each semester.

Students who fall behind in their coursework, or fail to achieve minimum standards for grade point average and completion of classes, may lose their eligibility for all types of federal, state and university aid. Contact the [Office of Financial Aid](#) for additional details.

Good Academic Standing

All graduate students are expected to remain in **good Academic Standing** throughout the entire course of their graduate program. To be in good academic standing, a graduate student must make satisfactory progress toward fulfilling degree requirements, including the completion of critical degree milestones as set forth by the academic program. The student must also maintain a minimum semester and overall GPA of B (3.0).

Good academic standing is a requirement for:

- Holding a Graduate Assistantship
- Receiving a fellowship or scholarship
- Advancing to candidacy for a graduate degree
- Going on a leave of absence
- Obtaining a graduate certificate or degree from Oakland University.

Additionally, graduate students must meet all department academic standards which may be more stringent than the minimum set forth by the University.

Program requirements: Students are required to follow the university policies and procedures for graduate students, as described in the Oakland University Graduate Catalog. In addition to the university requirements, specific School of Nursing policies and procedures are outlined in the **School of Nursing Graduate Student Handbook**.

Students are expected to earn a grade of B (3.0) or above in each course in the PM APRN Certificate program. In courses graded Satisfactory/ Unsatisfactory (S/U), students are expected to earn a course grade of satisfactory. Students who are not making satisfactory progress in the program may be placed on probation with conditions imposed for retention in the program or may be recommended for dismissal from the program.

Students are required to keep health requirements current and must maintain an RN license that is current and free of any complaint or restriction throughout the program. See the **School of Nursing Website** for health requirements. Students are also required to meet any requirements of the health care facilities where they have clinical learning experiences.

Graduate students who are not in good academic standing for any reason are subject to probation and/or dismissal from further graduate study.

Related Program Information

Plan of Study

All accepted applicants, in consultation with their assigned NP Program Director, must develop a plan of study that details specific courses the students will use to satisfy their degree requirements. The plan of study must be approved by the Program Director.

Note: Credit granted for successful completion of a course toward an undergraduate degree program may not be repeated for a graduate degree. If a substitution is approved, the minimum number of program-approved graduate credits will be required. A **Petition of Exception - OU Course Waiver/ Substitution** requesting the substitution must be approved.

Advising

Students are responsible for all requirements and policies stated in the School of Nursing Graduate Student Handbook and in each course syllabus. Every student admitted to the MSN program is

assigned an **academic adviser** and program director who are available to discuss coursework, plans of study, concerns regarding progression in the program, and student career goals.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, GC	Interdisciplinary Studies/Court Administration	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total	Delivery Method	Required
126	In Person	Summer Semesters
		0

Requirements

Program Requirements

The Combined B.I.S./Court Administration Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.I.S. and a Graduate Certificate in Court Administration.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, these 6 credits would replace 6 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

German Language and Literature/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	German Language and Literature/Health Care Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined German Language and Literature, B.A./Health Care Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Health Care Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the German Language and Literature B.A. However, one capstone course (**GRM4130 German Lit/Mid Ages-17th Cent**, **GRM4180 German Literature-18th Cent**, **GRM4190 German Literature-19th Cent**, or **GRM4200 Modern/Contemp German Lit**) is still required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

International Relations/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	International Relations/Health Care Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined International Relations, B.A./Health Care Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in International Relations and a Graduate Certificate in Health Care Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 6 credits in Section 3, Electives in economics, history, philosophy, or a foreign language. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Japanese Language and Literature/ Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Japanese Language and Literature/Health Care Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Japanese Language and Literature, B.A./Health Care Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Health Care Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any 2 courses that fulfill the Japanese Language and Literature B.A. , with the exception of **JPN3140 Japanese Grammar and Reading**, **JPN3550 Translation: Japanese**, **JPN3700 Intro to Japanese Literature**, and **JPN4200 Modern/Contemp Japanese Lit**, which would still be required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Political Science/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Political Science/Health Care Administration	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined Political Science, B.A./Health Care Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in Political Science and a Graduate Certificate in Health Care Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 2 4-credit PS electives. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Health Care Administration

General

Program Level	Program Title	Field of Study Type
UG	Spanish Language and Literature/Health Care Administration	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Modern Languages & Literatures

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, GC	Interdisciplinary Studies/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined B.I.S./Nonprofit Organization and Management Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.I.S. and a Graduate Certificate in Nonprofit Organization and Management.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, these 6 credits would replace 6 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the Graduate Certificate program.

French Language and Literature/ Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	French Language and Literature/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**
0

- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined French Language and Literature, B.A./Nonprofit Organization and Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Nonprofit Organization and Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the French Language and Literature B.A. However, one 4000 level course from following is still required: **FRH4160 French Lit/Mid Ages-16th Cent**, **FRH4170 French Lit-17th and 18th Cent**, **FRH4190 French Literature-19th Cent**, **FRH4200 Modern/Contemp French Lit**, or **FRH4970 Undergraduate Seminar**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;

German Language and Literature/ Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	German Language and Literature/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters
0

- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined German Language and Literature, B.A./Nonprofit Organization and Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the German Language and Literature B.A. However, one capstone course (**GRM4130 German Lit/Mid Ages-17th Cent**, **GRM4180 German Literature-18th Cent**, **GRM4190 German Literature-19th Cent**, or **GRM4200 Modern/Contemp German Lit**) is still required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;

International Relations/Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	International Relations/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

The Combined International Relations, B.A./ Nonprofit Organization and Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in International Relations and a Graduate Certificate in Nonprofit Organization and Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 6 credits in Section 3, Electives in economics, history, philosophy, or a foreign language. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Japanese Language and Literature/ Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Japanese Language and Literature/ Nonprofit Organization and Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**

0

- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Japanese Language and Literature, B.A./ Nonprofit Organization and Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Nonprofit Organization and Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any 2 courses that fulfill the Japanese Language and Literature B.A. , with the exception of **JPN3140 Japanese Grammar and Reading**, **JPN3550 Translation: Japanese**, **JPN3700 Intro to Japanese Literature**, and **JPN4200 Modern/Contemp Japanese Lit**, which would still be required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;

French Language and Literature/Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	French Language and Literature/Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

MLL/PS

Credit Total	Delivery Method	Required
126	In Person	Summer Semesters 0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined French Language and Literature, B.A./Court Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Court Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the French Language and Literature B.A. However, one 4000 level course from following is still required: **FRH4160 French Lit/Mid Ages-16th Cent**, **FRH4170 French Lit-17th and 18th Cent**, **FRH4190 French Literature-19th Cent**, **FRH4200 Modern/Contemp French Lit**, or **FRH4970 Undergraduate Seminar**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Political Science/Nonprofit Organization and Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Political Science/Nonprofit Organization and Management	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined Political Science, B.A./Nonprofit Organization and Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in Political Science and a Graduate Certificate in Nonprofit Organization and Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 2 4-credit PS electives. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Nonprofit Organization and Management

General

Program Level	Program Title	Field of Study Type
UG	Spanish Language and Literature/Nonprofit Organization and Management	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Modern Languages & Literatures

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, GC	Interdisciplinary Studies/Local Government Management	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total	Delivery Method	Required
126	In Person	Summer Semesters
		0

Requirements

Program Requirements

The Combined B.I.S./Local Government Management Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.I.S. and a Graduate Certificate in Local Government Management.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, these 6 credits would replace 6 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

French Language and Literature/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	French Language and Literature/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined French Language and Literature, B.A./Local Government Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the French Language and Literature B.A. However, one 4000 level course from following is still required: **FRH4160 French Lit/Mid Ages-16th Cent**, **FRH4170 French Lit-17th and 18th Cent**, **FRH4190 French Literature-19th Cent**, **FRH4200 Modern/Contemp French Lit**, or **FRH4970 Undergraduate Seminar**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

German Language and Literature/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	German Language and Literature/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined German Language and Literature, B.A./Local Government Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the German Language and Literature B.A. However, one capstone course (**GRM4130 German Lit/Mid Ages-17th Cent**, **GRM4180 German Literature-18th Cent**, **GRM4190 German Literature-19th Cent**, or **GRM4200 Modern/Contemp German Lit**) is still required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

International Relations/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	International Relations/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined International Relations, B.A./ Local Government Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in International Relations and a Graduate Certificate in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 6 credits in Section 3, Electives in economics, history, philosophy, or a foreign language. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Japanese Language and Literature/ Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Japanese Language and Literature/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Japanese Language and Literature, B.A./Local Government Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any 2 courses that fulfill the Japanese Language and Literature B.A. , with the exception of **JPN3140 Japanese Grammar and Reading, JPN3550 Translation: Japanese, JPN3700 Intro to Japanese Literature, and JPN4200 Modern/Contemp Japanese Lit**, which would still be required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Political Science/Local Government Management

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Political Science/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined Political Science, B.A./Local Government Management, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in Political Science and a Graduate Certificate in Local Government Management.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 2 4-credit PS electives. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Local Government Management

General

Program Level	Program Title	Field of Study Type
UG	Spanish Language and Literature/Local Government Management	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, GC	Interdisciplinary Studies/Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total

126

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

The Combined B.I.S./Court Administration Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.I.S. and a Graduate Certificate in Court Administration.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, these 6 credits would replace 6 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

German Language and Literature/Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	German Language and Literature/Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

Summer Semesters
0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined German Language and Literature, B.A./Court Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Court Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the German Language and Literature B.A. However, one capstone course (**GRM4130 German Lit/Mid Ages-17th Cent**, **GRM4180 German Literature-18th Cent**, **GRM4190 German Literature-19th Cent**, or **GRM4200 Modern/Contemp German Lit**) is still required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

French Language and Literature/ Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	French Language and Literature/ Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**
0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined French Language and Literature, B.A./Criminal Justice Leadership, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Criminal Justice Leadership.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the French Language and Literature B.A. However, one 4000 level course from following is still required: **FRH4160 French Lit/Mid Ages-16th Cent**, **FRH4170 French Lit-17th and 18th Cent**, **FRH4190 French Literature-19th Cent**, **FRH4200 Modern/Contemp French Lit**, or **FRH4970 Undergraduate Seminar**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

German Language and Literature/ Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	German Language and Literature/ Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined German Language and Literature, B.A./Criminal Justice Leadership, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Criminal Justice Leadership.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the German Language and Literature B.A. However, one capstone course (**GRM4130 German Lit/Mid Ages-17th Cent**, **GRM4180 German Literature-18th Cent**, **GRM4190 German Literature-19th Cent**, or **GRM4200 Modern/Contemp German Lit**) is still required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

International Relations/Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	International Relations/ Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined International Relations, B.A./Criminal Justice Leadership, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in International Relations and a Graduate Certificate in Criminal Justice Leadership.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 6 credits in Section 3, Electives in economics, history, philosophy, or a foreign language. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Japanese Language and Literature/ Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Japanese Language and Literature/ Criminal Justice Leadership	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**

0

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined Japanese Language and Literature, B.A./Criminal Justice Leadership, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Criminal Justice Leadership.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any 2 courses that fulfill the Japanese Language and Literature B.A. , with the exception of **JPN3140 Japanese Grammar and Reading**, **JPN3550 Translation: Japanese**, **JPN3700 Intro to Japanese Literature**, and **JPN4200 Modern/Contemp Japanese Lit**, which would still be required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Political Science /Criminal Justice Leadership

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Political Science Major /Criminal Justice Leadership	

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Political Science

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Requirements

Program Requirements

The Combined Political Science, B.A./Criminal Justice Leadership, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in Political Science and a Graduate Certificate in Criminal Justice Leadership.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 2 4-credit PS electives. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Spanish Language and Literature/ Criminal Justice Leadership

General

Program Level	Program Title	Field of Study Type
UG	Spanish Language and Literature/Criminal Justice Leadership	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS)

Department(s)
Modern Languages & Literatures

Credit Total	Delivery Method	Required Summer Semesters
126	In Person	0

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

Communication

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MA	Communication	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Communication, Journalism & PR

Credit Total

140

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Communication, Combined B.A. to M.A. Program

The Communication, Combined B.A. to M.A. program allows students to take master's-level courses that count toward both their bachelor's and master's degree in Communication. This combined program enables students to complete three graduate-level courses while earning their undergraduate degree, all at undergraduate tuition rates.

It is recommended that students complete the core requirements and apply to the program at the end of the first semester of their junior year.

Admission Criteria

Admission to the Communication, Combined B.A. to M.A. program is granted only by the department.

1. To be considered for admission students must complete the major core requirements in Communication:

- **COM1000 Found of Com Studies Foundations of Communication Studies (4)**
- **COM2000 Public Speaking Public Speaking (4)**
or **COM2001 Professional Communication Professional Communication (4)**
- **COM3000 Relational Com Theory Relational Communication Theory (4)**
or **COM3201 Rhetorical Theory Rhetorical Theory (4)**

or **COM3002 Cultural Theory in Com Cultural Theory in Communication (4)**

or **COM3202 Discourse Theory Discourse Theory (4)**

- **COM3300 Com, Culture & Belonging Communication, Culture, and Belonging (4)**

2. Students must have an overall GPA of at least 3.0 and a GPA in the major of at least 3.3 to enter the program.

3. If approved for the program by the department, students will receive deferred admission status into the graduate M.A. program. Upon completion of the B.A. degree, students who have maintained an overall undergraduate GPA of 3.0 and earned a minimum grade of B- in each of their graduate courses will be formally admitted to the M.A. program.

If admitted to the program, 12-credits of graduate courses will apply to the bachelor's degree and also count for graduate credit. Courses eligible to be double-counted must be at the 5000-level or 6000-level, and each must be passed with a minimum grade of B-. Independent study courses, internships or courses given for credit by examination are not eligible. Successful completion of major core requirements with a GPA of 3.0 does not guarantee admission.

Once accepted into the program, students will take **COM5002 COM Studies Scholarship** (in place of the B.A. capstone); and two 5000 or 6000 level COM graduate courses (in place of two COM electives).

4. Students who opt not to continue on with full admission to the M.A. program in their senior undergraduate year must meet with a faculty adviser to ensure they have met the requirements for graduation.

How to Apply

Students who have completed the required courses with a minimum grade of B- must complete and submit a Declaration of Eligibility Form available on the Department's web page as well as an application for the Master's in Communication program. The eligibility form must be emailed to the coordinator for the Master's in Communication program.

*Transfer students are welcome and should see an advisor.

** Students must maintain an overall GPA of 3.0 to remain in the combined degree program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Public Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, MPA	Interdisciplinary Studies/Public Administration	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies, Political Science

Credit Total

143

Delivery Method Required

In Person

Summer Semesters

0

Note: Students must receive formal delayed admission into the MPA program to be eligible to register for graduate courses in the MPA program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined B.I.S./MPA program is designed for high achieving undergraduate students pursuing a B.I.S. at Oakland University and wishing to complete a Master of Public Administration degree. The combined B.I.S./MPA allows students to take 4 graduate level courses, **PA5100 Foundations of Public Admin**, **PA5200 Public Budgeting and Finance**, and **PA5300 Human Resources Mgmt Pub Sectr**, and 1 5000-level PA elective, while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, the graduate credits taken would replace up to 13 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the MPA program.

International Relations/Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	International Relations/Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total	Delivery Method	Required
126	In Person	Summer Semesters
		0

Requirements

Program Requirements

The Combined International Relations, B.A./Court Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in International Relations and a Graduate Certificate in Court Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 6 credits in Section 3, Electives in economics, history, philosophy, or a foreign language. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Science

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Computer Science	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

Summer Semesters

0

2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of three graduate classes (12 credits)
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Computer Science**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Requirements

Program Requirements

The Combined BS/MS in Computer Science (BS) and Computer Science (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Computer Science major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

To be eligible for the Computer Science, Combined B.S./M.S. option, students must:

1. Have a major GPA of 3.2 or above.

Computer Science/Cybersecurity

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Computer Science/ Cybersecurity	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science
(EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

The Combined BS/MS in Computer Science (BS) and Cyber Security (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Computer Science major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

To be eligible for the Computer Science/Cybersecurity, Combined B.S./M.S. option, students must:

1. Have a major GPA of 3.2 or above.
2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of three graduate classes (12 credits)
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Computer Science**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Engineering/Electrical and Computer Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Computer Engineering/ Electrical and Computer Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrcl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

The Combined BSE/MS in Computer Engineering (BSE) and Electrical and Computer Engineering (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Computer Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in CE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which

courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Computer Engineering, B.S.E/Electrical and Computer Engineering, M.S. option, students must:

1. Have achieved Major Standing in Computer Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Computer Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Subject	Number	Title	Credits	Undergraduate requirement met (Each course can only meet one)
ECE	5710	Computer Hardware Design	4	• Required Professor Subject
ECE	5721	Embedded Systems Design	4	• Required Professor Subject
ECE	5130	Microelectronic Materials and Devices	4	• Elective
ECE	5132	VLSIC Design of Digital Chips	4	• Elective
ECE	5134	Fundamentals of MEMS	4	• Elective
ECE	5137	High-Frequency Electronics	4	• Elective
ECE	5404	Linear Systems and Controls	4	• Elective
ECE	5500	Robotic Systems and Control	4	• Elective
ECE	5510	Machine Vision	4	• Elective

ECE	5520	Automotive Mechatronics I	4	• Elective
ECE	5551	Human Robot Interaction	4	• Elective
ECE	5600	Fundamentals of AC Motor Design	4	• Elective
ECE	5620	Electrical Energy Systems	4	• Elective
ECE	5640	Battery Management Systems	4	• Elective
ECE	5760	Embedded System Design with FPGAs	4	• Elective
ECE	5770	GPU Accelerated Computing	4	• Elective
ECE	5772	High Performance Embedded Programming	4	• Elective
ECE	5810	Quantum Computer Design	4	• Elective
CSI	5130	Artificial Intelligence	4	• Elective

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Electrical Engineering/Electrical and Computer Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Electrical Engineering/ Electrical and Computer Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrcl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

The Combined BSE/MS in Electrical Engineering (BSE) and Electrical and Computer Engineering (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Electrical Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in EE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Electrical and Computer Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which

courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Electrical Engineering, B.S.E/Electrical and Computer Engineering, M.S. options, students must:

1. Have achieved Major Standing in Electrical Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Electrical Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Subject	Number	Title	Credits	Undergraduate requirement (Each course can only be taken once)
ECE	5130	Microelectronic Materials and Devices	4	• Key Courses: ECE 5130, ECE 5132, ECE 5137, ECE 5134, ECE 5135, ECE 5310, ECE 5320 • Free Elective: 4 credits • Required: Microelectronic Concentration
ECE	5132	VLSIC Design of Digital Chips	4	• Elective: Electronic • Free Elective: 4 credits • Required: Microelectronic Concentration
ECE	5137	High-Frequency Electronics	4	• Elective: Electromagnetic • Free Elective: 4 credits
ECE	5134	Fundamentals of MEMS	4	• Elective: Electronic, Bioinstrumentation and Biosignals Processing, Mechatronics Concentration, Microelectronic Concentration • Free Elective: 4 credits
ECE	5135	Microelectronic Fabrication Technologies	4	• Elective: Electronic • Free Elective: 4 credits • Required: Microelectronic Concentration
ECE	5310	Antennas	4	• Elective: Electromagnetic • Free Elective: 4 credits
ECE	5320	Electromagnetic Compatibility	4	• Elective: Electromagnetic • Free Elective: 4 credits

ECE	5404	Linear Systems and Control	4	• Elective: (4 credits) • Free Elective: 4 credits
ECE	5500	Robotic Systems and Control	4	• Key courses: Robotics • Free Elective: 4 credits • Fundamental Course: Robotics Concentration
ECE	5510	Machine Vision	4	• Elective: Fuzzy Mechatronics Concentration • Free Elective: 4 credits • Fundamental Course: Robotics Concentration
ECE	5520	Automotive Mechatronics I	4	• Elective: Fuzzy, Automotive Electrification Concentration, Robotics Concentration • Free Elective: 4 credits
ECE	5551	Human Robot Interaction	4	• Elective: Fuzzy, Robotics Concentration • Free Elective: 4 credits
ECE	5600	Fundamentals of AC Motor Design	4	• Fundamental Course: Automotive Electrification Concentration
ECE	5620	Electrical Energy Systems	4	• Elective: Fuzzy Systems • Free Elective: 4 credits • Required: and Energy Systems Concentration

ECE	5630	Electric and Hybrid Drive Systems	4	• Elective: F Systems, and Energ Systems Concentra • Free Elect • Fundame Course: Automoti Electrifica Concentra
ECE	5640	Battery Management Systems	4	• Fundame Course: Automoti Electrifica Concentra • Elective: F and Energ Systems Concentra
ECE	5710	Computer Hardware Design	4	• Elective: (Engineerin Microelec Concentra • Free Elect
ECE	5721	Embedded Systems Design	4	• Elective: (Engineerin • Free Elect • Fundame Courses: Mechatroi Concentra
ECE	5772	High Performance Embedded Programming	4	• Elective: (Engineerin • Free Elect
ECE	5810	Quantum Computer Design	4	• Elective: (Engineerin • Free Elect

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Engineering/Mechatronics and Robotics Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Computer Engineering/ Mechatronics and Robotics Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrc'l & Comp'r Engineering

Credit Total

153

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined BSE/MS in Computer Engineering (BSE) and Mechatronics and Robotics Engineering (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Computer Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in CE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which

courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Computer Engineering, B.S.E./Mechatronics and Robotics Engineering, M.S. option, students must:

1. Have achieved Major Standing in Computer Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Computer Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Please note that the Mechatronics and Robotics Engineering, M.S., degree only allows for a single 4-credit Free elective course.

Subject	Number	Title	Credits	Undergraduate requirement met (Each course can only meet one)
ECE	5710	Computer Hardware Design	4	• Required Professor Subject
ECE	5721	Embedded Systems Design	4	• Required Professor Subject
ECE	5130	Microelectronic Materials and Devices	4	• Elective
ECE	5132	VLSIC Design of Digital Chips	4	• Elective
ECE	5134	Fundamentals of MEMS	4	• Elective
ECE	5137	High-Frequency Electronics	4	• Elective
ECE	5404	Linear Systems and Controls	4	• Elective
ECE	5500	Robotic Systems and Control	4	• Elective
ECE	5510	Machine Vision	4	• Elective

ECE	5520	Automotive Mechatronics I	4	• Elective
ECE	5551	Human Robot Interaction	4	• Elective
ECE	5600	Fundamentals of AC Motor Design	4	• Elective
ECE	5620	Electrical Energy Systems	4	• Elective
ECE	5640	Battery Management Systems	4	• Elective
ECE	5772	High Performance Embedded Programming	4	• Elective
ECE	5810	Quantum Computer Design	4	• Elective
ECE	5740	Embedded Artificial Intelligence	4	• Elective
ECE	5760	Embedded System Design with FPGAs	4	• Elective
ECE	5770	GPU Accelerated Computing	4	• Elective
ECE	5780	Embedded Security	4	• Elective
CSI	5130	Artificial Intelligence	4	• Elective

CSI	5110	Foundations of Edge AI	4	• Elective
CSI	5580	AI for Cybersecurity & Privacy	4	• Elective

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Electrical Engineering/Mechatronics and Robotics Engineering

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Electrical Engineering/ Mechatronics and Robotics Engineering	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Electrcl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

Summer Semesters

0

Requirements

Program Requirements

The Combined BSE/MS in Electrical Engineering (BSE) and Mechatronics and Robotics Engineering (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Electrical Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in EE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Mechatronics and Robotics Engineering. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which

courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Electrical Engineering, B.S.E/Mechatronics and Robotics Engineering, M.S. option, students must:

1. Have achieved Major Standing in Electrical Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Electrical Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Subject	Number	Title	Credits	Undergraduate requirement (Each course can only be on one)
ECE	5130	Microelectronic Materials and Devices	4	• Key Courses: Electronic • Free Elective: • Required: Microelec Concentration
ECE	5132	VLSIC Design of Digital Chips	4	• Elective: Electronic • Free Elective: • Required: Microelec Concentration
ECE	5134	Fundamentals of MEMS	4	• Elective: Electronic, Bioinstrum and Biosig Processin, Mechatron Concentration, Microelec Concentration • Free Elective:
ECE	5135	Microelectronic Fabrication Technologies	4	• Elective: Electronic • Free Elective: • Required: Microelec Concentration
ECE	5137	High-Frequency Electronics	4	• Elective: Electromag • Free Elective:
ECE	5310	Antennas	4	• Elective: Electromag • Free Elective:
ECE	5320	Electromagnetic Compatibility	4	• Elective: Electromag • Free Elective:
ECE	5404	Linear Systems and Controls	4	• Elective: (• Free Elective:

ECE	5500	Robotic Systems and Control	4	• Key courses: Robotics • Free Elective: • Fundamental Course: Robotics Concentration
ECE	5510	Machine Vision	4	• Elective: Robotics, Mechatron Concentration • Free Elective: • Fundamental Course: Robotics Concentration
ECE	5520	Automotive Mechatronics I	4	• Elective: Robotics, Automotive Electrifica Concentration, Robotics Concentration • Free Elective:
ECE	5551	Human Robot Interaction	4	• Elective: Robotics Concentration • Free Elective:
ECE	5600	Fundamentals of AC Motor Design	4	• Fundamental Course: Automotive Electrifica Concentration
ECE	5620	Electrical Energy Systems	4	• Elective: Robotics, Systems • Free Elective: • Required: Robotics and Energy Systems Concentration

ECE	5630	Electric and Hybrid Drive Systems	4	• Elective: F Systems, and Energ Systems Concentra • Free Elect • Fundame • Course: Automoti Electrifica Concentra
ECE	5640	Battery Management Systems	4	• Fundame • Course: Automoti Electrifica Concentra • Elective: F and Energ Systems Concentra
ECE	5710	Computer Hardware Design	4	• Elective: (Engineerin Microelec Concentra • Free Elect
ECE	5721	Embedded Systems Design	4	• Elective: (Engineerin • Free Elect • Fundame • Courses: Mechatron Concentra
ECE	5772	High Performance Embedded Programming	4	• Elective: (Engineerin • Free Elect
ECE	5810	Quantum Computer Design	4	• Elective: (Engineerin • Free Elect
ME	5535	Introduction to Electric Drive Vehicle Engineering	4	• Elective: Automoti Electrifica Concentra

ME	5545	Fundamentals of Battery Systems for Hybrid & Electric Vehicles	4	• Elective: Automoti Electrifica Concentra
ME	5530	Renewable Energy	4	• Elective: F and Energ Systems Concentra

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Japanese Language and Literature/ Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Japanese Language and Literature/Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined Japanese Language and Literature, B.A./Court Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Court Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any 2 courses that fulfill the Japanese Language and Literature B.A., with the exception of **JPN3140 Japanese Grammar and Reading**, **JPN3550 Translation: Japanese**, **JPN3700 Intro to Japanese Literature**, and **JPN4200 Modern/Contemp Japanese Lit**, which would still be required. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Science/Software Engineering and Information Technology

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BS, MS	Computer Science/ Software Engineering and Information Technology	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science (EG)

Department(s)

Computer Science & Engineering

Credit Total

148

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

The Combined BS/MS in Computer Science (BS) and Software Engineering and Information Technology (MS) is a combined bachelor/master degree program that provides students an opportunity to complete a bachelor's and master's degree in less time than would be required if the two degrees were done independently.

Students accepted for the BS/MS Program must have a minimum overall undergraduate GPA of 3.2. Students may apply to the BS/MS Program and be offered deferred admission to the graduate program during their junior year.

It is important that students register for the 12 credits of 5000-level classes that are double counted in order to satisfy the electives requirement for the Computer Science major as well as get credit towards the BS/MS Program. Any 5000-level CSI courses that are cross-listed with 4000-level CSI courses, with the approval of the CSE academic programs coordinator, will meet the requirement. If students take the 4000-level courses, those courses cannot be counted for the BS/MS degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree

requirements. At that time, students who have maintained an overall undergraduate GPA 3.2 and have earned a 3.0 or above GPA in the double-counted graduate courses, will be reclassified as a graduate student through the Graduate School.

To be eligible for the Computer Science/Software Engineering and Information Technology, Combined B.S./M.S. option, students must:

1. Have a major GPA of 3.2 or above.
2. Apply for and receive delayed admission in the M.S. program and thereby the double-counting of three graduate classes (12 credits)
3. Maintain a minimum 3.2 cumulative GPA to completion of the degree in **Computer Science**.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Computer Engineering/Embedded Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Computer Engineering/ Embedded Systems	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science
(EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined BSE/MS in Computer Engineering (BSE) and Embedded Systems (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Computer Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in CE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count

towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Computer Engineering, B.S.E/Embedded Systems, M.S. options, students must:

1. Have achieved Major Standing in Computer Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Computer Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Please note that the graduate program in Embedded Systems only allows for one 4-credit elective course.

Subject	Number	Title	Credits	Undergraduate requirement met (Each course can only meet one)
ECE	5710	Computer Hardware Design	4	• Required Professional Subject
ECE	5721	Embedded Systems Design	4	• Required Professional Subject
ECE	5130	Microelectronic Materials and Devices	4	• Elective
ECE	5132	VLSIC Design of Digital Chips	4	• Elective
ECE	5134	Fundamentals of MEMS	4	• Elective
ECE	5137	High-Frequency Electronics	4	• Elective
ECE	5404	Linear Systems and Controls	4	• Elective
ECE	5500	Robotic Systems and Control	4	• Elective
ECE	5510	Machine Vision	4	• Elective
ECE	5520	Automotive Mechatronics I	4	• Elective
ECE	5551	Human Robot Interaction	4	• Elective
ECE	5600	Fundamentals of AC Motor Design	4	• Elective
ECE	5620	Electrical Energy Systems	4	• Elective
ECE	5640	Battery Management Systems	4	• Elective
ECE	5772	High Performance Embedded Programming	4	• Elective

ECE	5810	Quantum Computer Design	4	• Elective
ECE	5740	Embedded Artificial Intelligence	4	• Elective
ECE	5760	Embedded System Design with FPGAs	4	• Elective
ECE	5770	GPU Accelerated Computing	4	• Elective
ECE	5780	Embedded Security	4	• Elective
CSI	5130	Artificial Intelligence	4	• Elective
CSI	5110	Foundations of Edge AI	4	• Elective
CSI	5580	AI for Cybersecurity & Privacy	4	• Elective

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Electrical Engineering/Embedded Systems

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BSE, MS	Electrical Engineering/ Embedded Systems	Major

Program Type

Combined Program

College/School

School of Engineering and Computer Science
(EG)

Department(s)

Electrl & Comptr Engineering

Credit Total

153

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined BSE/MS in Electrical Engineering (BSE) and Embedded Systems (MS) allows 8-credits of 5000 level courses to be counted towards both the undergraduate and graduate degree.

Students who have achieved major standing in BSE in Electrical Engineering wishing to enroll in the combined program at the end of their sophomore year are required to have a minimum cumulative GPA of 3.4 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their junior year.

Students who have achieved major standing in BSE in EE wishing to join the program after their junior year are required to have a minimum cumulative GPA of 3.2 and meet the admission requirements to the graduate degree in MS in Embedded Systems. Students satisfying these requirements are eligible to apply to the combined program and be offered deferred admission to the graduate program at the beginning of their senior year.

After receiving deferred admission to the graduate program, students can enroll in 8-credits of cross-listed 5000-level courses that will be double counted to both satisfy the undergraduate and graduate degrees. A table is provided below to help students decide which courses to double count. The table provides a list of all cross-listed courses in the program with information on how they can count

towards both the undergraduate and graduate degrees. Each course can only satisfy one requirement in the undergraduate degree and one requirement in the graduate degree.

Students offered deferred admission will remain classified as undergraduates until they have completed all undergraduate degree requirements. At that time, students who have maintained an overall undergraduate GPA 3.0 and have earned a B or better in each double-counted graduate course, will be reclassified as graduate students through the Graduate School.

To be eligible for the Electrical Engineering, B.S.E/Embedded Systems, M.S. option, students must:

1. Have achieved Major Standing in Electrical Engineering
2. Have a cumulative GPA of 3.4, if applying in their sophomore year.
3. Have a cumulative GPA of 3.0, if applying in their junior year.
4. Apply for and received delayed admission to the M.S. program before taking any of the double-counted graduate courses. Maximum double-counting is 8 credits.
5. Maintain a minimum 3.0 cumulative GPA to completion of the degree in Electrical Engineering, B.S.E.
6. Achieve a B or better in each 5000-level course for it to be counted towards the M.S. program.

Table of Cross-listed Courses eligible for double-counting

Please note the Embedded Systems graduate program only allows for a single 4-credit elective course.

Object	Number	Title	Credits	Undergraduate requirements met (Each course can only meet one)
ECE	5130	Microelectronic Materials and Devices	4	• Key Course: Electronics • Free Elective • Required: Microelectronic Concentratic
ECE	5132	VLSIC Design of Digital Chips	4	• Elective: Electronics • Free Elective • Required: Microelectronic Concentratic
ECE	5134	Fundamentals of MEMS	4	• Elective: Electronics, Bioinstrumentation and Biosignal Processing, Mechatronic Concentratic, Microelectronic Concentratic • Free Elective
ECE	5135	Microelectronic Fabrication Technologies	4	• Elective: Electronics • Free Elective • Required: Microelectronic Concentratic
ECE	5137	High-Frequency Electronics	4	• Elective: Electromagnetic • Free Elective
ECE	5310	Antennas	4	• Elective: Electromagnetic • Free Elective
ECE	5320	Electromagnetic Compatibility	4	• Elective: Electromagnetic • Free Elective
ECE	5404	Linear Systems and Controls	4	• Elective: Control • Free Elective

ECE	5500	Robotic Systems and Control	4	• Key course: Robotics • Free Elective • Fundamental Course: Robotic Concentratic
ECE	5510	Machine Vision	4	• Elective: Robotic Mechatronic Concentratic • Free Elective • Fundamental Course: Robotic Concentratic
ECE	5520	Automotive Mechatronics I	4	• Elective: Robotic Automotive Electrification Concentratic, Robotics Concentratic • Free Elective
ECE	5551	Human Robot Interaction	4	• Elective: Robotic Robotics Concentratic • Free Elective
ECE	5600	Fundamentals of AC Motor Design	4	• Fundamental Course: Automotive Electrification Concentratic
ECE	5620	Electrical Energy Systems	4	• Elective: Power Systems • Free Elective • Required: Power and Energy Systems Concentratic
ECE	5630	Electric and Hybrid Drive Systems	4	• Elective: Power Systems, Power and Energy Systems Concentratic • Free Elective • Fundamental Course: Automotive Electrification Concentratic

ECE	5640	Battery Management Systems	4	• Fundamental Course: Automotive Electrification Concentration • Elective: Power and Energy Systems Concentration
ECE	5710	Computer Hardware Design	4	• Elective: Core Engineering, Microelectronic Concentration • Free Elective
ECE	5721	Embedded Systems Design	4	• Elective: Core Engineering • Free Elective • Fundamental Courses: Mechatronic Concentration
ECE	5772	High Performance Embedded Programming	4	• Elective: Core Engineering • Free Elective
ECE	5810	Quantum Computer Design	4	• Elective: Core Engineering • Free Elective

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

English Language Arts for Educators/Teaching in Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MAT	English Language Arts for Educators/Teaching in Secondary Education	Major

Program Type
Combined Program

College/School
College of Arts and Sciences (AS), School of Education and Human Services (ED)

Department(s)
English, Creative Wrtg, & Film

Credit Total	Delivery Method	Required Semesters
145	In Person	1

Requirements

Program Requirements

Requirements for the English Language Arts for Educators, BA/Teaching in Secondary Education, MA, Combined BA/MAT

The Combined BA/MAT at Oakland University is a Bachelor of Arts (BA) granted by the College of Arts and Sciences to Master of Arts in Teaching in Secondary Education (MAT) granted by the School of Education and Human Services. This program leads to recommendation for Michigan teacher certification in secondary education. At the undergraduate level, the combined BA/MAT program allows students to take four graduate level courses **SED5000 Foundations 1**, **SED5100 Teaching for Diversity, Equity, SED5110 Instruction 1**, and **SED5150 How People Learn** while still an undergraduate and pay undergraduate tuition rates.

To earn a combined BA/MAT and be eligible for certification, students must complete the English Language Arts for Educators, BA and the courses listed below:

Fall

- **SED5000 Foundations 1** Foundations 1: Introduction to Secondary Education
- **SED5150 How People Learn** How People Learn (3)

Winter

- **SED5100 Teaching for Diversity, Equity Teaching for Diversity, Equity and Inclusion (3)**
- **SED5110 Instruction 1 Instruction I: Introduction to Secondary Methods (3)**

Fall

- **RDG5558 Disciplinary Literacies Disciplinary Literacy (3)**
- **SED5210 Instruction 2: Methods in Disc Instruction 2: Methods in the Discipline (3)**
- **SED5600 Foundations 2 Foundations 2: Supporting learning through Skillful Teaching (3)**
- **TD5955 Internship/Secondary Ed Student Teaching Internship A (2)**

Winter

- **SED5650 Foundations 3 Foundations 3: Developing as a Professional (3)**
- **SED5955 Student Teaching Internship Student Teaching (6)**

Summer

- **SED6000 Instruction 3: Adv Instruction Instruction 3: Advanced Instruction (3) (Required course taken post full year internship)**
- **SE5500 The Exceptional Student The Exceptional Student (2)**

Requirements for application to the combined BA/MAT

Students are eligible to apply to the combined BA/MAT program once they have successfully completed the required pre-professional and pre-program content coursework, which requires having met the following criteria:

Complete the Graduate Application and receive delayed admission into the MAT program due by May 1st of each year. (Late applications will be considered with discretion.) Complete a minimum of 24 credits in the English Language Arts for Educators major and have a cumulative GPA of at least 3.0.

Additional department application requirements:

- Goal statement
- Resume (Curriculum Vitae)
- One recommendation (must be from individuals in a supervisory relationship to the applicant, using the e-form provided by the Graduate School)
- Felony Misdemeanor Disclosure Form
- Michigan Code of Educational Ethics Acknowledgement Form

NOTE: Individual interviews may be conducted in addition to these requirements.

For additional information please contact Anthony Tuf Francis (akfranci@oakland.edu) in the **School of Education** 485G Pawley Hall at (248) 370-2491.

To successfully complete the program and earn a Masters of Arts in Teaching in Secondary Education, students must meet each of the requirements outlined below:

- Complete the required undergraduate, major specific courses with a C or better
- Complete the 37-credit graduate level courses professional sequence with a grade of B or higher in each course and fulfill the 600 field hour requirement
- Professional courses may not be older than six years upon graduation
- To be eligible for a Michigan Teaching Certificate, graduates must be in compliance with all legal curricular requirements.

Additional Information

Students enrolled in the previous Secondary Teacher Education Program (STEP) programs will have the option to complete their current program or transition into the BA/MAT in Secondary Education through the expiration of the current Michigan teacher certification requirements in the 2028-2029 academic year.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Integrated Science/Teaching in Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MAT	Integrated Science/Teaching in Secondary Education	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS), School of Education and Human Services (ED)

Department(s)

Teaching and Learning, Physics

Credit Total

145

Delivery Method Required

In Person

Summer Semesters
1

Requirements

Program Requirements

Requirements for the Integrated Science, BA/Teaching in Secondary Education, MAT, Combined B.A./MAT

The Combined BA/MAT at Oakland University is a Bachelor of Arts (BA) granted by the College of Arts and Sciences to Master of Arts in Teaching in Secondary Education (MAT) granted by the School of Education and Human Services. This program leads to recommendation for Michigan teacher certification in secondary education. At the undergraduate level, the combined B.A./MAT program allows students to take four graduate level courses **SED5000 Foundations 1**, **SED5150 How People Learn**, **SED5110 Instruction 1**, and **SED5150 How People Learn** while still an undergraduate and pay undergraduate tuition rates.

To earn a combined BA/MAT and be eligible for certification, students must complete the Integrated Science, BA and the courses listed below:

Fall

- **SED5000 Foundations 1** Foundations 1: Introduction to Secondary Education (3)
- **SED5150 How People Learn** How People Learn (3)

Winter

- **SED5100 Teaching for Diversity, Equity** Teaching for Diversity, Equity and Inclusion (3)
- **SED5110 Instruction 1** Instruction I: Introduction to Secondary Methods (3)

Fall

- **RDG5558 Disciplinary Literacies** Disciplinary Literacy (3)
- **SED5210 Instruction 2: Methods in Disc** Instruction 2: Methods in the Discipline (3)
- **SED5600 Foundations 2** Foundations 2: Supporting learning through Skillful Teaching (3)
- **TD5955 Internship/Secondary Ed** Student Teaching Internship A (2)

Winter

- **SED5650 Foundations 3** Foundations 3: Developing as a Professional (3)
- **SED5955 Student Teaching Internship** Student Teaching (6)

Summer

- **SED6000 Instruction 3: Adv Instruction** Instruction 3: Advanced Instruction (3) (Required course taken post full year internship)
- **SE5500 The Exceptional Student** The Exceptional Student (2)

Requirements for application to the combined BA/MAT

Students are eligible to apply to the combined B.A./MAT program once they have successfully completed the required pre-professional and pre-program content coursework, which requires having met the following criteria:

Complete the Graduate Application and receive delayed admission into the MAT program due by May 1st of each year. (Late applications will be considered with discretion.) Complete a minimum of 24 credits in the Integrated Science major and have a cumulative GPA of at least 3.0.

Additional department application requirements:

- Goal statement
- Resume (Curriculum Vitae)
- One recommendation (must be from individuals in a supervisory relationship to the applicant, using the e-form provided by the Graduate School)
- Felony Misdemeanor Disclosure Form
- Michigan Code of Educational Ethics Acknowledgement Form

NOTE: Individual interviews may be conducted in addition to these requirements.

For additional information please contact Anthony Tuf Francis (akfranci@oakland.edu) in the School of Education 485G Pawley Hall at (248) 370-2491.

To successfully complete the program and earn a Masters of Arts in Teaching in Secondary Education, students must meet each of the requirements outlined below:

- Complete the required undergraduate, major specific courses with a grade of C or higher.
- Complete **WRT1060 Composition II** and **SED1000 Careers in Teaching and Learning** with a grade of B or better.
- Complete the 37-credit graduate level courses professional sequence with a grade of B or higher in each course and fulfill the 600 field hour requirement.
- Professional courses may not be older than 6 years upon graduation.
- To be eligible for a Michigan Teaching Certificate, graduates must be in compliance with all legal requirements.

Additional Information

Students enrolled in the previous Secondary Teacher Education Program (STEP) programs will have the option to complete their current program or transition into the B.A./MAT in Secondary Education through the expiration of the current Michigan teacher certification requirements in the 2028-2029 academic year.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mathematics for Educators/Teaching in Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BS, MAT	Mathematics for Major Educators/ Teaching in Secondary Education	

Program Type

Combined Program

College/School

College of Arts and Sciences (AS), School of Education and Human Services (ED)

Department(s)

Mathematics and Statistics

Credit Total

145

Delivery Method Required

In Person

Summer Semesters
0

Requirements

Program Requirements

Requirements for the Mathematics for Educators, BS/Teaching in Secondary Education, MA, Combined BS/MAT

The Combined BS/MAT at Oakland University is a Bachelor of Science (BS) granted by the College of Arts and Sciences to Master of Arts in Teaching in Secondary Education (MAT) granted by the School of Education and Human Services. This program leads to recommendation for Michigan teacher certification in secondary education. At the undergraduate level, the combined BS/MAT program allows students to take four graduate level courses SED 5000, SED 5100, SED 5110 and SED 5150 while still an undergraduate and pay undergraduate tuition rates.

To earn a combined BS/MAT and be eligible for certification, students must complete the Mathematics for Educators, BS and the courses listed below:

Fall

- **SED 5000 Foundations 1: Introduction to Secondary Education (3)**
- **SED 5150 How People Learn (3)**

Winter

- SED 5100 Teaching for Diversity, Equity and Inclusion (3)
- SED 5110 Instruction I: Introduction to Secondary Methods (3)

Fall

- RDG 5558 Disciplinary Literacy (3)
- SED 5150 How People Learn (3)
- SED 5210 Instruction 2: Methods in the Discipline (3)
- SED 5600 Foundations 2: Supporting learning through Skillful Teaching (3)
- TD 5955 Student Teaching Internship A (2)

Winter

- SED 5650 Foundations 3: Developing as a Professional (3)
- SED 5955 Student Teaching (6)

Summer

- SED 6000 Instruction 3: Advanced Instruction (3)
(Required course taken post full year internship)
- SE 5500 The Exceptional Student (2)

Requirements for application to the combined BS/MAT

Students are eligible to apply to the combined BS/MAT program once they have successfully completed the required pre-professional and pre-program content coursework, which requires having met the following criteria:

Complete the Graduate Application and receive delayed admission into the MAT program due by May 1st of each year. (Late applications will be considered with discretion.) Complete a minimum of 24 credits in the Mathematics for Educators major and have a cumulative GPA of at least 3.0.

Additional department application requirements:

- Goal statement
- Resume (Curriculum Vitae)
- One recommendation (must be from individuals in a supervisory relationship to the applicant, using the e-form provided by the Graduate School)
- Felony Misdemeanor Disclosure Form
- Michigan Code of Educational Ethics Acknowledgement Form

NOTE: Individual interviews may be conducted in addition to these requirements.

For additional information please contact Anthony Tuf Francis (akfranci@oakland.edu) in the **School of Education** 485G Pawley Hall at (248) 370-2491.

To successfully complete the program and earn a Masters of Arts in Teaching in Secondary Education, students must meet each of the requirements outlined below:

- Complete the required undergraduate, major specific courses with a C or better
- Complete the 37-credit graduate level courses professional sequence with a grade of B or higher in each course and fulfill the 600 field hour requirement
- Professional courses may not be older than six years upon graduation
- To be eligible for a Michigan Teaching Certificate, graduates must be in compliance with all legal curricular requirements.

Additional Information

Students enrolled in the previous Secondary Teacher Education Program (STEP) programs will have the option to complete their current program or transition into the BS/MAT in Secondary Education through the expiration of the current Michigan teacher certification requirements in the 2028-2029 academic year.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Mathematics for Educators/Teaching in Secondary Education

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, MAT	Mathematics for Major Educators/ Teaching in Secondary Education	

Program Type

Combined Program

College/School

College of Arts and Sciences (AS), School of Education and Human Services (ED)

Department(s)

Mathematics and Statistics

Credit Total

145

Delivery Method Required

In Person

Summer Semesters

1

Requirements

Program Requirements

Requirements for the Mathematics for Educators, BA/Teaching in Secondary Education, MAT, Combined BA/MAT

The Combined BA/MAT at Oakland University is a Bachelor of Arts (BA) granted by the College of Arts and Sciences to Master of Arts in Teaching in Secondary Education (MAT) granted by the School of Education and Human Services. This program leads to recommendation for Michigan teacher certification in secondary education. At the undergraduate level, the combined BA/MAT program allows students to take 4 graduate level courses **SED5000 Foundations 1**, **SED5100 Teaching for Diversity, Equity**, **SED5110 Instruction 1**, and **SED5150 How People Learn** while still an undergraduate and pay undergraduate tuition rates.

To earn a combined BA/MAT and be eligible for certification, students must complete the Mathematics for Educators, BA and the courses listed below:

Fall

- **SED5000 Foundations 1** Foundations 1: Introduction to Secondary Education (3)

- **SED5150 How People Learn** How People Learn (3)

Winter

- **SED5100 Teaching for Diversity, Equity** Teaching for Diversity, Equity and Inclusion (3)
- **SED5110 Instruction 1** Instruction I: Introduction to Secondary Methods (3)

Fall

- **RDG5558 Disciplinary Literacies** Disciplinary Literacy (3)
- **SED5210 Instruction 2: Methods in Disc** Instruction 2: Methods in the Discipline (3)
- **SED5600 Foundations 2** Foundations 2: Supporting learning through Skillful Teaching (3)
- **TD5955 Internship/Secondary Ed** Student Teaching Internship A (2)

Winter

- **SED5650 Foundations 3** Foundations 3: Developing as a Professional (3)
- **SED5955 Student Teaching Internship** Student Teaching (6)

Summer

- **SED6000 Instruction 3: Adv Instruction** Instruction 3: Advanced Instruction (3) (Required course taken post full year internship)
- **SE5500 The Exceptional Student** The Exceptional Student (2)

Requirements for application to the combined BA/MAT

Students are eligible to apply to the combined BA/MAT program once they have successfully completed the required pre-professional and pre-program content coursework, which requires having met the following criteria:

Complete the Graduate Application and receive delayed admission into the MAT program due by May 1st of each year. (Late applications will be considered with discretion.) Complete a minimum of 24 credits in the Mathematics for Educators major and have a cumulative GPA of at least 3.0.

Additional department application requirements:

- Goal statement
- Resume (Curriculum Vitae)
- One recommendation (must be from individuals in a supervisory relationship to the applicant, using the e-form provided by the Graduate School)
- Felony Misdemeanor Disclosure Form

- Michigan Code of Educational Ethics Acknowledgement Form

NOTE: Individual interviews may be conducted in addition to these requirements.

For additional information please contact Anthony Tuf Francis (akfranci@oakland.edu) in the **School of Education** 485G Pawley Hall at (248) 370-2491.

To successfully complete the program and earn a Masters of Arts in Teaching in Secondary Education, students must meet each of the requirements outlined below:

- Complete the required undergraduate, major specific courses with a C or better
- Complete the 37-credit graduate level courses professional sequence with a grade of B or higher in each course and fulfill the 600 field hour requirement
- Professional courses may not be older than 6 years upon graduation
- To be eligible for a Michigan Teaching Certificate, graduates must be in compliance with all legal curricular requirements.

Additional Information

Students enrolled in the previous Secondary Teacher Education Program (STEP) programs will have the option to complete their current program or transition into the BA/MAT in Secondary Education through the expiration of the current Michigan teacher certification requirements in the 2028-2029 academic year.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Political Science /Court Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	Political Science /Court Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Political Science

Credit Total

126

Delivery Method Required

In Person

**Summer
Semesters**
0

Requirements

Program Requirements

The Combined Political Science, B.A./Court Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in Political Science and a Graduate Certificate in Court Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace 2 4-credit PS electives. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 24 credits including 2 upper-level courses of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Spanish Language and Literature/Court Administration

General

Program Level	Program Title	Field of Study
UG	Spanish Language and Literature/Court Administration	Type Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures

Credit Total

126

Delivery Method

In Person

Required

Summer

Semesters

0

Major Dependent Concentration(s)

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

Interdisciplinary Studies/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG	BIS, GC	Interdisciplinary Studies/Health Care Administration	Major

Program Type

Combined Program

College/School

All Colleges (99)

Department(s)

Bach Interdisciplinary Studies

Credit Total

126

Delivery Method Required

In Person

Summer
Semesters

0

Requirements

Program Requirements

The Combined B.I.S./Health Care Administration Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.I.S. and a Graduate Certificate in Health Care Administration.

Students admitted to this combined program can take 6 credits of graduate-level courses while still an undergraduate and pay undergraduate tuition rates. Within the B.I.S. requirements, these 6 credits would replace 6 credits of the required 32 credits at the 3000 or 4000 level. Students would still be required to complete **BIS3000 Intro to Interdiscipl Studies** and **BIS4930 Interdisciplinary Research**.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 4 courses at the 3000 or 4000 level and;
- Apply for and receive delayed admission to the Graduate Certificate.
- Maintain a minimum 3.0 cumulative grade point average at completion of the B.I.S. and gain formal admission into the Graduate Certificate program.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration Declaration

Major Dependent Concentrations are not available for this program

French Language and Literature/Health Care Administration

General

Program Level	Degree Designation	Program Title	Field of Study Type
UG, GR	BA, GC	French Language and Literature/ Health Care Administration	Major

Program Type

Combined Program

College/School

College of Arts and Sciences (AS)

Department(s)

Modern Languages & Literatures, Political Science

Credit Total	Delivery Method	Required Semesters
126	In Person	Summer 0

Requirements

Program Requirements

The Combined French Language and Literature, B.A./Health Care Administration, Graduate Certificate option is designed for high achieving undergraduate students pursuing a B.A. in a world language who wish to pursue a career in Health Care Administration.

Students admitted to this combined program can take any 6 credits of graduate-level courses from the graduate certificate while still an undergraduate and pay undergraduate tuition rates. Within the B.A. requirements, these 6 credits would replace any two courses that fulfill the French Language and Literature B.A. However, one 4000 level course from following is still required: **FRH4160 French Lit/Mid Ages-16th Cent**, **FRH4170 French Lit-17th and 18th Cent**, **FRH4190 French Literature-19th Cent**, **FRH4200 Modern/Contemp French Lit**, or **FRH4970 Undergraduate Seminar**. For students pursuing this B.A./certificate program, students do not need to compensate for the 2-credit difference in the major.

To be eligible for the combined BA to Graduate Certificate option, students must

- Have earned a minimum cumulative grade point average of 3.2 or higher and;
- Completed at least 3 upper-level classes of the undergraduate program major courses;
- Apply for and receive delayed admission to the Graduate Certificate.

Note: Students must receive formal delayed admission into the Graduate Certificate program to be eligible to register for graduate courses in the Graduate Certificate program.

Major Dependent Concentration(s)

Major Dependent Concentration Declaration
Major Dependent Concentrations are not available for this program

All Courses

ACC 5050 Business Law for Acctg & Finan

Course Info

Course Title
Business Law for Accounting & Finance

Course Description
The course covers numerous areas of law that are important in the context of business entities operating in the United States. It generally will cover topics suggested for business law on the Uniform CPA Exam not covered in a general business law course.

Equivalent Courses
ACC505

College/School
School of Business Admin.

Department
Accounting & Finance

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ACC 5110 Financial Accounting

Course Info

Course Title
Financial Accounting

Course Description
Focus is on financial accounting for external reporting: communications addressed to shareholders, government agencies, potential investors and the public. Previously ACC 511.

Equivalent Courses
ACC511

College/School
School of Business Admin.

Department
Accounting & Finance

Credits

Credit Hours	
Units:	Credit Hours
2	Max:
	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ACC 5120 Managerial Accounting Systems

Course Info

Course Title
Managerial Accounting Systems

Course Description
Emphasizes recording, reporting and the use of data within the enterprise. Cost accounting, budgeting and internal control systems are covered. Formerly ACC 512. Prerequisites: Student must have PC skills proficiency and have completed ACC 5110 or an equivalent course.

Equivalent Courses
ACC512

College/School
School of Business Admin.

Department
Accounting & Finance

Credits

Credit Hours

Units:	Credit Hours Max:
2	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ACC 5150 Principles of Taxation

Course Info

Course Title
Principles of Taxation

Course Description
This introduction to taxation covers both business and individual taxation, but emphasizes business impacts of the tax law. The focus is on how managers and individuals use tax information to make decisions, especially those affecting investing and after-tax wealth management. It also leverages students' financial and managerial accounting backgrounds to better understand and reconcile taxable income with externally and internally reported accrual and cash flow measures of income. Formerly ACC 515 Prerequisite(s): Student must be admitted to the Master of Accounting program

Equivalent Courses
ACC515

College/School
School of Business Admin.

Department
Accounting & Finance

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	3

ACC 5180 Accounting Information Systems

Course Info

Course Title

Accounting Information Systems: Planning and Analysis

Course Description

This course focuses on business modeling, data analytics and the integration of accounting systems with other information systems in the organization. In doing so, it emphasizes business risk as well as information technology risk and the controls that are available over both. Students should be capable of using the analytics and modeling skills acquired in this course in order to help analyze and develop modern, technologically relevant accounting information systems. Prerequisite(s): Student must be admitted to the Master of Accounting program.

Equivalent Courses

ACC518

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

ACC 5210 Income Tax II

Course Info

Course Title

Income Tax II: US Taxation of Alternative Business Structures

Course Description

Course will provide an overview of the most critical tax concepts that apply to business operations in the US. For businesses structured as taxable corporations, this will include analysis of federal taxes as they apply to the formation, operation, restructuring and liquidation of corporations. For businesses structured as flow-through entities, a parallel analysis of federal taxes will be studied. Individual federal tax concepts that apply to owners of business entities will be an important aspect. Prerequisite(s): Student must be admitted to the Master of Accounting program.

Equivalent Courses

ACC521

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

ACC 5220 Auditing

Course Info

Course Title

Auditing

Course Description

The primary objective of this course is to introduce the basic concepts underlying the audit process, the process of collecting audit evidence and the required communications of the auditor. A systematic approach will be taken with the primary emphasis on understanding why and how financial statement audits are performed. A student will be introduced to the Generally Accepted Auditing Standards issued by the AICPA in the form of SAS's and the PCAOB's Auditing Standards. The important emerging area of audit data analytics and data visualization will be addressed throughout the course.

Equivalent Courses

ACC522

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

2

Maximum Hours

3

ACC 5240 Government/Not-for-Profit
Acct

Course Info

Course Title

Government and Not-for-Profit Accounting

Course Description

The characteristics of not-for-profit entities are analyzed and used to define the basic concepts of accounting for funds. Accounting and reporting principles applicable to governmental units, hospitals, schools and other nonprofit entities are discussed. Formerly ACC 524. Student must be admitted to the Master of Accounting program.

Equivalent Courses

ACC524

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

2

Maximum Hours

3

ACC 5260 AIS: Audit and Control

Course Info

Course Title

Accounting Information Systems: Audit and Control

Course Description

This course deals with audit and control aspects of information systems. Students will study the risks, controls, audit techniques and computer fraud detection techniques related to key information systems areas and will perform audit tests and fraud prevention and detection procedures. Formerly ACC 526. Prerequisite: Student must have completed a course in accounting information systems and auditing.

Equivalent Courses

ACC526

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 5310 Advanced Financial Accounting

Course Info

Course Title

Advanced Financial Accounting

Course Description

Topics include accounting and reporting for business combinations, partnerships, consolidated entities, interim financial statements and segments of business enterprises. Formerly ACC 531. Prerequisite: Student must be admitted to the Master of Accounting program.

Equivalent Courses

ACC531

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	3

ACC 5500 Tax Research, Planning and Adm

Course Info

Course Title

Tax Research, Planning and Administration

Course Description

Tax research will include an analysis and instruction in tax research techniques, materials and methodology used to practice in the field of taxation. This will be a "hands on" experience, with several research challenges assigned, requiring use of tax research tools by the student. Tax planning will include an analysis of selected opportunities to add significant value through tax planning in business and/or personal situations, such as corporation vs partnership structures, cross-border planning opportunities, estate & gift planning, etc. Tax administration will include coverage of professional standards, ethics and IRS matters. Formerly ACC 550. Prerequisites: ACC 3500 or ACC 5150 or an equivalent course.

Equivalent Courses

ACC550

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ACC 5520 International Tax

Course Info

Course Title

International Tax

Course Description

The study of U.S. taxation of transactions undertaken by foreign individuals or entities in the U.S., as well as the U.S. taxation of transactions undertaken by U.S. individuals or entities abroad. This course will also address the various reporting requirements for U.S. persons with assets located outside the U.S. Formerly ACC 552. Prerequisite: ACC 5210 or an equivalent course.

Equivalent Courses

ACC552

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	3

ACC 6000 Financial Reporting & Analysis

Course Info

Course Title
Financial Reporting and Analysis

Course Description
An application of financial accounting and reporting from the perspective of financial analysts. The course will discuss and apply data analytics tools in financial reporting analysis with cases of real-world examples. Formerly ACC 600. Prerequisites: ACC 5120 or equivalent course and FIN 5330 or equivalent course.

Equivalent Courses
ACC600

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:
3

ACC 6010 Financial Analysis & Valuation

Course Info

Course Title
Financial Analysis and Valuation

Course Description
This course introduces an analytical framework to carry out business analysis and valuation by using information provided in financial reports in conducting strategic, financial & cash flow, accounting, and prospective & valuation analyses of a firm. The course covers data analytics tools and introduces models that incorporate governance and risk factors to estimate the equity value of a firm and produce analyst reports on the firm.

Equivalent Courses
ACC601

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ACC 6170 Int'l Fin Actg Stndards & Rptg

Course Info

Course Title

International Financial Accounting Standards and Reporting

Course Description

A comprehensive study of International Financial Reporting Standards (IFRS). This course includes a review of current developments in the process of convergence with US GAAP and the implications an entity will experience when adopting IFRS. The functions of the International Accounting Standards Board and its subcommittees will be addressed. The cultural, historical and political reasons for international accounting practices will be reviewed. Students will research financial accounting issues in IFRS and in US GAAP. This course is designed for the MAcc student who has completed the intermediate accounting sequence. Formerly ACC 617.

Equivalent Courses

ACC617

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6200 Cost Management

Course Info

Course Title

Cost Management

Course Description

This course will give the student an introduction to cost management, which is a set of techniques and methods for planning and measuring and providing feedback to improve a company's products and processes. Examples of items covered include cost issues related to product life cycle, quality, advanced technologies, strategy and customer/supplier relationships. Formerly ACC 620. Prerequisite: ACC 5120 or completion of a course in managerial accounting.

Equivalent Courses

ACC620

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6220 Audit Analytics

Course Info

Course Title

Audit Analytics

Course Description

Designed to broaden and deepen a student’s conceptual and technical understanding of the attest function from an external and internal perspective emphasizing planning, evidence collection and judgement. Provides a student with frameworks for analyzing contemporary auditing and assurance issues. Auditing expertise is developed by considering diverse situations using cases with rich data sets and contexts. Formerly ACC 622.

Equivalent Courses

ACC622

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

ACC 6250 Fed Income Taxation for Bus

Course Info

Course Title

Federal Income Taxation for Business

Course Description

Examination of the concepts of business taxation and the essential logic underlying the federal tax laws. The class will analyze individual and corporate income tax laws relating to business rather than train students to prepare current-year tax returns. Formerly ACC 625. Prerequisite: ACC 5110 or completion of a course in financial accounting.

Equivalent Courses

ACC625

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6260 Enterprise Risk Management

Course Info

Course Title

Enterprise Risk Management

Course Description

Examines theories and methods of providing assurance over corporate governance using risk modeling. Includes coverage of governance issues, risk management, examination of some business analytics and metrics and their usefulness in the evaluation of corporation goal attainment. Includes an examination of developments in information assurance as they affect corporate governance. Prerequisite: ACC 522 or an equivalent course.

Equivalent Courses

ACC626

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

ACC 6300 Accounting & Communication

Course Info

Course Title

Accounting and Communications

Course Description

The development of effective communication skills both in writing and speaking. This course offers strategies for thinking through and developing a communication plan for a variety of communication contexts in the accounting/business field. (ACC 630 can not be used as a designated accounting elective in the MBA program. It is an open elective.) Formerly ACC 630. Prerequisite: Student must be admitted to the MAcc or MBA program.

Equivalent Courses

ACC630

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6310 Fraud Examination

Course Info

Course Title

Fraud Examination

Course Description

A study of how and why fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved. The course will use cases to help students develop investigative strategies, and seek to prove how fraud was committed. Formerly ACC 631. Prerequisite: ACC 5110 or completion of a course in financial accounting.

Equivalent Courses

ACC631

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6500 Professional Issues in Acc

Course Info

Course Title

Professional Issues in Accounting

Course Description

Addresses contemporary issues that affect the accounting profession and the professional accountant, including regulation of accounting and accountants; accounting standard setting; admission to professional status; professional ethics; professional liability; and the impact of technology. Formerly ACC 650. Prerequisite: Student must be admitted to the MAcc program or have permission of the MAcc Faculty Coordinator.

Equivalent Courses

ACC650

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

ACC 6900 Special Topics in Accounting

Course Info

Course Title

Special Topics in Accounting

Course Description

An in-depth study of the application of accounting theory to a specialized accounting topic. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 9 credits. Same topic cannot be repeated. Formerly ACC 680.

Equivalent Courses

ACC680

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

1

Maximum Hours

9

ACC 6970 Independent Study/
Accounting

Course Info

Course Title

Independent Study in Accounting

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by department chair and Office of Graduate Business Programs before registration is permitted. Formerly ACC 690. Prerequisites: ACC 5120 or equivalent and must have prior approval of the instructor.

Equivalent Courses

ACC690

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status Code

RP

ACC 6995 Prof Accounting Research

Course Info

Course Title

Professional Accounting Research

Course Description

Discussion of data analytics tools available to resolve research questions concerning accounting standards and practices. Develop projects on the critical analysis of topics of current interest and importance in accounting practice. Formerly ACC 660. Prerequisite: Student must be admitted to the MAcc program or have permission of the MAcc Faculty Coordinator.

Equivalent Courses

ACC660

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

AED 5200 Methods 1: Art Ed Teach & Lear

Course Info

Course Title

Methods 1: Foundations of Art Education Teaching and Learning

Course Description

Methods 1 promotes a theory into practice approach supporting learning about art education practices. Through lectures, readings and discussion sessions, reflection, and practicum field experiences, students explore trends in art educational practice for application in PK12 visual art teaching and learning. Unit planning development centers on ideation and artful inquiry.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

AED 5300 M 2: Art Lit & Tech in Art Ed

Course Info

Course Title

Methods 2: Artful Literacies and Technology Informed Art Education

Course Description

Methods 2 develops an understanding of the inclusive practices of making art, of art literacy, and of artful technology. The interrelated practices of art making, art criticism, art history, and aesthetics are learned as vital components within the planning and delivering of units of discovery aligned with practicum field placements.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

AED 5400 Methods 3:Art Ed Inq Approach

Course Info

Course Title

Methods 3: Art Education Inquiry Approaches and Methods

Course Description

Methods 3 explores the variety of materials and methods for creating meaningful teaching and learning as lesson plan units. Students build on Prior knowledge facilitates continued skill and attitude development for visual art production and assessment. Material and art method exploration enables art production, critique, reflection, and assessment.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

AED 6200 M4: Build Community - Art
Prac

Course Info

Course Title

Methods 4: Building Community through Artful Practice

Course Description

Methods 4 explores artful inquiry as community engaged practice and service-learning. Inquiry methods will be guided by big ideas to foster artful engagement for a purpose. Students build on prior knowledge and continue to develop skills and attitudes for visual art production and assessment for age appropriate instructional use.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

2

Maximum Hours

3

AH 5900 Special Topics in Art/Art Hist

Course Info

Course Title

Special Topics in Art and Art History

Course Description

Specific topics in art history for which no regular course offerings exist. Topic will be announced before each offering.

College/School

College of Arts and Sciences

Department

Art, Art History and Design

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

2

ALS 5517 Models of Second Lang Acquis

Course Info

Course Title

Models of Second Language Acquisition

Course Description

Development of second language ability among children and adults. Topics include first language acquisition theory, the relationship of second language acquisition to linguistic theory, and review and evaluation of competing models of second language development. Formerly ALS 517.

Equivalent Courses

ALS517

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

ALS 5518 Tchng Engl to Multling Learner

Course Info

Course Title

Teaching English to Multilingual Learners

Course Description

Prepares students to teach PreK-12 Adult English Learners (ELs), by reviewing popular, innovative, widely used methods, techniques reshaping the field. Develop individual pedagogical beliefs about how language is learned and taught through discussions, projects, multimedia presentation, classroom visits, working with ELs individually and in small groups. Prerequisite(s): LIN 2201

Equivalent Courses

ALS4418, ALS518

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
4

ALS 5538 Curr, Mat Des, Assess, Compl

Course Info

Course Title

Curriculum, Material Design, Assessment and Compliance

Course Description

Investigate language assessment cycle, tools; identification, evaluation, placement of English learners (ELs) in proficiency appropriate levels/programs; apply assessment results in selection, modification, design of age-appropriate materials to meet ELs needs; investigate strategies preparing ELs for standardized tests; investigate legal obligations and impact on policies on education of ELs. This course is cross-listed with ALS 4438. Prerequisite(s): ALS 5518 or permission of instructor.

Equivalent Courses

ALS4438, ALS538

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

ALS 5589 Tchng Eng Lang Special Needs

Course Info

Course Title

Teaching English Language Learners with Special Needs

Course Description

Comprehensive information about the process of determining whether a struggling English Learner has an underlying disability or if difficulties are due to lack of language proficiency. Overview of accommodations and interventions that address the needs of at-risk non-native English speakers.

Equivalent Courses

SE5589

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

ALS 5960 Practicum

Course Info

Course Title

Practicum

Course Description

Provides a semester-long internship in an assigned ESL program under the guidance of a university instructor. Offered fall, winter and spring. Availability in spring is limited. For eligibility requirements, see Practicum Eligibility. Formerly ALS 519. Prerequisites: ALS 5518 and 5538 with a grade of B or higher and permission of instructor.

Equivalent Courses

ALS4960, ALS519

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

ALS 6530 Language Acquisition

Course Info

Course Title

Language Acquisition

Course Description

First language acquisition in children: stages of the acquisition process, the role of the environment, and the relationship between language and the development of other skills. Second language learning in children: influence of first language, age differentials, learning styles, and factors affecting second language learning. Description and evaluation of competing models of acquisition. Formerly 530.

Equivalent Courses

ALS530

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

2

ALS 6570 Language, Culture & Society

Course Info

Course Title

Language, Culture and Society

Course Description

Language in cultural and social context. Sociocultural variables in language use, in style and dialect, and in bilingual and multilingual educational situations. Comparison and interrelationship of English-speaking and linguistically diverse cultures. Effect of national/ethnic cultures on communication. Examination of role of language and nonverbal modes in intercultural communication. Formerly ALS 570.

Equivalent Courses

ALS570, ALS570P

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

2

ALS 6630 Language Pedagogy

Course Info

Course Title

Language Pedagogy

Course Description

Investigation of current methods, approaches, and techniques for teaching ESL to LEP K-12 students. Focus on actual classroom practices and activities for teaching reading, writing, listening, pronunciation, conversation, grammar, and vocabulary, and integration of techniques to reflect language use. Design of lessons and activities for each skill area of language learning. Formerly ALS 630.

Equivalent Courses

ALS630, ALS630P

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

ALS 6633 Curriculum / Assessment Design

Course Info

Course Title
Curriculum and Assessment Design

Course Description
Comprehensive information on the identification, assessment, and proficiency placement of K12 English Learners as well as the design,evaluation, and selection of age and proficiency appropriate materials. Students will investigate authentic formal and informal pre- and post-instructional assessments. Additionally, students will create, judge, and adapt their own assessment tools and classroom teaching materials based on assessment results thus connecting assessment and instruction.

Equivalent Courses
ALS6631, ALS6632

College/School
College of Arts and Sciences

Department
Linguistics

Credits
Credit Hours

Units:
4

ALS 6900 SP: Teaching Eng as Sec Lang

Course Info

Course Title
Special Topics in Teaching English as a Second Language

Course Description
Special topics in Teaching English as a Second Language. May be repeated for additional credit under different course subtitles.

College/School
College of Arts and Sciences

Department
Linguistics

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

ALS 6960 ESL Practicum

Course Info

Course Title

ESL Practicum

Course Description

Supervised experience in ESL with students at various levels (beginning, intermediate, and advanced) and ages (K-12). Graded S/U. Formerly ALS 640. Prerequisite: ALS 6630.

Equivalent Courses

ALS640, ALS640P

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

APM 5333 Numerical Methods

Course Info

Course Title

Numerical Methods

Course Description

Approximations and interpolations, propagation of errors, numerical differentiation and integration, solutions of equations, Newton's method, solutions of differential equations and initial value problems, Runge-Kutta and predictor-corrector methods. Required background includes courses in linear algebra and differential equations. APM 5333 is cross-listed with an undergraduate course, APM 4333. Student may not receive credit for both courses. Prerequisite(s): Required background includes courses in linear algebra and differential equations.

Equivalent Courses

APM533

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

APM 5334 App Num Methods: Matrix Method

Course Info

Course Title

Applied Numerical Methods: Matrix Methods

Course Description

Systems of linear equations, Gaussian elimination, LU factorization, successive over-relaxation, approximation theory, curve fitting, eigenvalue problems, iterative techniques and non-linear systems of equations, some aspects of boundary value problems and introduction to numerical solutions of partial differential equations. Required background includes courses in multi-variable calculus and linear algebra and knowledge of a scientific programming language. Cross-listed with APM 4334. Student may not receive credit for both courses. Prerequisite(s): Required background includes courses in multivariable calculus and linear algebra and knowledge of a scientific programming language.

Equivalent Courses

APM4334, APM534

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5347 Mathematics of Cryptology

Course Info

Course Title

Mathematics of Cryptology

Course Description

Classic cryptosystems (Hill, Vigen`ere, one-time-pad), divisibility, modular arithmetic and efficient operations on large integers; Practical cryptosystems (AES, RSA, DES), algebra of prime fields, prime factorization, discrete log problem, complexity theory, hash functions, birthday attacks. Modern and future cryptosystems, zero-knowledge proofs, quantum key exchange. APM 5347 is cross-listed with an undergraduate course, APM 4347. Student cannot receive credit for both courses. Prerequisite(s): CSI 5460 recommended.

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5441 Math Analysis For Engineers I

Course Info

Course Title

Mathematical Analysis for Engineers I

Course Description

Laplace transforms; linear algebra; matrices, vectors, determinants, linear systems of equations, matrix eigenvalue problems; vector differential calculus; vector integral calculus, integral theorems; Fourier series, integrals and transforms. Required background includes courses in multivariable calculus, linear algebra and differential equations. Formerly APM 541.

Equivalent Courses

APM541

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
4

APM 5442 Math Analysis For Engineers II

Course Info

Course Title

Mathematical Analysis for Engineers II

Course Description

Series solutions of differential equations, special functions, partial differential equations, complex numbers and functions, conformal mapping, complex integration, power series, Taylor and Laurent series, residue theory, potential theory. Formerly APM 542. Prerequisite: APM 5441.

Equivalent Courses

APM542

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
4

APM 5553 Adv Ordinary Diff Equations

Course Info

Course Title

Advanced Ordinary Differential Equations

Course Description

Existence and uniqueness, dependence on initial point, asymptotic behavior of solutions, periodic solutions, self-adjoint problems, stability theory, Liapunov functions, Poincare-Bendixson theory and topological methods. Required background includes courses in advanced calculus and differential equations. Formerly APM 553.

Equivalent Courses

APM553

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5557 Adv Partial Diff Equations

Course Info

Course Title

Advanced Partial Differential Equations

Course Description

Characteristic surfaces and classification; existence, uniqueness and stability; fundamental solutions and Green's functions; variational principles; spectral theory, distributions and generalized solutions. Required background includes courses in advanced calculus and differential equations. Formerly APM 557.

Equivalent Courses

APM557

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

APM 5610 Adv Data Structures/ Algorithms

Course Info

Course Title

Advanced Data Structures and Algorithms

Course Description

The course systematically studies advanced data structures and the design and analysis of algorithms. The main focuses are the techniques for designing algorithms using appropriate data structures, proving correctness, and analyzing the computational complexity of algorithms. Topics covered include: hash tables; data structures for combinatorial optimization; search trees; recurrence relations; divide and conquer; dynamic programming; greedy methods; advanced graph algorithms; linear programming. This course will be supplemented by algorithms selected from recent technical literature. APM 5610 is cross-listed with CSI 5610. Students may not receive credit for both courses.Prerequisite(s): Students must have graduate standing.

Equivalent Courses

APM567, CSI5610

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

APM 5663 App Mth: Discrete Methods I

Course Info

Course Title

Applied Mathematics: Discrete Methods I

Course Description

Elementary graph theory (trees, cycles, planar graphs and flows) and elementary enumeration (generating function, 0-1 strings, planted plane trees, cycle decomposition and Lagrange's inversion formula). Required background includes courses in linear algebra and discrete methods. Formerly APM 563.

Equivalent Courses

APM563

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

APM 5664 App. Math: Discrete Methods II

Course Info

Course Title

Applied Mathematics: Discrete Methods II

Course Description

Elementary design theory (latin squares, finite geometries and block designs) and introduction to selected other areas of discrete mathematics such as matroids, partially ordered sets and combinatorial topology. Formerly APM 564. Prerequisite(s): Student must meet prerequisite (APM 5663).

Equivalent Courses

APM564

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5665 Differential Geometry

Course Info

Course Title

Differential Geometry

Course Description

Theory of curves and surfaces in Euclidean space with an introduction to the theory of matrix Lie groups. Required background: a course in advanced calculus. Formerly APM 565.

Equivalent Courses

APM565

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5666 Computational Geometry

Course Info

Course Title

Computational Geometry

Course Description

A detailed study of the differential geometry of curves and surfaces in Euclidean 3-space, an introduction to several mathematical models for computer representation of curves and surfaces, and the use of the geometry of these models in computer-aided design and manufacturing systems. Required background: a course in linear algebra. Formerly APM 566.

Equivalent Courses

APM566

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5668 Math Model in Ind.: Discrete

Course Info

Course Title

Mathematical Modeling in Industry: Discrete Models

Course Description

Scheduling problems, optimality measures and schedules, single machine processing, parallel machine models, flow-shop scheduling, job-shop scheduling, project scheduling, dynamic programming approaches, branch and bound methods, integer programming formulations. Formerly APM 568. Prerequisite: APM 5663.

Equivalent Courses

APM568

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5669 Graph Theory & Applications

Course Info

Course Title

Graph Theory and Applications

Course Description

A selected view of advanced topics in graph theory and their applications. Topics drawn from: paths, connectivity, Euler tours, Hamilton cycles, trees, matchings and coverings, vertex and edge colorings, planarity and its generalizations, Ramsey theory and extremal theory, graphical enumeration, random graphs, network flows, graphs and groups, graph algorithms. Formerly APM 569.

Prerequisite: APM 5663.

Equivalent Courses

APM569

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5777 Computer Algebra

Course Info

Course Title

Computer Algebra

Course Description

A study of the mathematics and algorithms which are used in symbolic algebraic manipulation packages. Topics include computer representation of symbolic mathematics, polynomial ring theory, field theory and algebraic extensions, modular and p-adic methods, subresultant algorithm for polynomial GCD's, Groebner bases for polynomial ideals and Buchberger's algorithm, factorization and zeros of polynomials. Required background includes a course in abstract algebra and knowledge of a scientific programming language. Cross-listed with APM 4777. Student may not receive credit for both courses. Prerequisite(s): Required background includes a course in abstract algebra and knowledge of a scientific programming language.

Equivalent Courses

APM4777, APM577

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5881 Theory of Computation

Course Info

Course Title

The Theory of Computation

Course Description

A study of what kinds of computation can, in principle, be accomplished by what kinds of computing devices, and how efficiently such computations can be done. Finite automata, pushdown automata, Turing machines, languages, grammars, undecidability, complexity theory, intractability. Required background: a course in discrete mathematics. Formerly APM 581.

Equivalent Courses

APM581

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 5905 Special Topics

Course Info

Course Title

Special topics

Course Description

Study of some topics in applicable analysis and mathematical modeling. May be taken more than once. Formerly APM 505Prerequisite: Student must have permission of the instructor.

Equivalent Courses

APM505

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
4

APM 5920 Directed Reading & Research

Course Info

Course Title

Directed Reading and Research

Course Description

Reading and independent research activities under faculty supervision. Student must have permission of the graduate coordinator. Formerly APM 590.

Equivalent Courses

APM590

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Maximum Hours

99

APM 6005 Applied Continuous Math: Topic

Course Info

Course Title

Applied Continuous Mathematics: Selected Topics

Course Description

An in-depth treatment at the advanced graduate level of topics of importance for applications of analysis. Such topics may include: advanced ordinary differential equations, applied operator theory, calculus of variations, geometric methods in mechanics, integral equations, nonlinear functional analysis, or other topics. Permission of instructor is required. Formerly APM 605.

Equivalent Courses

APM605

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 6334 Num Meth Partl Diff Equa

Course Info

Course Title

Numerical Methods for Partial Differential Equations

Course Description

A study of major numerical techniques used to solve initial and boundary value problems for partial differential equations. Includes finite difference schemes, Rayleigh-Ritz and Galerkin methods, projection and steepest descent methods and finite element methods. The stability, efficiency and convergence of such methods will be considered as well as their implementation. Formerly APM 634.Prerequisites: APM 5333, APM 5557.

Equivalent Courses

APM634

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

3

Maximum Hours

4

APM 6558 Math Model in Ind.:
Continuous

Course Info

Course Title

Mathematical Modeling in Industry: Continuous Models

Course Description

Mathematical modeling, using P.D.E., for industrial problems. Topics will vary, depending on instructor and industry contacts, but some possibilities are: contact and friction problems, electropainting and electrochemistry, solid-liquid transitions and Stefan problems, wave phenomena, fluid flows, granular materials, heat conduction and diffusion. Required background includes courses in PDEs and Functional Analysis. Formerly APM 658.

Equivalent Courses

APM658

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 6664 Combinatorial Optimization

Course Info

Course Title

Combinatorial Optimization

Course Description

Duality and Farkas’ Lemma. Efficient algorithms, optimality conditions and polyhedral structures of problems in discrete optimization including optimal trees, optimal matchings and minimum-cost flow. Additional topics to include theory, approximation algorithms, matroid optimization and cutting planes algorithm for studying problems such as the traveling salesman and stable set problems. Student must meet prerequisite (APM 5663) or have instructor permission. Formerly APM 664.

Equivalent Courses

APM664

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

APM 6665 Approx Rndm Discrete Algorithm

Course Info

Course Title

Approximation and Randomized Discrete Algorithms

Course Description

Approximation and randomized algorithms of NP-hard problems. Algorithms discussed include those based on LP duality, greedy approach and semidefinite approach. Formerly APM 665.Prerequisites: MOR 5554, APM 5669.

Equivalent Courses

APM665

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 6773 Coding Theory

Course Info

Course Title

Coding Theory

Course Description

Linear codes, non-linear codes, B.C.H. codes, dual codes and their weight distribution, perfect codes and cyclic codes. Additional topics drawn from Reed-Solomon codes, Justessen codes, M.D.S. codes, Reed-Muller codes, Golay codes, self-dual codes and invariant theory. Formerly APM 673.Prerequisite: MTH 5771.

Equivalent Courses

APM673

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

APM 6945 Problem Solving Seminar

Course Info

Course Title

Problem Solving Seminar

Course Description

Applied problems and solutions using advanced mathematical methods presented by students and faculty. Each Ph.D. student is required to earn at least three credits. Student must have permission of the graduate coordinator. Formerly APM 695.

Equivalent Courses

APM695

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	99

APM 6996 M.S. Research Project

Course Info

Course Title

Master of Science Research Project

Course Description

This is the project course for the Master of Science in Industrial Applied Mathematics. It involves independent research under the supervision of an approved adviser, the preparation of a detailed report on the research and a presentation to a group of faculty members selected by the Committee on Graduate Programs. Student must have permission of the graduate coordinator. Formerly APM 595.

Equivalent Courses

APM595

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

APM 9999 Doctoral Dissertation Research

Course Info

Course Title

Doctoral Dissertation Research

Course Description

Research activities leading to the doctoral dissertation. Student must have permission of the graduate coordinator. Formerly APM 790.

Equivalent Courses

APM790

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

1

Credit Hours

Max:

12

Repeat Rules

Repeat Status Code

RP

Repeat Limit

29

Maximum Hours

99

BE 5000 Principles of Bioengineering

Course Info

Course Title

Principles of Bioengineering

Course Description

Basic principles of human physiology presented from the engineering perspective. Systems covered include the cardiovascular, neuromuscular, respiratory, renal and endocrine systems at the organ, tissue and cellular levels. Bodily functions, their regulation and control discussed in quantitative terms and illustrated by mathematical models where feasible.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5110 Medical Imaging

Course Info

Course Title

Medical Imaging

Course Description

Physics and engineering principles associated with x-ray, computer tomography, nuclear, ultrasound, and magnetic resonance, including human visualization and perception of image data. This course is cross listed with BE 4110. Students cannot receive credit for both BE 4110 and BE 5110.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5100 BioMed Signal Processing

Course Info

Course Title

Biomedical Signal Processing

Course Description

This course introduces fundamental aspects of practical signal processing, modeling, and analysis techniques for biomedical signals, using specific applications to demonstrate these principles. This course is cross listed with BE 4100. Students cannot receive credit for both BE 4100 and BE 5100.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5120 Medical Image Analysis

Course Info

Course Title

Medical Image Analysis

Course Description

This course introduces how to extract, model, and analyze information from medical imaging data and utilize applications to help diagnosis, treatment planning and prognosis. Medical Image Analysis includes topics in medical image segmentation, registration and multimodality fusion, feature extraction, statistical modeling and anomaly detection through shape and texture analysis with applications in MRI, CT, DTI, PET, SPECT, fMRI, etc. This course will provide students with a multidisciplinary background in current state-of-the-art in medical image analysis. This course is cross listed with BE 4120. Students cannot receive credit for both BE 4120 and BE 5120.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5130 Ultrasound & Photoacoustic Imaging

Course Info

Course Title

Ultrasound and Photoacoustic Imaging

Course Description

Physics, mathematical, and engineering principles of ultrasound, quantitative ultrasound, elastography, and photoacoustic/photoacoustic imaging. Emphasis will be placed on beamforming and image analysis including signal processing, machine learning, and deep learning approaches and clinical applications. The course will culminate with a project applying image analysis techniques to ultrasound and photoacoustic imaging. Prerequisite(s): BE 5110

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5140 AI in Medicine

Course Info

Course Title

Artificial Intelligence in Medicine

Course Description

This course will cover the theory and application of artificial intelligence as applied to medicine including both machine learning and deep learning algorithms. Applications will focus on electronic health records, time series analysis of physiological data, patient outcome prediction, and medical image analysis. Projects will be used to demonstrate key course concepts.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5150 Medical Sensing and Design

Course Info

Course Title

Medical Sensing and Design

Course Description

Survey of the design of modern medical instrumentation including highly technical specialized instruments, mobile, and low-cost instruments. Analysis will include the physical, electrical, mechanical, and biological foundations for the theory of operation for each instrument studied. Regulatory policies on the design, testing, and maintenance of medical devices will be introduced.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5200 Genetic and Genomic Eng

Course Info

Course Title

Genetic and Genomic Engineering

Course Description

This course will cover the latest advances in genomic and genetic research tools for the manipulation of genes and genomes. Students will review the principles of genetics, genomic and molecular biology as they pertain to genomic and genetic engineering. Students will use this introductory knowledge as the basis for learning to navigate genomic databases and manipulate Next Generation Sequencing (NGS) whole genome sequencing data. They will also learn the latest genome editing techniques for introduction of unique mutations/variants. The engineering of therapeutic molecules such as proteins and aptamers will also be covered. The ethical implications of genomic and genetic engineering will be discussed. This course is cross listed with BE 4200. Students cannot receive credit for both BE 4200 and BE 5200.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5300 Bioprocess Engineering

Course Info

Course Title

Bioprocess Engineering

Course Description

This course will cover material related to the application of biological, biochemical, and engineering fundamentals in the area of bioprocess engineering. Students will review aspects related to molecular biology, cell biology, genetic engineering, biochemistry and microbiology as they pertain to bioprocess engineering concepts. Advanced topics will include bioprocessing kinetics (enzymes, cell growth, substrate utilization, and product formation); bioenergetics; quantification of metabolism; bioreactor design and selection; bioprocess scale-up; product recovery, biosafety and good manufacturing practices; and the role of bioprocess engineering in medicine. This course is cross listed with BE 4300. Students cannot receive credit for both BE 4300 and BE 5300.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5400 Tissue Engineering

Course Info

Course Title

Tissue Engineering

Course Description

In this class, students will learn physical laws governing cellular homeostasis including the role of microenvironment on cell life, death, and differentiation and how to control cellular function and genetic programs by adhesion to substrates. Focus will be placed on the interaction between cell shape, substrate, mechanics, receptor mediated adhesion and applied force with mechanical and chemical signal transduction pathways. This course is cross listed with BE 4400. Students cannot receive credit for both BE 4400 and BE 5400.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5500 Musculoskeletal Biomechanics

Course Info

Course Title

Musculoskeletal Biomechanics

Course Description

Application of engineering mechanics to the musculoskeletal system including the kinematics and dynamics of spatial multiple degree-of-freedom human motion. Hands-on projects will include the use of Matlab for movement analysis.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 5600 Intro to Neural Engineering

Course Info

Course Title

Introduction to Neural Engineering

Course Description

Survey of topics in neural engineering including neural bioelectrical measurements and sensors, EEG signal processing, brain-computer interfaces, implantable and transcranial neuromodulation, peripheral neural interfacing, neuroimaging, neural modelling, and neural circuits and system identification.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

4

BE 6998 Master's Thesis Research

Course Info

Course Title

Master's Thesis Research

Course Description

Directed research leading to a master’s thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 16 credits.

College/School

School of Egr. and Comp. Sci.

Department

Bioengineering

Credits

Credit Hours

Units:

1

Credit Hours

Max:

8

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
99

BIO 5101 Gross Anatomical Dissect

Course Info

Course Title

Gross Anatomical Dissection

Course Description

Human gross anatomy as it relates to the practice of anesthesiology. Includes a laboratory with cadaver dissection. Course restricted to the DNP: Nurse Anesthesia program. Formerly BIO 503.

Equivalent Courses

BIO503

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

BIO 5210 Molecular Biology

Course Info

Course Title
Molecular Biology

Course Description
Basic molecular biology of viruses, prokaryotes, and eukaryotes with emphasis on cloning, expression and regulation of genes, applications of recombinant DNA, cancer, and genetic diseases/ disorders. BIO 5210 is cross-listed with an undergraduate course, BIO 4210. Student cannot receive credit for both courses. Formerly BIO 5252.

Equivalent Courses
BIO517, BIO5252

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

BIO 5222 Stem Cell Biology

Course Info

Course Title
Stem Cell Biology

Course Description
Comprehensive overview of stem cells and their potential biomedical research and applications. Aspects of basic, applied biology and medicine including development and differentiation, cancer regeneration/repair, cell therapy, and drug development. Provides a broad background and the opportunity to apply critical thinking skills to recent advances in stem cell biology. BIO 5222 is cross listed with BIO 4222. Student cannot receive credit for both courses. Formerly BIO 529.

Equivalent Courses
BIO529

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

BIO 5224 Science of Vision

Course Info

Course Title

Science of Vision

Course Description

Ocular development, visual transduction, retinal circuitry, brain pathways, color vision, physiological optics, eye diseases and treatments, ophthalmic imaging, gene therapy, human genomics. Authentic assessment will be employed to develop scientific skills: communication, evaluation of research papers, exploring visual impairment in different societies.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5226 Immunology

Course Info

Course Title

Immunology

Course Description

Human immune response. Emphasis on components of the immune system, antibody structure and function, antigen processing and presentation, T cell responses, immune response to infectious diseases and disorders of the immune system. Offered fall semesters. Formerly BIO 523.

Equivalent Courses

BIO523

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5230 Cellular Biochemistry

Course Info

Course Title

Cellular Biochemistry

Course Description

A discussion and lecture course offered by faculty members with research interests in biochemistry and biophysics. Topics will be announced. BIO 5230 is cross-listed with BIO 4230. Students cannot receive credit for both courses. Previous course number, title, rubric and credits : BIO 5250.

Equivalent Courses

BIO5250

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5240 Mechanisms of Development

Course Info

Course Title

Advanced Topics in Mechanisms of Development

Course Description

Mechanisms of cellular processes and the role of gene expression in developmental systems. Offered fall semesters. BIO 5240 is cross-listed with an undergraduate course, BIO 4240. Students cannot receive credit for both courses.

Equivalent Courses

BIO515

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5241 Lab Dev Biology/Morphology

Course Info

Course Title

Graduate Tutorial Lab in Developmental Biology and Morphology

Course Description

Techniques course offered to small groups of students in faculty research laboratories. Formerly BIO 516.

Equivalent Courses

BIO516

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

2

BIO 5251 Cellular Biochemistry Lab

Course Info

Course Title

Cellular Biochemistry Laboratory

Course Description

Modern research techniques: chromatography (paper, column, thin layers, etc.) electrophoresis, immunoelectrophoresis, ultracentrifugation and cell fractionation, isolation and density gradient analysis of the nucleic acids, etc. Formerly BIO 508. Corequisite: 5250.

Equivalent Courses

BIO508

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

BIO 5255 Adv Methods Molecular Genetics

Course Info

Course Title

Advanced Methods in Molecular Genetics

Course Description

Advanced molecular techniques including nucleic acid isolation and amplification, restriction fragment analysis, gel electrophoresis and genome-editing. Students will design and execute experiments and perform basic phenotypic and cytological analyses. BIO 5255 is cross-listed with an undergraduate course, BIO 4255. Students cannot receive credit for both courses.

Equivalent Courses

BIO518

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

BIO 5256 Adv Tp: Cellular/Biochem/ Metab

Course Info

Course Title

Advanced Topics in Cellular Biochemistry and Metabolism

Course Description

Advanced topics in biochemistry: Photosynthesis, glycogen metabolism, lipid and nitrogen metabolism; mechanism of enzyme activity; regulation of metabolic pathways; signal transduction; protein-DNA interactions and regulation of gene transcription. Students are required to present one topic from the course topics list. Formerly BIO 511.

Equivalent Courses

BIO511

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5257 Lab Cellular Biochem/ Metabolism

Course Info

Course Title

Graduate Tutorial Lab in Cellular Biochemistry and Metabolism

Course Description

Techniques course offered to small groups of students in faculty research laboratories. Formerly BIO 512.

Equivalent Courses

BIO512

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

2

BIO 5310 Conservation Biology

Course Info

Course Title

Conservation Biology

Course Description

Multidisciplinary course covering theoretical underpinnings and practical applications of biological conservation at local, regional, and international levels. Topics include causes and consequences of biodiversity loss, conservation strategies and planning, restoration ecology, and environmental law and policy. Offered alternate fall semesters. BIO 5310 is cross-listed with an undergraduate course, BIO 4310. Student cannot receive credit for both courses.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

BIO 5320 Medical Parasitology

Course Info

Course Title
Medical Parasitology

Course Description
Medically important protozoan, helminth, and arthropod parasites, including their morphology, biology, pathogenesis, clinical manifestations, immunology, epidemiology, and control. BIO 5320 is cross listed with an undergraduate course, BIO 4320. Students cannot receive credit for both courses.

Equivalent Courses
BIO565

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

BIO 5321 Medical Parasitology Lab

Course Info

Course Title
Medical Parasitology Laboratory

Course Description
Study of medically important protozoan, helminth, and arthropod parasites, including their morphology, biology, pathogenesis, clinical manifestations, immunology, epidemiology, and control. Laboratory activities include methods for identification of medically important parasites.

Equivalent Courses
BIO566

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits

Credit Hours

Units:
1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	1

BIO 5330 Ecology of Streams/Rivers

Course Info

Course Title

Ecology of Streams and Rivers

Course Description

Introduction to the ecology of streams and rivers. Topics include river restoration, nutrient cycling, stream food webs, fluvial geomorphology, watershed hydrology, invasive aquatic and riparian species, and riparian ecology. BIO 5330 is cross listed with an undergraduate course, BIO 4330. Students cannot receive credit for both courses. Formerly BIO 571.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5332 Lake Ecology

Course Info

Course Title

Lake Ecology

Course Description

Lake ecology will examine the physical, chemical, and biological dynamics of lakes. The class will focus on interactions between abiotic and biotic factors including nutrient cycling, nutrient controls on primary production, and producer-consumer interactions through lectures, in class experiments, and examining national lake databases. Offered fall semesters BIO 5332 is cross-listed with an undergraduate course, BIO 4332. Students cannot receive credit for both courses.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5334 Topics Physiological Ecology

Course Info

Course Title

Topics in Physiological Ecology

Course Description

Physiological responses of organisms to their environment including plant/herbivore interactions, adaptations of desert animals, allelopathy and energy cost of animal activities, communication on an organizational level. BIO 5334 is cross-listed with BIO 4334. Students cannot receive credit for both courses. Prerequisite (s): Student must have completed one course in ecology or physiology. Previous course number, title, rubric and credits : BIO 5380.

Equivalent Courses

BIO5380

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5336 Topic/Community/Population Bio

Course Info

Course Title

Topics in Community and Population Biology

Course Description

Analytic and synthetic approaches to the biology of populations and communities utilizing both plant and animal studies. Topics will include population growth and regulation, competition, predator-prey interactions, community structure and species diversity. BIO 5336 is cross listed with BIO 4336. Students cannot receive credit for both courses. Prerequisite (s): Student must have completed one course in ecology or evolution. Previous course number, title, rubric and credits : BIO 5384.

Equivalent Courses

BIO5384

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5338 Food Systems Biology

Course Info

Course Title

Food Systems Biology

Course Description

The biology of the food system is followed "from seed to plate" with regard to its impact on ecology and human physiology and pathology. BIO 5338 is cross-listed with an undergraduate course, BIO 4338. Student cannot receive credit for both courses.

Course Attributes

Service Learning Course (SL)

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5342 Topic: Evolutionary Biology

Course Info

Course Title

Topics in Evolutionary Biology

Course Description

Advanced topics in evolutionary biology including evolutionary rates, the nature of selection, adaptation, macroevolution, the application of molecular biology to evolution and philosophical issues of evolution. BIO 5342 is cross listed with an undergraduate course, BIO 4342. Students cannot receive credit for both courses. Offered alternate fall semesters.

Equivalent Courses

BIO5382

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5350 Topics Behavioral Biology

Course Info

Course Title

Topics in Behavioral Biology

Course Description

The ecology, evolution, genetics and physiology of behavior, especially social behavior. Topics will include kin recognition, mate choice, dominance hierarchies and the mechanisms by which societies are organized. Offered alternate winter semesters. BIO 5350 is cross listed with an undergraduate course, BIO 4350. Students cannot receive credit for both courses.

Equivalent Courses

BIO5386

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5380 Ecological Problem Solving

Course Info

Course Title

Ecological Problem Solving

Course Description

Physiological responses of organisms to their environment including plant/herbivore interactions, adaptations of desert animals, allelopathy and energy cost of animal activities, communication on an organizational level. Offered alternate winter semesters, Student must have completed one course in ecology or physiology.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

BIO 5381 Experimental Ecology Lab

Course Info

Course Title

Experimental Ecology Lab

Course Description

Practical introduction to ecological experimentation including quantitative analysis of ecological data. Students will work in collaborative groups to design, execute, and analyze ecological experiments including parameterizing models to describe ecological processes. BIO 5381 is cross-listed with an undergraduate course, BIO 4381. Students cannot receive credit for both courses.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	1

BIO 5388 Design/Analysis Bio Expts

Course Info

Course Title

Design and Analysis of Biological Experiments

Course Description

Design and analysis of manipulative and natural experiments, emphasizing the practical use of statistics for analyzing common types of data in the biological sciences.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5400 Advanced Genetics

Course Info

Course Title

Advanced Genetics

Course Description

Topics include methods of gene discovery through analysis of genetic variation, genetics of complex traits (in which multiple genes and environment interact), non-classical modes of inheritance, and applied topics such as the use of genetics in medicine and forensics. BIO 5400 is cross listed with an undergraduate course, BIO 4400. Students cannot receive credit for both courses. Previous course number, title, rubric and credits : BIO 5254.

Equivalent Courses

BIO5254

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5412 Functional Genomics Bioinforma

Course Info

Course Title

Functional Genomics and Bioinformatics

Course Description

Use and implementation of computer software for sequence analysis of nucleic acids and proteins. Emphasis on gene discovery, annotation, building phylogenetic histories, and state-of-the-art strategies used for gene expression analysis of an organism from a genome-wide perspective. BIO 5412 is cross listed with an undergraduate course, BIO 4412. Students cannot receive credit for both courses. Formerly BIO 543.

Equivalent Courses

BIO5270

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5510 Virology

Course Info

Course Title

Virology

Course Description

Fundamentals of virology including classification of bacteriophages, replication strategies, virus-host interactions and pathogenesis. BIO 5510 is cross listed with an undergraduate course, BIO 4510. Students cannot receive credit for both courses.

Equivalent Courses

BIO5540

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5530 Medical Microbiology

Course Info

Course Title

Medical Microbiology

Course Description

Bacterial and viral human pathogens, emphasizing their etiology, physiology, pathogenesis, epidemiology, control and diagnosis. Formerly BIO 521.

Equivalent Courses

BIO521

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

BIO 5550 Microbial Biotechnology

Course Info

Course Title

Microbial Biotechnology

Course Description

Microbial genetics, emphasizing the basic aspects of bacteriophage and plasmid genetics applied to biotechnology. Formerly BIO 541.

Equivalent Courses

BIO541

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5600 Adv Physiology/Pathophysio I

Course Info

Course Title

Advanced Physiology and Pathophysiology I

Course Description

Application of physiological principles to pathological and clinical alterations in the nervous and endocrine systems. Formerly BIO 501.

Equivalent Courses

BIO501

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

3

BIO 5602 Adv Physiology/Pathophysio II

Course Info

Course Title

Advanced Physiology and Pathophysiology II

Course Description

Application of physiological principles to pathological and clinical alterations in the cardiovascular, renal, gastrointestinal and respiratory systems. Course restricted to the DNP: Nurse Anesthesia program. Formerly BIO 502.

Equivalent Courses

BIO502

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

BIO 5610 Advance Topics Cell Physiology

Course Info

Course Title

Advanced Topics in Cell Physiology

Course Description

A discussion and lecture course offered by faculty members with research interests in cell physiology. Topics will be announced. Formerly BIO 513.

Equivalent Courses

BIO513

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5620 Advanced Human Physiology

Course Info

Course Title

Advanced Human Physiology

Course Description

Lectures and discussion emphasizing the experimental basis and current techniques for the study of human systems. Topics include: neuromuscular, cardiovascular, respiratory and renal physiology. BIO 5620 is cross-listed with an undergraduate course, BIO 4620. Students cannot receive credit for both courses.

Equivalent Courses

BIO601

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

BIO 5622 Endocrinology

Course Info

Course Title

Endocrinology

Course Description

Endocrine systems, mechanisms of hormone action, interactions among hormones, the roles of hormones in growth, differentiation, and reproduction; tumor suppressor genes and oncogenes. Emphasis on human endocrine disorders and their clinical significance. Formerly BIO 509.

Equivalent Courses

BIO509

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5660 Integrative Pharmacology

Course Info

Course Title

Integrative Pharmacology

Course Description

Introduction to human pharmacology with emphasis on an integrative approach to encompass clinical application, physiological functions, pharmacological principles, biochemistry of actions. Offered fall semester.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 5900 Selected Topics in Biology

Course Info

Course Title

Selected Topics in Biology

Course Description

Advanced topics in a specialized area of biological sciences. The topics may vary. May be repeated for additional credit. Student must have permission of department. Formerly BIO 591.

Equivalent Courses

BIO591

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
1	5

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	99

BIO 5920 Directed Readings in Biology

Course Info

Course Title

Directed Readings in Biology

Course Description

Term paper based on library research of a current research-oriented biological topic. May be taken more than once. Student must have permission of department. Formerly BIO 505.

Equivalent Courses

BIO505

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	4

BIO 5940 Pre-Medical Study Abroad

Course Info

Course Title

Pre-Medical Study Abroad

Course Description

Pre-medical preparation program at a foreign institution, covering medical knowledge and skills used by physicians in the host country. Includes clinical experiences. Specific international program to be announced in the schedule of classes. BIO 5940 is cross-listed with BIO 4940. Students cannot receive credit for both courses. Prerequisite(s): Instructor permission.

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

BIO 5995 Graduate Project Research

Course Info

Course Title

Graduate Project Research

Course Description

Research credits limited to graduate students pursuing a Master of Arts in Biology degree. May be repeated for up to 4 credits. Formerly BIO 590.

Equivalent Courses

BIO590

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
4

Maximum Hours
4

BIO 6012 Ethics in Science

Course Info

Course Title

Ethics in Science

Course Description

Discussion of ethical issues in science and medicine. Formerly BIO 611.

Equivalent Courses

BIO611

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

BIO 6212 Biological Communication II

Course Info

Course Title

Biological Communication II

Course Description

Intracellular signaling pathways regulating cellular functions. Formerly BIO 673.

Equivalent Courses

BIO673

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 6210 Biological Communication I

Course Info

Course Title

Biological Communication I

Course Description

Extracellular and intercellular mechanisms of biological communication. Formerly BIO 671.

Equivalent Courses

BIO671

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 6902 Special Topics/
Communication

Course Info

Course Title
Special Topics in Communication

Course Description
Special topics in scientific communication. Formerly BIO 605.

Equivalent Courses
BIO605

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	88

BIO 6995 Graduate Research

Course Info

Course Title
Graduate Research

Course Description
Research credits limited to graduate students in the biological sciences. This research will serve as the basic course leading to the preparation of a thesis. Formerly BIO 690.

Equivalent Courses
BIO690

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits
Credit Hours

Units:	Credit Hours
1	Max: 8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

BIO 6998 Thesis Seminar

Course Info

Course Title

Thesis Seminar

Course Description

A departmental seminar by M.S. candidates on their thesis research. The seminar is normally presented the last semester of graduate study. Formerly BIO 691.

Equivalent Courses

BIO691

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

1

BIO 7010 Biological and Biomedical Sci

Course Info

Course Title

Biological and Biomedical Sciences

Course Description

Critical analysis of scientific literature, experimental design, development of research proposals, and grant proposal writing. Formerly BIO 711. Prerequisite: Must be a doctoral student or have graduate coordinator permission.

Equivalent Courses

BIO711

College/School

College of Arts and Sciences

Department

Biological Sciences

Credits

Credit Hours

Units:

4

BIO 7999 Doctoral Research

Course Info

Course Title
Doctoral Research

Course Description
Approval of dissertation topic required. Graded S/U. Formerly BIO 799. Prerequisite: Doctoral candidate standing.

Equivalent Courses
BIO799

College/School
College of Arts and Sciences

Department
Biological Sciences

Credits
Credit Hours

Units:	Credit Hours
1	Max: 12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	29	98

BST 5441 Longitudinal Data Analysis

Course Info

Course Title
Longitudinal Data Analysis

Course Description
Statistical analysis of data collected on a cohort over time. Topics include longitudinal data structures, profile analysis, linear mixed effects model, estimation and testing modeling, covariance structures, non-normal response variables, nonlinear profiles, missing data, dynamic covariates. Formerly BST 541. Prerequisites: STA 5002 and STA 5227.

Equivalent Courses
BST541

College/School
College of Arts and Sciences

Department
Mathematics and Statistics

Credits
Credit Hours

Units:
4

BST 5446 Bioinfo/Biomedical Data Mng

Course Info

Course Title

Bioinformatics and Biomedical Data Mining

Course Description

Introduction to basic concepts and statistical methods for analyzing large-scale biological data generated from emerging genomic and proteomic techniques. Some relevant biological background will be supplied to provide a context. Topics include types of data in molecular biology. DNA sequence analysis, microarray gene expression data analysis, sequences analysis and genome bioinformatics. Formerly BST 546. Prerequisites: STA 5002 and STA 5227.

Equivalent Courses

BST546

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

BST 5551 Clin Trials/Ethics/Biomed Sci

Course Info

Course Title

Clinical Trials and Ethics in Biomedical Sciences

Course Description

Variety of aspects related to design and analysis of randomized clinical trials. Topics include the rationale for phases 1-3 clinical trials, clinical endpoints, clinical data management and monitoring, ethics of clinical research, study design such as parallel, crossover and factorial designs, techniques for randomization and stratification, data collection, and sample size requirements. Formerly BST 551. Prerequisite: STA 5002.

Equivalent Courses

BST551

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

BST 5771 Intro/Statistical Epidemiology

Course Info

Course Title

Introduction to Statistical Epidemiology

Course Description

Approaches to studying various aspects of a disease in human populations, including randomized trials and various observational studies such as case-control, cross-sectional, and ecological. Issues involving causal inference, multi-causality, threats to study validity, surveillance will be discussed. Formerly BIO 571. Prerequisites: STA 5002 and STA 5227.

Equivalent Courses

BST571

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

CDS 5000 Medical Genetics

Course Info

Course Title

Medical Genetics

Course Description

The course will discuss the molecular nature and inheritance patterns of genes. Classical genetics and the cause and diagnosis of disease at the molecular level will be detailed. Cross-listed with CDS 4000. Credit cannot be received for both CDS 5000 and CDS 4000. Prerequisite(s): BIO 2600 (C)

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CDS 5010 Human Pathology

Course Info

Course Title

Human Pathology

Course Description

Basic principles of human pathology appropriate for students pursuing curricula in the health-related disciplines. Diseases of the major systems of the body are studied. Credit will not be granted for both CDS 4010 and CDS 5010. Slash course with CDS 4010. Previously HS 5000Prerequisite (s): BIO 1200, BIO 2100 and (BIO 2600 or BIO 3620).

Equivalent Courses

HS5000

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

CDS 5020 Molecular Diagnostics

Course Info

Course Title

Molecular Diagnostics

Course Description

This course provides a comprehensive overview of the fundamental principles of clinical molecular diagnostics and explores the use of molecular techniques in the diagnosis of disease. Topics to be covered include nucleic acid structure and function, genetics, DNA chemistry, introduction to nucleic acid isolation, identification and amplification techniques used in infectious disease diagnosis in the clinical laboratory, components of a molecular laboratory, evaluation of controls to validate results obtained, and correlation with clinical conditions. This course is cross-listed with an undergraduate. Credit cannot be received for both CDS 4020 and CDS 5020.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

CDS 5030 Histopathology

Course Info

Course Title

Histopathology

Course Description

Histopathology is the study of pathologic processes at the microscopic level. Students will integrate normal cell and tissue biology through a visual approach to pathology in tissues and organ systems. Various written material will be used to communicate and reinforce fundamental concepts in the areas of normal and pathologic tissues. Prerequisites: BIO 1002 or BIO 1200, and (BIO 2006 or BIO 2100 or BIO 2600, or equivalent)

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CDS 5050 Pharmacology

Course Info

Course Title

Pharmacology

Course Description

Pharmacology is the study of all aspects of the properties and effects of drugs, including the principles of pharmacokinetics, pharmacodynamics, and pharmacogenomics. This course will discuss the physiology of disease states, and the role of pharmaceutical intervention. Students in this course will gain a deeper understanding of drug function at the cellular and molecular level, and apply these concepts to the treatment of disease. Cross-listed with CDS 4050. Credit cannot be received for both CDS 5050 and CDS 4050. Prerequisite(s): BIO 2600 or BIO 3620

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

CDS 5200 Literature Review

Course Info

Course Title

Literature Review

Course Description

Review of current literature topics in the clinical laboratory sciences. Emphasis is placed on the critique of methods, research design, and value to the current body of knowledge.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

CDS 5240 Immunohematology

Course Info

Course Title

Immunohematology

Course Description

This course will provide the student with an introduction to the field of Immunohematology (Blood Banking). Emphasis will be placed on the immunologic and genetic basis for the study of red cell antigen/antibody systems, a discussion of the basic principles of transfusion therapy and of the physiologic and pathophysiologic consequences of foreign antigen exposure. The laboratory session will provide the student with an introduction to the techniques employed in the field with emphasis on a broad survey of multiple techniques rather than absolute proficiency in a few. Cross-list with CDS 4240. Credit can be received for only one course.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

CDS 5350 Parasitology Mycology Virology

Course Info

Course Title

Clinical Parasitology, Mycology and Virology

Course Description

A thorough introduction to clinical parasitology, mycology and virology. Included are: taxonomy and structure, specimen collection and cultivation techniques, life cycles, reproduction, epidemiology and disease pathogenesis, microbial virulence, identification and control.Cross-Listed with CDS 4350. Credit can be received for only one course.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

CDS 5400 Clinical Correlations

Course Info

Course Title

Clinical Correlations

Course Description

A problem-solving, multidisciplinary, case-study-based course, which integrates material from the various clinical laboratory science disciplines. The course utilizes critical-thinking exercises to interpret data across disciplines, correlating results to disease problem-solving and quality assurances.Cross-listed with CDS 4400. Credit can be received for only one course.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

CDS 5420 Principles Molecular Medicine

Course Info

Course Description

Modern molecular techniques including next-generation sequencing, routine use of whole-exome and whole-genome sequencing, and long-range sequencing now permit a molecular dissection of more common (multifactorial) human diseases that have a significant effect on the human condition and public health. This course will explore the genetic/molecular basis of both common (multifactorial) and Mendelian diseases, as well as the most common "genetic" disease cancer. Additional topics including infectious and immunological diseases with significant genetic factors may be discussed as well. Prerequisite(s): CDS 4000, (CDS 4010 and CDS 4020), BIO 4210 Cross-listed: CDS 4420

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

CDS 5500 Foundations in Clinical Labora

Course Info

Course Title

Foundations in Clinical Laboratory Science

Course Description

This course provides students with a foundational background in the clinical laboratory sciences. Topics covered include a basic overview of the core medical laboratory science areas of clinical chemistry, hematology, clinical microbiology, immunohematology, immunology, body fluids, and molecular diagnostics with focus on basic physiologic mechanisms, preanalytic testing considerations, analytical testing principles/procedures, and general clinical correlations. Laboratory processes including quality control, laboratory math, laboratory safety, accreditation and certification, care and use of common laboratory equipment, specimen collection and processing, and basic principles of phlebotomy will also be covered.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CDS 5600 Molecular Mech Bacterial Patho

Course Info

Course Title

Molecular Mechanisms of Bacterial Pathogenesis

Course Description

This course explores the ongoing battle between pathogenic bacteria and their hosts at a cellular, molecular and genetic level. Topics cover: common and distinctive features of bacterial pathogenic mechanisms, virulence factors; host defense mechanisms; molecular genetic methods; and medical important causative agents as models to understand pathogenic mechanisms. This course is cross-listed with CDS 4600. Prerequisite(s): CDS 3300 or CDS 4300 or BIO 3520 or BIO 3500.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

CDS 5700 Medical Endocrinology

Course Info

Course Title

Medical Endocrinology

Course Description

This course will provide an overview of the endocrine system, its hormones, functions, and hormonal interactions with cancer. Emphasis will be placed on understanding the Clinical endocrinology with efforts made to discuss the interrelations, laboratory tests, effects, and mode of action of different hormones related to different endocrine disorders. Slash course with CDS 4700. Credit cannot be received for both CDS 5700 and CDS 4700. Prerequisite(s): BIO 2600 or BIO 3620 or any Anatomy/Physiology equivalent.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CDS 5800 Laboratory Management

Course Info

Course Title

Laboratory Management

Course Description

This course is designed to acquaint students with the principles of operating a clinical laboratory. Emphasis is on personnel, financial, and general administrative management. Also, the student is introduced to writing instructional objectives, constructing evaluation instruments, and planning instructional strategies and establishing a professional development program. Ethical issues in laboratory medicine are also discussed.

Equivalent Courses

CDS6200

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

CDS 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

This course will cover emerging and timely topics in clinical laboratory sciences for which an existing course does not exist. May be repeated for additional credit (content must differ when repeated).

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

CDS 5929 Directed Readings

Course Info

Course Title
Directed Readings

Course Description
Student initiated and problem-oriented directed study focusing on clinical and diagnostic sciences issues. May be repeated for additional credit. Additional Requirement(s): Program faculty permission

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

CDS 5995 Directed Research

Course Info

Course Title
Directed Research

Course Description
Participation in a research project, under the direction of a faculty sponsor. May be repeated for additional credit.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

CDS 5996 Independent Study

Course Info

Course Title
Independent Study

Course Description
Student initiated and problem-oriented independent study focusing on clinical and diagnostic sciences issues. May be repeated for additional credit.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

CDS 6000 CDS Capstone

Course Info

Course Title
Clinical and Diagnostic Sciences Capstone

Course Description
Students will use the information from all their CDS courses and electives to address a problem or important issue in the healthcare profession. In this course, students will design and begin working on a project in clinical education, healthcare operations, or healthcare practice. The student will submit a project proposal for approval within the first three weeks of the course. The faculty advisor will work with the student during Capstone to monitor their progress and evaluate milestones in the project. Students will submit a deliverable by the end of the semester under the direction of their faculty advisor. The project will address a problem or important issue in the healthcare profession. Note the implementation of the project is not a requirement of the course, only the development of a plan.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits

Credit Hours

Units:
3

CDS 6300 Molecular & Cellular Pathology

Course Info

Course Title

Molecular and Cellular Pathology

Course Description

A study of the molecular and cellular aspects of human disease. Students are introduced to basic etiologies and pathogenesis that underlie all diseases. More detailed discussions of pathologic mechanisms including structural lesions (morphology) and functional consequences (clinical presentation) will be discussed within specific diseases of organ systems. Emphasis will be placed on regulation of the eukaryotic cell cycle, signal transduction pathways, molecular mechanisms, receptor/membrane function and their relationship to tumor biology, endocrine dysfunction, dyslipidemia and other pathophysiologic conditions.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

CDS 6450 Prof Dev and Comm

Course Info

Course Title

Professional Development and Communication

Course Description

This course is designed to develop critical professional communication skills for health care leaders. Emphasis is on self-awareness, professional branding, career documents, interview skills, leadership communication, collaboration, conflict management, and professional relationship management. Students will develop professional writing and oral presentation skills while enhancing interpersonal skills.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

CHM 5100 Environmental Chemistry

Course Info

Course Title

Environmental Chemistry

Course Description

Concepts from atmospheric and aquatic chemistry as it is applied to the environment such as photochemistry, global warming, ozone depletion, carbon cycle, equilibrium principles, acids and bases, complexation and dissolution, and electron transfer processes. Current topics in environmental issues and analytical methods will be discussed. Slash Course: CHM 5100 is slash course with an undergraduate course, CHM 4100. Students cannot receive credit for both courses

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

CHM 5210 Advanced Analytical Chemistry

Course Info

Course Title

Advanced Analytical Chemistry

Course Description

An in-depth analysis of the operating principles behind modern instrumental techniques. Emphasis on techniques that are used throughout the branches of chemistry such as mass spectrometry, HPLC, gas chromatography, infrared spectroscopy and NMR. Relative merits of each technique are examined along with a survey of typical applications. Three hours of lecture per week. Formerly CHM 521.

Equivalent Courses

CHM521

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

CHM 5230 Chemical Separations

Course Info

Course Title

Chemical Separations

Course Description

Detailed examination of fundamentals of modern chemical separation techniques including chromatography, electrophoresis, and mass spectrometry. Sample preparation methods such as solvent extraction, solid-phase extraction, and thermal desorption are considered. Relevant applications to environmental, industrial, and biomedical problems are illustrated by case studies from the current literature. Formerly CHM 523.

Equivalent Courses

CHM523

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5254 Biochemistry I

Course Info

Course Title

Biochemistry I

Course Description

Structure and function of proteins, carbohydrates and lipids; enzyme mechanisms, kinetics and regulation; bioenergetics and catabolism. CHM 5254 is cross-listed with CHM 4254 and BCM 4254. Students can only receive credit for one of these courses.

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

CHM 5340 Advanced Organic Chemistry

Course Info

Course Title

Advanced Organic Chemistry

Course Description

Detailed discussion of aspects of modern synthetic methods, stereochemistry and reaction mechanisms. Formerly CHM 534

Equivalent Courses

CHM534

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5390 Applied Organic Spectroscopy

Course Info

Course Title

Applied Organic Spectroscopy

Course Description

Introduction to theory, experimental methods and chemical application of molecular spectroscopy. Focus on nuclear magnetic resonance (NMR), electronic and vibrational spectroscopy (UV-Vis and IR), electron spin resonance (ESR), and mass spectrometry (MS). Emphasis on spectral interpretation and identification of organic molecules. Laboratory demonstration and/or experiment on selected techniques. Formerly CHM 539.

Equivalent Courses

CHM539

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5400 Symmetry In Chemistry

Course Info

Course Title

Symmetry in Chemistry

Course Description

Detailed treatment of point group symmetry. Chemical applications of group theory with special emphasis on MO, ligand field theory and vibrational and electronic spectroscopy. Formerly CHM 540.

Equivalent Courses

CHM540

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5410 Advanced Physical Chemistry

Course Info

Course Title

Advanced Physical Chemistry

Course Description

Application of quantum mechanics and statistical mechanics to chemical kinetics, molecular structure and molecular spectroscopy. Formerly CHM 541.

Equivalent Courses

CHM541

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5420 Topics in Physical Chemistry

Course Info

Course Title

Topics in Physical Chemistry

Course Description

Selected topics drawn from current areas of interest, such as quantum mechanics, statistical mechanics, thermodynamics, spectroscopy, kinetics and group theory. May be repeated for credit. Formerly CHM 542.

Equivalent Courses

CHM542

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	99

CHM 5440 Computational Chemistry

Course Info

Course Title

Computational Chemistry

Course Description

Application of advanced methods of computational chemistry to experimental problems. Emphasis on the capabilities and limitations of these techniques and on interpretation of results of state-of-the-art computational software. Formerly CHM 544.

Equivalent Courses

CHM544

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5530 Advanced Biochemistry

Course Info

Course Title

Advanced Biochemistry

Course Description

Detailed treatment of aspects of biochemistry. Formerly CHM 553.

Equivalent Courses

CHM553

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5550 Signal Transduction

Course Info

Course Title

Signal Transduction

Course Description

Literature-based consideration of biochemical communication that occurs when extracellular signals interact with cell receptors and activate complex intracellular signaling pathways. Detailed analysis of molecular interactions (protein-protein and protein-DNA) that convert the external signal to changes in cellular gene expression. Emerging experimental techniques will be emphasized. Formerly CHM 555.

Equivalent Courses

CHM555

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5630 Advanced Inorganic Chemistry

Course Info

Course Title

Advanced Inorganic Chemistry

Course Description

Detailed treatment of the chemistry of the elements. Formerly CHM 563.

Equivalent Courses

CHM563

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5650 Bioinorganic Chemistry

Course Info

Course Title

Bioinorganic Chemistry

Course Description

Emphasis on the role inorganic elements, especially transition metals, play in biochemical systems. Topics discussed include metalloenzymes, role of inorganics in medicine (chemotherapeutic agents), nutritional aspects, toxicity, physical methods of detection in biochemical systems. Formerly CHM 565.

Equivalent Courses

CHM565

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5730 Fundamentals of Materials Chem

Course Info

Course Title

Fundamentals of Materials Chemistry

Course Description

Comprehensive coverage of the fundamentals of applied materials chemistry. Discussion of key issues in physics and chemistry of materials. Will provide basis for understanding of solid-state chemistry, solid-state physics, and materials science. Formerly CHM 573.

Equivalent Courses

CHM573

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5810 Biochemical Toxicology

Course Info

Course Title

Biochemical Toxicology

Course Description

Systematic treatment of toxicological principles at cellular and biochemical levels. Emphasis is on mammalian toxicology, including: uptake and distribution, activation and metabolism; modes of action; theories of carcinogenesis and mutagenesis. Formerly CHM 581.

Equivalent Courses

CHM581

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

CHM 5900 Topics in Analytical Chemistry

Course Info

Course Title

Topics in Analytical Chemistry

Course Description

Selected subjects chosen from current analytical chemical areas, such as separation methods, instrumentation and electrochemistry. May be repeated for credit. Formerly CHM 522.

Equivalent Courses

CHM522

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	99

CHM 5901 Topics in Organic Chemistry

Course Info

Course Title

Topics in Organic Chemistry

Course Description

Selected subjects drawn from modern research fields. May be repeated for credit. Formerly CHM 535.

Equivalent Courses

CHM535

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
99

CHM 5902 Topics in Biochemistry

Course Info

Course Title

Topics in Biochemistry

Course Description

Selected subjects drawn from the current fields of interest, such as immunochemistry, biotechnology and molecular biology. May be repeated for credit. Formerly CHM 554.

Equivalent Courses

CHM554

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code
RP

Maximum Hours
99

CHM 5903 Topics in Inorganic Chemistry

Course Info

Course Title

Topics in Inorganic Chemistry

Course Description

Selected topics chosen from current areas of interest, such as transition metal chemistry, boron chemistry, ligand field theory and organometallic chemistry. May be repeated for credit. Formerly CHM 564.

Equivalent Courses

CHM564

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

CHM 5920 Directed Readings in Chemistry

Course Info

Course Title

Directed Readings in Chemistry

Course Description

Term paper based on library research of a current research-oriented topic in chemistry. May be taken more than once. Student must have permission of department.

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

4

CHM 6850 Health/Environmental Chemistry

Course Info

Course Title
Seminar in Health and Environmental Chemistry

Course Description
Weekly seminars dealing with current issues and literature in health and environmental areas. For doctoral students only. May be repeated for up to 8 credits. Graded Satisfactory/Unsatisfactory. Formerly CHM 685.

Equivalent Courses
CHM685

College/School
College of Arts and Sciences

Department
Chemistry

Credits
Credit Hours

Units:
1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	8

CHM 6994 Grad Research for Non-Thesis

Course Info

Course Title
Graduate Research for Non-Thesis

Course Description
Option for non-thesis students to complete some research credits toward their degree without completing a full thesis. Graded as Satisfactory/Unsatisfactory

College/School
College of Arts and Sciences

Department
Chemistry

Credits
Credit Hours

Units:	Credit Hours Max:
1	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	6

CHM 6995 Graduate Research

Course Info

Course Title

Graduate Research

Course Description

Graded Satisfactory/Unsatisfactory. Student must have admission to regular graduate status. Formerly CHM 690.

Equivalent Courses

CHM690

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

CHM 6996 Graduate Projects

Course Info

Course Title

Graduate Projects

Course Description

Advanced project-oriented laboratory and/or computer investigation focused in area relevant to student interest. Written report required. May be repeated for a total of 6 credits. Student must have regular MS program status, have completed two graduate courses, and have permission of instructor. Formerly CHM 590.

Equivalent Courses

CHM590

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:	Credit Hours Max:
1	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	6	18

CHM 9999 Doctoral Research Chemistry

Course Info

Course Title
Doctoral Research in Chemistry

Course Description
Graded Satisfactory/Unsatisfactory. Approval of dissertation topic is required. Formerly CHM 799.

Equivalent Courses
CHM799

College/School
College of Arts and Sciences

Department
Chemistry

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	6	99

CNS 5050 Intro to Counseling and Ethics

Course Info

Course Title
Introduction to Counseling and Ethics

Course Description
An introduction to the counseling profession, including topics relating to professional identity, legal and ethical issues in counseling, and historical and social/cultural foundations of the counseling profession. Assignments are tailored to the student's emphasis. Required for Core mental health and school-based programs. Formerly CNS 503.Prerequisite: Students must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses
CNS503, CNS5050P

College/School
School of Ed. and Human Svcs.

Department
Counseling

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 5060 Diversity/Social Justice Issue

Course Info

Course Title

Diversity and Social Justice Issues

Course Description

A study of methods and techniques of counseling in a pluralistic society. Includes a focus on counselor awareness, knowledge and skill development to work in both diverse school and community settings. Topics include cultural ethnicity, spiritual and religious diversity, sexual orientation, and individuals with special needs. Formerly CNS 504.Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS504, CNS5060P

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 5070 Clinical Counseling Skills

Course Info

Course Title

Clinical Counseling Skills

Course Description

Laboratory training in counseling skills and application of theory to practice. Development of a personal theory of counseling is expected. Includes audio and videotaping of counseling interviews with clinical supervision. Formerly CNS 505, CNS 661.Prerequisite: Students must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS505, CNS5070P, CNS661, CNS661P

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 5080 Theories/CNS/
Psychotherapy

Course Info

Course Title

Theories of Counseling of Psychotherapy

Course Description

Study of the major theories of personality and counseling including historical development, philosophical tenets and current applications. Required for core program. Formerly CNS 520.Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS520

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CNS 5090 Individual/Family
Development

Course Info

Course Title

Individual and Family Development

Course Description

An overview of life-span developmental theories for counseling children, adolescents and adults. Includes the use of case studies to assess developmental needs of clients in a variety of settings. Formerly CNS 530. Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS530

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CNS 6000 Research in Counseling

Course Info

Course Title

Research in Counseling

Course Description

Study of research techniques and procedures in counseling designed to prepare students to critically evaluate the counseling research literature and to conduct independent research projects. Topics include sampling, data collection techniques, research design, statistical analysis and professional report writing. May be elected for independent study. Formerly CNS 660 - Research in Counseling. Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS535, CNS660

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6010 Testing/Assessment in CNS

Course Info

Course Title

Testing and Assessment in Counseling

Course Description

Introduction to assessment procedures and instruments, including vocational, educational, intelligence and personality tests, for working with children, adolescents and adults. Covers basic statistics, technical aspects of an instrument and ethical considerations. Provides for supervised experiences in assessment and report writing. Formerly CNS 540.Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS540

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6020 Career Develop Theory/ Practice

Course Info

Course Title

Career Development Theory and Practice

Course Description

Covers theories of career development and techniques of career assessment with individuals from early childhood to adulthood. Emphasizes the processes for providing career guidance and counseling for self-understanding, decision making and employability. Formerly CNS 550, CNS 640.Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS550, CNS640, CNS640P

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	4	4

CNS 6030 Group Counseling

Course Info

Course Title

Group Counseling

Course Description

During the course of this semester, students will learn about the lifespan development of childhood and adolescence. Play therapy techniques, demonstrations and experiential role plays such as sand tray therapy will be integrated into the course. Formerly CNS 570, CNS 663. Prerequisite: Student must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS570, CNS663

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 6035 Adv Child & Adol Play Therapy

Course Info

Course Title

Advanced Child & Adolescent Play Therapy

Course Description

During the course of this semester, students will learn about the lifespan development of childhood and adolescence. Play therapy techniques, demonstrations and experiential role plays such as group play therapy will be integrated into the course.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 6065 Family and Couple Counseling

Course Info

Course Title

Introduction to Family and Couple Counseling

Course Description

A study of the major theoretical approaches to counseling families and couples. Case studies, analysis of one's own family and simulations may be used to facilitate the transition from theory into practice. Student must complete core courses (CNS 500, CNS 510, CNS 520, CNS 530, and CNS 540), prior to registration, or have permission of instructor.

Equivalent Courses

CNS573

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 6070 Counseling for Wellness

Course Info

Course Title

Counseling for Wellness

Course Description

Focuses on psychological aspects of wellness and rehabilitation. Presents information on philosophical and pragmatic aspects of wellness, and reviews the concept as a choice or decision to gravitate towards optimal health, implying not just the absence of illness, but an integration of psychological, social and spiritual components with physical health. Explores the actual and potential roles in the fields of health maintenance organizations and preventative medicine in designing and implementing plans to improve the wellness of individual patients/clients, and groups.

Equivalent Courses

CNS653

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 6075 Reaction to Significant Loss

Course Info

Course Title

Reaction to Significant Loss

Course Description

Covers the concept of significant loss, behavioral and psychosocial reactions to loss, and effective counseling strategies. Among losses covered are those resulting from death, divorce and loss of self-esteem and mobility. Student must complete core courses (CNS 500, CNS 510, CNS 520, CNS 530 and CNS 540), prior to enrollment, or have permission of instructor.

Equivalent Courses

CNS577

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 6080 Human Sexuality

Course Info

Course Title

Human Sexuality

Course Description

Provides students with an overview of human sexuality for future counseling professionals. This course provides students with theory and clinical approaches to work effectively with issues of human sexuality. Individual, couples, family groups and classroom- guidance approaches will be discussed.

Equivalent Courses

CNS655

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 6082 Advanced Human Sexuality

Course Info

Course Title

Advanced Human Sexuality

Course Description

The purpose of this course is to provide students with an overview of human sexuality for future counseling professionals. Through interactive learning experiences and course assignments, students will gain knowledge, increased comfort and personal insight about such topics as the media, communication, sex research, gender identity and gender roles, sexually transmitted infections, and HIV/ AIDS. The course will emphasize clinical approaches in sexual counseling.

Equivalent Courses

CNS656

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 6083 LGBTQ+ Issues in CNS

Course Info

Course Title

LGBTQ+ Issues in Counseling

Course Description

This course is designed to prepare future professional counselors and other mental health professionals with a comprehensive understanding of the unique lived experiences and challenges that influence the wellbeing of LGBTQ+ communities. Issues explored include mental and physical wellness, sexual, affectional, and gender identity development across the lifespan, psychosocial consequences of heterosexism and transmisia, LGBTQ+ intersectionality, family and relationship issues, and spirituality. Students will learn LGBTQ+ affirmative counseling and advocacy skills and professional ethics for use with LGBTQ+ individuals and groups.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6085 Counsel/Advising College
Stude

Course Info

Course Title

Counseling and Advising the College Student: Admissions, Advising, Retention and Career Planning

Course Description

To understand advising and counseling services for college students. Specifically admissions, retention, academic advising, and college counseling will be discussed.

Equivalent Courses

CNS591

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6090 Phil/Meta-theoretical Issues

Course Info

Course Title

Philosophical and Meta-theoretical Issues in Counseling

Course Description

This course is a thorough introduction to foundational philosophical and meta-theoretical issues in counseling. This course meets student needs, at the master's and doctoral level, to learn about overarching conceptual issues that unify and give meaning to various modes of thought that are represented by counseling ideologies. Prerequisites for Master's students: CNS 500, 510, 520, 530 and 540. Prerequisite for doctoral students: Must be admitted to the Doctor of Philosophy in Education with a major in counseling program.

Equivalent Courses

CNS687

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6095 College Student Dev on Campus

Course Info

Course Title

College Student Development and the Campus Setting

Course Description

Discusses student demographics and characteristics, assessment of student development and campus environments.

Equivalent Courses

CNS592

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6100 Intro School CNS/ Consultation

Course Info

Course Title

Introduction to School Counseling and Consultation

Course Description

Provides an overview of the role of the school counselor at all grade levels, K-12. Includes a study of techniques appropriate for school counseling and guidance programs, provides an overview of issues facing school counselors and examines procedures for organizing and administering such programs. Formerly CNS 562.Prerequisite: Student must be admitted to the MA in counseling degree program or have department permission.

Equivalent Courses

CNS562

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
6

CNS 6101 Sp. Topics /School Counseling

Course Info

Course Title

Special Topics in School Counseling

Course Description

A service learning project-based course involving the application of introductory school counseling concepts in a school setting.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

1

CNS 6150 Intro School CNS/ Consultation

Course Info

Course Title

Introduction to School Counseling and Consultation

Course Description

This course provides an overview of the role of the school counselor at all grade levels, Pre-K-12. Includes a study of techniques appropriate for school counseling and guidance programs, provides an overview of issues facing school counselors, and examines procedures for organizing and administering such programs. Students must be admitted to the MA in Counseling degree program or have department permission.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CNS 6200 Advanced School Counseling

Course Info

Course Title

Advanced School Counseling

Course Description

This advanced course in school counseling provides students with the necessary knowledge and skills to plan, implement, and evaluate a comprehensive, data-driven school counseling program in PreK-12 setting based on the ASCA Model. This course further presents an opportunity for students to identify and discuss issues specific to school counselors. Prerequisite (s): CNS 6100

Equivalent Courses

CNS563

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

3

CNS 6201 Sp. Topics in Adv. School Coun

Course Info

Course Title

Special Topics in Advanced School Counseling

Course Description

An advanced service learning, project-based course involving the application of school counseling concepts in a school setting.

Prerequisite (s):CNS 6100

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

1

CNS 6250 Advanced School Counseling

Course Info

Course Title

Advanced School Counseling: Addictions, Crisis & Systems Advocacy

Course Description

This is an advanced course in school counseling designed for students, preparing to specialize as school counselors, to develop the knowledge and skills to organize and administer a comprehensive, developmentally appropriate school counseling program in a P-12 setting. This course further examines contemporary issues within education, legal and ethical policies in school counseling, cultural competence critical for the diverse/global society, substance abuse prevention and advocacy in the schools, and proactive programming to meet the issues of children and adolescents.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CNS 6400 Diagnosis/Case Conceptualiz'n

Course Info

Course Title
Diagnosis and Case Conceptualization

Course Description
Introduction to case conceptualization and diagnostics from the vantage points of the predominant mental health theoretical systems. Implications of these conceptualizations for treatment planning will also be discussed. Student must be admitted to the MA in clinical mental health degree program or have department permission.

Equivalent Courses
CNS580

College/School
School of Ed. and Human Svcs.

Department
Counseling

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 6500 Mental Health Counseling

Course Info

Course Title
Mental Health Counseling

Course Description
Survey key issues in providing mental health consultation and human services. Legal, historical and social factors are examined including examples of systems approaches to the delivery of employment, mental health, vocational rehabilitation and welfare services. Includes deliver of human services in business and industry settings. Student must be admitted to the MA in clinical mental health degree program or have department permission. Prerequisite (s): CNS 5050, CNS 5060, CNS 5070, CNS 5080, CNS 5090, CNS 6010, CNS 6020, CNS 6030, CNS 6400.

Equivalent Courses
CNS590

College/School
School of Ed. and Human Svcs.

Department
Counseling

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 6600 Addictions in Counseling

Course Info

Course Title

Addictions in Counseling

Course Description

Covers information about drug and alcohol, including history categories, definitions, misuse, abuse, attitudes and reasons for use. Studies the modes of prevention and treatment programs for substance abuse. May be taken with practicum and internship. Formerly CNS 578 - Introduction to Chemical Dependency. Student must be admitted to the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS578, CNS595

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 6900 Spec Problems in Counseling

Course Info

Course Title

Special Problems in Counseling

Course Description

Study of specialized problems in various areas of counseling. Specific topics are based on student needs. May be taken more than once, but for no more than a total of 8 credits. May be elected for independent study. Student must complete prerequisite core courses (CNS 500, CNS 510, CNS 520, CNS 530, and CNS 540) and have permission of instructor.

Equivalent Courses

CNS560

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

1

Maximum Hours

8

CNS 6940 Workshop in Cnsel & Guid

Course Info

Course Title

Workshop in Counseling

Course Description

Evaluation and development of counseling and personnel programs and practices through the study of a particular area of professional service for implementation in school, college, community agency or business setting. Offered on request by school or agency personnel. Formerly CNS 567.

Equivalent Courses

CNS567

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

CNS 6950 Internship in Counseling

Course Info

Course Title

Internship in Counseling

Course Description

A field counseling experience supervised by a qualified counseling professional. Placement is at a site suitable to the counseling emphasis requirements and interests of the student. Related course seminars are conducted by the university instructor. Student must complete final course work as specified in the students authorized degree program plan, including completion of the prerequisite CNS 6960 with a grade of 3.0 or better. Students may take CNS 6000, 6600 and elective class with CNS 6950. Students must be admitted to the MA in counseling or the MA in clinical mental health degree program or have department permission.

Equivalent Courses

CNS665, CNS666

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CNS 6960 Counseling Practicum

Course Info

Course Title

Counseling Practicum

Course Description

Application of counseling and consultation theories and techniques to practice with clients in a supervised lab environment. Includes individual and group clinical supervision of audio and video taped counseling sessions. Student must be admitted to the Master of Arts in counseling and must meet prerequisites (CNS 5050, CNS 5060, CNS 5070, CNS 5080, CNS 5090, CNS 6010, CNS 6020, CNS 6030, CNS 6400, CNS 6500, CNS 6600) with a grade of 3.0 or better.

Equivalent Courses

CNS664

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CNS 7010 Conceptual Models Addiction

Course Info

Course Title

Conceptual Models of Addiction

Course Description

A study of research findings and theories that attempt to explain biological, social and psychological influences on addiction; patterns and impact of pre-addictive and addictive behavior; and recovery from addiction. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS668

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7015 Counselg Chem Dependent

Course Info

Course Title

Counseling the Chemically Dependent

Course Description

An in-depth examination of traditional and innovative approaches to assessing, preventing, treating and evaluating program outcomes for addictive behavior problems. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS678

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7030 Couns Infancy and EC

Course Info

Course Title

Counseling in Infancy and Early Childhood

Course Description

Examines specialized assessment, prevention and intervention approaches to the developmental challenges appearing from the prenatal period through age seven. The family is treated as the primary system for intervention, with additional emphases on play therapy, group experiences, and school and community approaches. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS680

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 7035 Couns Older Child/Adolescent

Course Info

Course Title
Counseling the Older Child and Adolescent

Course Description
Focuses on assessment, prevention and intervention for the emotional, behavioral and academic concerns typically seen from age seven through adolescence. A variety of approaches is taught, including work with families, groups and individuals. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses
CNS681

College/School
School of Ed. and Human Svcs.

Department
Counseling

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 7040 Adv Child and Adolesc Play Tx

Course Info

Course Title
Advanced Child and Adolescent Play Therapy

Course Description
Students will learn about the lifespan development of childhood and adolescence. Play therapy techniques, demonstrations and experiential role plays such as group play therapy will be integrated into the course.

College/School
School of Ed. and Human Svcs.

Department
Counseling

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 7050 Advance Appraisal: Model/ Meths

Course Info

Course Title

Advanced Appraisal: Models and Methods

Course Description

Advanced study of the theory, models, methods and practice of appraisal as it relates to counseling. The course covers a broad range of evaluation procedures with respect to a wide range of issues. Students carry out supervised appraisal projects as part of the course. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS683

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7055 Intelligence Personal Assess

Course Info

Course Title

Intelligence and Personality Assessment

Course Description

The assessment of intellectual functioning and objective and projective personality assessment will be covered. The course will provide for supervised experience in administration of tests, integration of findings and psychological report writing. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS684

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7060 Psychopathology

Course Info

Course Title

Psychopathology

Course Description

An overview of abnormal psychology as it relates to diagnostic criteria from the current DSM manual into formulations of abnormal behavior. Reviews relevant research findings for evaluation and treatment. Explores a variety of intervention strategies appropriate for mental health counselors. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS685

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7070 Advanced Couple/Family

Course Info

Course Title

Advanced Couple and Family Theory

Course Description

Major theories of couple and family counseling will be studied in depth. Ethnic and cultural differences in family systems will be explored. Future trends in the field of systems counseling will be examined. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS693

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 7075 Couple/Family Method/ Technique

Course Info

Course Title

Couple and Family Methods and Techniques

Course Description

Examines the theory and research for a broad-based approach to conceptualizing families' counseling needs. The course emphasizes the variety of family experiences and recognizes the implications of economic, family structural, cultural and other diversities. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS694

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 7080 Advan Couple/Family Devl

Course Info

Course Title

Advanced Couple and Family Development

Course Description

Approaches couple and family functioning from a developmental orientation. The course emphasizes the variety of family experiences, recognizing the implications of economic, family structural, cultural, sexual, and other diversities. Students are encouraged to identify issues that need further research and/or development of specialized intervention techniques. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS695

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 7085 Couple/Family Assessment

Course Info

Course Title

Couple and Family Assessment

Course Description

Emphasizes a theory-based approach to the assessment of family interactions and areas of dysfunction. Coverage includes ethical issues in family assessment and the implications of economic, family structural, cultural, sexual, and other diversities. Students explore the range of existing assessment approaches and their use with a variety of populations. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS696

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

CNS 7095 Advanced Methods: C&F

Course Info

Course Title

Advanced Methods of Couple and Family Counseling

Course Description

Practical application of Couple and Family theories. Includes supervised one-way mirror practice with clients in a lab environment and group supervision of clinical experience. May be elected a second time with instructor's permission for a total of eight hours. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS698

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Credit Hours

Max:

8

Repeat Rules

Repeat Status Code

RP

Maximum Hours

8

CNS 7130 Advanced Career Counseling

Course Info

Course Title

Advanced Career Counseling

Course Description

An advanced course for the practicing or prospective career counselor. It provides opportunities for in-depth study of current issues in career assessment and for practice of a structured career counseling model. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS675

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 7931 Fieldwork in Child & Adol Ther

Course Info

Course Title

Fieldwork in Child and Adolescent Play Therapy

Course Description

A field experience supervised by a qualified child/adolescent counselor. Placement is at a site conducive to enhancing child/adolescent counseling skills. Related seminars are conducted by university supervisors. Student must meet the prerequisites (CNS 680 and CNS 681).

Equivalent Courses

CNS682

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 7940 Sem & Pract in Addictions CNS

Course Info

Course Title

Advanced Seminar and Practice in Addictions Counseling

Course Description

This seminar-format course will enhance students' addiction counseling knowledge and skills. This course is designed to complement a 400-hour, supervised, practical experience at a licensed facility where addiction services are provided.

Equivalent Courses

CNS679

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

RP

CNS 7941 Topical Seminar

Course Info

Course Title

Topical Seminar

Course Description

Specific topics covering a wide range of specific counseling interest areas may be offered under this course heading. Some possible topics include, but are not limited to, human sexuality, wellness counseling, stress management, employee assistance counseling and specific disorders. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS690

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

CNS 7942 Sem: Couple/Family CNS

Course Info

Course Title

Seminar in Couple and Family Counseling

Course Description

Specific topics of interest in the study of couple and family counseling, based on the need of the program, may be offered under this course heading. Some possible topics include, but are not limited to, Multicultural Family Counseling, Counseling the Gay and Lesbian Couple, Counseling the Blended Family, Sexual Development and Adjustment in Couples, Spiritual Issues in Families, and Conflict Resolution for Couples and Families. Student must be admitted to specialization or Ph.D. program or have permission of instructor.

Equivalent Courses

CNS697

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

1

Maximum Hours

99

CNS 8100 Doctoral Prof Seminar I

Course Info

Course Title

Doctoral Professional Seminar I

Course Description

Provides a forum for advanced-level inquiry, discussion and analysis of leadership issues in human services and education from a multi-disciplinary perspective. The seminar examines issues such as human development, knowledge base of education, multiculturalism and diversity, as well as the implications and applications of technology on the study of these topics. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS730

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8110 Doctoral Prof Seminar II

Course Info

Course Title

Doctoral Professional Seminar II

Course Description

The doctoral professional seminar will provide a forum for additional advanced level inquiry, discussion, and analysis of leadership issues in human services and educational from a multi-disciplinary perspective. The seminar will examine issues such as human development, knowledge base of education, multi-culturalism and diversity as well as the implication and applications of technology to the study of these topics. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CIL731, CNS731, EC731, EC9941, ED731, ED9941

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8120 Advanced Theories of CNS

Course Info

Course Title

Advanced Theories of Counseling

Course Description

Studies major theories and cultural discourses used by supervisors, counselors, and clients, with an emphasis on understandings of problem formation and change. Assumptions about normal behavior and pathology will be examined, and theories will be compared for their applicability to a variety of client groups, community needs, presenting problems and practice settings. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS667

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8130 Adv Group Counseling

Course Info

Course Title

Advanced Group Counseling

Course Description

Study of theory and research pertaining to group leadership, composition, selection, intervention, termination, evaluation and follow-up. Students develop a written description of their group counseling approach and have concurrent supervised group counseling experiences. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS673

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8140 Sociocultural/Legal/Ethical

Course Info

Course Title

Socio-Cultural, Legal, and Ethical Issues in Counseling

Course Description

Discussion of ethical and legal traditions and standards, their evolution, methods of change and applications to various professional activities will take place in this course. In addition, this course examines theories and research addressing social and cultural issues as they impact human behavior and counseling processes. Student must be admitted to Ph.D. program or have permission of instructor. Former course CNS 662

Equivalent Courses

CNS662

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 8150 Applied Research

Course Info

Course Title

Applied Research

Course Description

This doctoral-level course examines advanced topics and controversies in applied counseling research. The course provides an overview of advanced quantitative and qualitative research methodologies as they apply to clinical settings. Previously CNS 793

Equivalent Courses

CNS793

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8180 Instruction Theory/Methods CNS

Course Info

Course Title

Instructional Theory and Methods in Counseling

Course Description

An overview of learning theory as it relates to effective teaching and counselor supervision. Psychological issues and cross-cultural issues in teaching and learning will be discussed. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS671

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8190 Research Methodology

Course Info

Course Title

Research Methodology

Course Description

Considers various modes of research inquiry appropriate to the fields of education and human services. Examines a range of conceptions and strategies in light of students' emerging research interests. Studies tools of research, research planning and design, research methodologies and communication of results of research. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS732

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8200 Analytical Methods

Course Info

Course Title

Analytical Methods

Course Description

Offers a variety of research methods for analyzing empirical data. Considers the appropriateness of fit between various analytical procedures and diverse sets of data drawn from a range of settings in education and human services. Examines assumptions underlying different research questions, methods of analysis, statistical designs and procedures, and ways of interpreting data. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS733

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8895 CNS Inquiry: Proposal Plan/Dev

Course Info

Course Title

Counseling Inquiry: Proposal Planning and Development

Course Description

A course designed to prepare the student to conduct advanced research. Specifically, the course will help the student with doctoral dissertation proposal. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS794

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8896 Dissertation Research I

Course Info

Course Title

Dissertation Research I: Data Analysis Lab

Course Description

An overview of statistical software, file management, data entry and data analysis methods. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS795

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8897 Dissertation Research II

Course Info

Course Title

Dissertation Research II: Group Seminar

Course Description

Students pursue their own independent dissertation research. Weekly seminars are held to discuss methodology, research problems and data collection. Student must be admitted to Ph.D. program or permission of instructor.

Equivalent Courses

CNS796

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8940 Seminar in Couns Supervision

Course Info

Course Title

Seminar in Counselor Supervision

Course Description

Topics include theories of supervision, major supervision models, methods of assessing counseling effectiveness and the role of ethics and values in the supervision process. The lab portion of the course will consist of assisting graduate faculty members in supervising counseling education students enrolled in CNS 661 and CNS 664. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS672

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:	Credit Hours
2	Max: 6

CNS 8941 Doctoral Professional Sem I

Course Info

Course Title

Doctoral Professional Seminar I

Course Description

This course is designed to provide students with a thorough introduction to doctoral studies with particular emphasis on scholarly writing, the dissertation process, critical thinking, technology utilization, and analysis of research articles. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS734

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8942 Doctoral Professional Sem II

Course Info

Course Title

Doctoral Professional Seminar II

Course Description

This course is designed to provide students with a thorough introduction to doctoral studies with particular emphasis on scholarly writing, the dissertation process, critical thinking, technology utilization, and analysis of research articles. Second year proseminar students will serve a mentorship and supervisory role for the first year students. These second year students will also provide reports of their ongoing research, the ways that they are utilizing technology, and other ways that they have implemented and integrated the lessons learned from the first year proseminar course into their academic lifestyle. In addition to the usual assignments, second year proseminar students will also be graded according to the degree to which they fulfill their advanced mentorship role in the classroom.

Equivalent Courses

CNS735

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8950 Doctoral Internship

Course Info

Course Title

Doctoral Internship

Course Description

A field of experience supervised by a qualified counseling or mental health professional. Placement is at a site consistent with the student's career goals. Related seminars/supervision are conducted by the university supervisor. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS790

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8960 Doctoral Internship II

Course Info

Course Title

Doctoral Internship II

Course Description

The purpose of Internship II is to expand the breadth of experience acquired through Internship I to prepare students for career goals in counselor education and/or professional counseling settings. Between Internship I and II, students must document a total of 600 hours of approved internship activities in at least three of the five doctoral curricular areas (counseling, teaching, supervision, research/scholarship, and leadership/advocacy), which satisfies the CACREP requirement of doctoral preparation. In Internship II, students gain clinical experience by providing clinical supervision. Students develop internship plans that are guided by professional interests and goals that extend their work beyond current or past levels of experience in at least one of the other following areas: 1) teaching, 2) research and scholarship, and 3) leadership and advocacy, or 4) counseling (e.g., novel clinical population or technique). Students document their progress throughout the course and process their learning on an ongoing basis. Because the purpose of the doctoral internship is to expand professional experiences, current job responsibilities cannot be used to satisfy the 600-hour internship requirement.

Equivalent Courses

CNS780

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

CNS 8970 Indep. Study in Counseling

Course Info

Course Title

Independent Study in Counseling

Course Description

Course involves guided independent investigation of a student's self-selected topic. Student must be admitted to Ph.D. program.

Equivalent Courses

CNS760

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

CNS 8971 Doctoral Internship I

Course Info

Course Title

Doctoral Internship I

Course Description

This course serves as an opportunity for students to gain direct professional counseling experience (mandatory) and experience in at least one of the following areas: 1) teaching, 2) research and scholarship, and 3) leadership and advocacy. The course involves application of counseling and consultation theories and techniques. Therefore, students are expected to develop advanced skills and greater insight and depth of understanding of their evolving counseling theories through direct counseling, clinical supervision, classroom interaction, and professional reading. Experience includes individual and group clinical supervision of counseling sessions, case presentations, and reviews of counseling sessions. Additionally, demonstrated experience in either teaching, research/scholarship or leadership and advocacy during the semester affords students exposure to multiple areas of counselor education. Professional counseling experience must consist of a minimum of 20 direct hours and a minimum of 30 indirect hours. Additionally, it is required that you complete a minimum of 150 hours of experience in 1) teaching, 2) research and scholarship, or 3) leadership and advocacy according to your professional interests and goals during Internship I.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CNS 8972 Doctoral Internship II

Course Info

Course Title

Doctoral Internship II

Course Description

The purpose of Internship II is to expand the breadth of experience acquired through Internship I to prepare students for career goals in counselor education and/or professional counseling settings. Between Internship I and II, students must document a total of 600 hours of approved internship activities in at least three of the five doctoral curricular areas (counseling, teaching, supervision, research/scholarship, and leadership/advocacy), which satisfies the CACREP requirement of doctoral preparation. In Internship II, students gain clinical experience by providing clinical supervision. Students develop internship plans that are guided by professional interests and goals that extend their work beyond current or past levels of experience in at least one of the other following areas: 1) teaching, 2) research and scholarship, and 3) leadership and advocacy, or 4) counseling (e.g., novel clinical population or technique). Students document their progress throughout the course and process their learning on an ongoing basis. Because the purpose of the doctoral internship is to expand professional experiences, current job responsibilities cannot be used to satisfy the 600-hour internship requirement.

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CNS 8999 Dissertation Research III

Course Info

Course Title

Dissertation Research III: Implementation and Writing

Course Description

Students pursue their own independent dissertation research with scheduled seminars held to discuss and review student progress. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CNS799

College/School

School of Ed. and Human Svcs.

Department

Counseling

Credits

Credit Hours

Units:

2

Credit Hours

Max:

6

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
98

Maximum Hours
98

COM 5002 COM Studies Scholarship

Course Info

Course Title

Communication Studies Scholarship

Course Description

Provides an introduction to graduate studies in communication. It introduces students to the breadth of communication theory and research methods and familiarizes students with the skills necessary to succeed as graduate students. Emphasis is placed on historical and contemporary trends in the discipline.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

COM 5100 Qualitative Methods in Com

Course Info

Course Title

Qualitative Methods in Communication

Course Description

Study and application of qualitative methods in communication research with an emphasis on the use of critical methods. Formerly COM 622.

Equivalent Courses

COM622

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	4

COM 5101 Quantitative Methods in Com

Course Info

Course Title

Quantitative Methods in Communication

Course Description

Provides graduate students with the principles and skills necessary to critique research literature, including developing proficiencies in structuring designs basic to descriptive and experimental studies such as data collection, analysis, and presentation techniques in communication research. Formerly COM 652.

Equivalent Courses

COM652

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5204 Political Communication

Course Info

Course Title

Political Communication

Course Description

Examines the role of persuasive communication in influencing and legitimizing political actions and decisions in democratic contexts. Cross-listed with COM 4204.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	1	4
NR		

COM 5410 Advanced Interpersonal Com

Course Info

Course Title

Advanced Interpersonal Communication

Course Description

Advanced current research and theories in relational communication. Shows how communication is the force behind the initiation, development, maintenance, and deterioration of interpersonal relationships. COM 5410 is cross listed with COM 4400. Student cannot receive credit for both courses. Formerly COM 505.

Equivalent Courses

COM505

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5411 Family Communication

Course Info

Course Title

Family Communication

Course Description

Introduction to communication in family settings. Major theoretical perspectives on family communicative practices including analysis of members' verbal and nonverbal interactions. Major themes include the process by which family communication is maintained, enhanced or disturbed. COM 5411 is cross listed with COM 4401. Student cannot receive credit for both courses. Formerly COM 510.

Equivalent Courses

COM510

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5412 Nonverbal Communication

Course Info

Course Title

Nonverbal Communication

Course Description

Advanced topics and readings in nonverbal communication. Students will read and critique nonverbal communication and theories on topics such as deception, immediacy, and expectancy violations across communication contexts, including romantic, workplace, and classroom. COM 5412 is cross listed with COM 4403. Student cannot receive credit for both courses. Formerly COM 525. Prerequisite: Appropriate background in interpersonal/relational communication.

Equivalent Courses

COM525

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

COM 5413 Com and Leadership

Course Info

Course Title

Communication and Journalism

Course Description

Leadership has always been important in human history and the modern era is no exception. However, the practice of effective leadership is seldom taught and frequently misunderstood. The goal of this course is to explore leadership primarily from a perspective that emphasizes the importance of communication. The concepts and skills explored in this course will allow students to have a better understanding of how leadership works (and does not work) and a better understanding of how communication is central to effective leadership. This course will also allow students to analyze the leadership around them and to develop and improve their own abilities as leaders.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5414 Health Com and Close Rel

Course Info

Course Title

Health Communication and Close Relationships

Course Description

This course provides an overview of contemporary literature in health communication within interpersonal communication and close relationships. Cross-listed with COM 4414.

Equivalent Courses

COM4414

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 5415 Sexuality and Com

Course Info

Course Title

Sexuality and Communication

Course Description

This course examines the meaning of sexuality and diversity, in relationship to our personal and professional identities, and how these differences are socially and communicatively constructed. Students will critically examine normative notions of sexuality across axes of sex, abilities, race, class, marital status, kinship ties, and age, paying particular attention to how diverse identities and relationships challenge these norms.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5730 Theorizing Media

Course Info

Course Title

Theorizing Media

Course Description

Examines the key theoretical issues in the field of media studies as related to the historical development of mass communication. Provides firm grounding in the central assumptions, approaches and schools of thought that have shaped our understanding of media. Formerly COM 6650 or COM 673.

Equivalent Courses

COM6650

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 5900 Special Topics in COM

Course Info

Course Title

Special Topics in Communication

Course Description

This course examines instructor selected special topics and/or areas of interest within the field of Communication Studies.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	1	8
RP		

COM 5950 Internship

Course Info

Course Title

Internship

Course Description

This course consists of a supervised work training experience that takes place in an office or remote setting over the course of 150 hours and 12 weeks. Students secure an internship that allows them to apply communication specific knowledge and skills, typically in the areas of public relations, social media marketing, radio broadcasting, television broadcasting, promotions and event planning, non-profit management, advertising, and community, corporate, and governmental affairs. The internship is designed to provide a solid foundation of professional skills and knowledge for which students can receive college credit. Cross-listed with COM 4950

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 5970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Program of directed study under the guidance of a faculty adviser. Enrollment in this course must receive prior approval by the departmental graduate committee. Formerly COM 599. Prerequisite: Students must have completed 20 or more communication graduate credits prior to enrolling.

Equivalent Courses

COM599

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

NR

COM 6210 Culture and Communication

Course Info

Course Title

Culture and Communication: Contexts and Issues

Course Description

Examines the global context of intercultural encounters with emphasis on mapping the deep historical roots of inequality that structure relations within and between nations and peoples. Formerly COM 626.

Equivalent Courses

COM626

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6211 Culture/Power/Representation

Course Info

Course Title

Culture, Power and Representation

Course Description

Examines the various theories of representation; the ethnic, racial, and gendered production of difference; the relation between discourse and subjectivity; and the poetics and politics of representation. Formerly COM 629.

Equivalent Courses

COM629

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6212 Com and Cultural Citizenship

Course Info

Course Title

Communication and Cultural Citizenship

Course Description

Foregrounds the relationship between discourse, citizenship, and social change by examining the role that communication plays in cultural articulations of citizenship. Scrutinizes arguments, policies, methods, and artifacts advanced in communication research on citizenship, from its performance in popular culture to its legal, social, and political manifestations. Formerly COM 634.

Equivalent Courses

COM634

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6350 Feminist Rhetorical Theory

Course Info

Course Title

Feminist Rhetorical Theory

Course Description

Examines the intellectual debates and developments that inform research in feminist rhetorical theory and criticism. Provides a survey of feminist rhetorical theories, including traditional, critical-cultural, postmodern, and postcolonial approaches. Formerly COM 627.

Equivalent Courses

COM627

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6450 Interpersonal Com Theory

Course Info

Course Title

Interpersonal Communication Theory

Course Description

Examines theories central to relationships in a variety of contexts such as: organizational, romantic, small groups, friendships, and the practice of persuasion. Formerly COM 650.

Equivalent Courses

COM650

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6460 Organizational Com Theory

Course Info

Course Title

Organizational Communication Theory

Course Description

Provides an overview of the development of organizational communication theory. Students will explore literature that was seminal in this historical process and articles that describe and reflect this development. Theories will be taken beyond the abstract and applied to actual and hypothetical contexts. Existing theory will then be synthesized and extended in an attempt develop new organizational theory.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 6610 Global Media Studies

Course Info

Course Title

Global Media Studies

Course Description

Examines issues surrounding international media, including globalization theory, comparative media systems, cultural imperialism, and cultural information flows. Formerly COM 670.

Equivalent Courses

COM670

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

COM 6620 Video Games and Identity

Course Info

Course Title

Video Games and Identity

Course Description

Study of the role that video game texts play in identity construction. Investigation of how identities are formed and how video texts represent diverse identities.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 6621 Gender, Sexuality

Course Info

Course Title

Gender, Sexuality, and the Media

Course Description

In-depth exploration of the complex relationship between gender, sexuality, and the media. Examine the ways that media institutions, texts, and audiences construct, negotiate, and interpret changing concepts of masculinity, femininity, and sexual preference. Emphasis on key theoretical and methodological debates, developing critical vocabularies, and conducting original research.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

COM 6625 Audience Rsrh in Media
Studies

Course Info

Course Title

Audience Research in Media Studies

Course Description

Provides a survey of key theoretical and methodological issues related to studying audiences within media and communication research. Focus on application of qualitative and critical approaches to studying media audiences. Prerequisite(s): Com 5000 or instructor permission.

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 6900 Spec Topics/Culture and Comm

Course Info

Course Title

Special Topics in Culture and Communication

Course Description

Special topics in critical cultural communication studies. May be repeated for credit under different course subtitle. Formerly COM 685.

Equivalent Courses

COM685

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

2

Maximum Hours

12

COM 6994 Comprehensive Exam

Course Info

Course Title

Comprehensive Exam

Course Description

Comprehensive examination by a degree candidate based on approved reading list and administered by a three-faculty committee. Formerly COM 688.

Equivalent Courses

COM688

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

COM 6996 Creative Project

Course Info

Course Title

Creative Project

Course Description

Completion of a creative project by a degree candidate with approval of his/her project committee. Formerly COM 696.

Equivalent Courses

COM696

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

NR

COM 6998 Thesis

Course Info

Course Title

Thesis

Course Description

Completion of a research project by a degree candidate with approval of his/her thesis committee. Formerly COM 699.

Equivalent Courses

COM699

College/School

College of Arts and Sciences

Department

Communication, Journalism & PR

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CSE 570 Real Time Microprc Sftw & Sys

Course Info

Course Title

Real Time Microprocessor Software and Systems

Course Description

The course emphasizes microprocessor-based real-time computer systems design for embedded systems applications. Topics include interfacing microprocessors with external systems such as sensors, displays, and keyboards; real-time software development considerations; microcontroller subsystems such as clock and timer modules, memory subsystems, analog interfacing, and serial communications; control area network (CAN); real-time operating systems. Laboratory and design projects. This course is cross listed with an undergraduate course. Credit cannot be earned for more than one of CSE 470, CSE 570, ECE 470, ECE 570, EE 470, and EE 570. Students must meet prerequisite (CSE 508 or equivalent).

Equivalent Courses

ECE570, EE570

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

0

Credit Hours

Max:

4

CSI 5005P Object Oriented Computing

Course Info

Course Title

Object Oriented Computing

Course Description

Introduction to object-oriented computer programming using a high-level programming language such as Java. Classes, member functions, inheritance, polymorphism and operator overloading. Design methodologies and introduction to software engineering principles and practices. Basic data structures are introduced. Formerly CSE 505, CSE 0505. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of CIT 230, CIT 2300, CSE 230, CSI 2300, CSE 505, CSI 5005, CSE 0505. Course repeats are not permitted. Credit not applicable toward an M.S. degree.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5008 Computer Hardware Design

Course Info

Course Title

Computer Hardware Design

Course Description

Development of components and techniques needed to design basic digital circuits and systems for computers, communication and related applications. Design and analysis of combinational and sequential logic circuits using a hardware description language such as VHDL. Design of a small digital computer and its implementation in an FPGA. Formerly CSE 0508, CSE 508. This course is cross listed with an undergraduate course. Credit can be received for only one of CSE 0508, CSE 378, CSI 3710, CSE 508, CSI 5008. Course repeats are not permitted. Credit not applicable toward an M.S. degree.

Equivalent Courses

CSE0508, CSE508

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

CSI 5100 Ethics & Bias in AI

Course Info

Course Title

Ethics Bias in AI

Course Description

In this course students will acquire the tools to critically think, read, and write about AI in sociotechnical contexts. They will master the vocabulary and concepts necessary to identify, interrogate, and plan for the ethical implications of AI as a technological, social, and cultural phenomenon. Cross-listed with CSI 4100.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5110 Foundations of Edge AI

Course Info

Course Title

Foundations of Edge AI

Course Description

The course covers many topics including the importance of power efficiency, latency, and bandwidth considerations for AI/ML implementation on edge devices. The course will cover how computing can be distributed between the edge devices and the cloud. Cross-listed with CSI 4110.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5130 Artificial Intelligence

Course Info

Course Title

Artificial Intelligence

Course Description

This course provides an introduction to the fundamental techniques of artificial intelligence for problem-solving and inference. Topics include uninformed and informed search, adversarial search, reasoning under uncertainty, knowledge representation, planning, and machine learning models. Individual or group projects on current applications in AI. Cross-listed with 4130. Prerequisites: APM 2663 or equivalent.

Equivalent Courses

CSE513

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5140 Deep Learning and Applications

Course Info

Course Title
Deep Learning and Applications

Course Description
Introduction to learning, background knowledge for computer vision and natural language processing, linear models for regression and classification, perceptron learning, backpropagation and shallow neural networks, deep learning basics and software frameworks, convolutional neural networks, applications in object detection and semantic segmentation, autoencoders, visualization of learned convolution masks, recurrent neural networks, applications to sequences, generative adversarial networks, reinforcement learning. Cross-listed with CSI 4140.

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5150 AI for IT Operations

Course Info

Course Title
AI for IT Operations

Course Description
This course introduces participants to MLOps tools and best practices for deploying, evaluating, monitoring and operating production ML systems on the Cloud. MLOps is a discipline focused on the deployment, testing, monitoring, and automation of ML systems in production. Cross-listed with CSI 4150.

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5160 Integrated Computing Systems

Course Info

Course Title
Integrated Computing Systems

Course Description
The course integrates various system components such as databases, web servers, user APIs, and cloud technologies and services. Topics include integration of various devices with web servers and cloud services. Students will gain hands-on experience in developing and integrating each of these system components with exposure to appropriate hardware, software, and simulation platforms. Cross-listed with CSI 4160.

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5170 Machine Learning

Course Info

Course Title
Machine Learning

Course Description
Introduction to recognition and learning; Bayes decision theory; parametric and nonparametric methods including Hidden Markov models; Discriminant functions including support vector machines; Multilayer neural networks; Decision and regression trees for learning; Performance estimation; Unsupervised learning and clustering; Subspace methods; Application. This course requires backgrounds on data structures and algorithms. Formerly, CSE 616 and CSI 6160. Cross-listed with CSI 4170.

Equivalent Courses
CSE616, CSE6160

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5180 Natural Language Processing

Course Info

Course Title

Natural Language Processing

Course Description

This course introduces the linguistic, mathematical, and computational fundamentals of natural language processing: the creation of computer programs that model human languages (e.g., English), enabling applications like text categorization, machine translation, and chatbots. Topics include text preprocessing, language modeling, classification, tagging, parsing, semantics, text generation, and modern NLP toolkits. Non-CS majors should have some programming background. Cross-listed with CSI 4180.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5200 Fundamentals/Software Modeling

Course Info

Course Title

Fundamentals of Software Modeling

Course Description

Laboratory oriented course on mathematical modeling of Software Engineering Issues: Program Specifications: Direct and indirect specifications, assertions; mathematical concepts involved: Propositions, Predicate calculus. Abstraction Notations: Sets and set operations, sequences, maps, bags, lambda notation. Algorithm Definition: Functions, operations, polymorphic functions, higher order functions. Stepwise Program Refinement: Programming by contract, correctness maintaining transformations; Static Analysis of Computer Programs: Relations, Flowgraphs, Data and Control Dependencies, Detection of Anomalies. Modeling Software Design: Procedure Call Graph, modules' export/import relations. Modeling Program Execution: Computation trace, dynamic data and control dependencies. This course requires backgrounds on object-oriented programming, data structures, and algorithms. Formerly CSE 520.

Equivalent Courses

CSE520

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Limit	Maximum Hours
1	4

CSI 5220 Object Oriented Analy & Design

Course Info

Course Title
Object Oriented Analysis and Design

Course Description
This course covers the methodologies of object oriented (OO) modeling during the planning, analysis and design stages of software systems development. Predominant methodologies and techniques such as the Unified Modeling Language (UML) will be surveyed. OO programming using an OO language such as C++ or Java is not covered in this course. Topics include both process oriented issues, such as the application of use case modeling during OO requirements analysis, and product-oriented issues, such as the definition of an OO design using class diagrams. This course requires backgrounds on object-oriented programming, data structures, and algorithms. Formerly CSE 522.

Equivalent Courses
CSE522

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

CSI 5230 Android Application Developmen

Course Info

Course Title
Android Application Development

Course Description
The course focuses on Android application development using underlying frameworks, architecture, design, and implementation. Both classroom theory and hands-on labs enable students to gain in-depth experience in developing real-world Android applications. Topics include Android user interface development, Android application framework components, sensors integration, networking and persistent storage. Cross-listed with CSI 4230.

Equivalent Courses
CSE523

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5240 Cloud Computing

Course Info

Course Title

Cloud Computing

Course Description

The course explores latest advances in hardware and software, system architecture, and new programming paradigms that are used to develop high-throughput distributed computer systems. Topics covered include computer clusters, virtual machines, automated data centers, cloud platform architectures, service-oriented architectures, cloud programming and software environments, grid computing, and peer-to-peer computing. The course will be supplemented by selected topics from recent technical literature. It includes a semester-long team project. Cross-listed with CSI 4240. Formerly CSE 524. Credit cannot be received for more than one of CSE 524, CSI 5240, CIT 424, CIT 4240, CSE 424 or CSI 4240.

Equivalent Courses

CSE524, CSI4240

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CSI 5300 Software Prototypg/Validation

Course Info

Course Title

Software Prototyping and Validation

Course Description

This is a project-oriented course geared towards the creation of a validated, interpretable and thoroughly tested model of software for which, in most cases, C++ code can be automatically generated. It builds on the VDM-SL notation covered in CSE 520 and is supported by the VDM-SL Toolbox, TOPICS: Program development cycle. Principles of step-wise, correctness preserving refinement. Requirements synthesis; Direct and indirect models; Operation refinement for structured programming constructs. Data refinement: Abstract Data Types (ADT) in program development, user-defined types, representation of ADT. Model validation: testing and proof obligations; automated random testing of the final model using an executable postcondition of the problem as a test oracle. Previously CSE 537, CSE 530. Credit can be received for only one of CSE 530, CSI 5300, or CSE 537.

Equivalent Courses

CSE530, CSE537

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5350 Programng Languages Compilers

Course Info

Course Title
Programming Languages and Compilers

Course Description
Modern topics in programming languages such as aspect-oriented programming, constraint programming, logic programming, formal syntax and operational semantics. Aspects of language compilation such as lexical analysis, syntactic analysis and translation. Formerly CSE 535. Students must have graduate standing.

Equivalent Courses
CSE535

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5360 Concurrent/Multi-Core Prgmng

Course Info

Course Title
Concurrent and Multi-Core Programming

Course Description
This course will focus on concepts, theory, design and implementation of concurrent programs for multi-core computers, multi-core programming methodologies. Topics covered include mutual exclusion, memory model and thread-based parallelism, fork-join framework, locks, parallel control flow, concurrent data structures. Formerly CSE 536. This course is crosslisted with undergraduate courses (CIT 4360 and CSI 4360). Credit will not be given for more than one of CIT 436, CIT 4360, CSE 436, CSI 4360, CSE 536, CSI 5360.

Equivalent Courses
CSE536

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5370 Software Verification/Testing

Course Info

Course Title

Software Verification and Testing

Course Description

This course is designed to introduce the basic principles and techniques, facilitated by state-of-the-art software tools, in software verification and testing. Real-world examples are adopted to help understand and practice the underlying theory. Prerequisite: Student must have graduate standing. Formerly CSI 5380. Cross-listed with CSI 4370.

Equivalent Courses

CSE538

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

CSI 5380 Software Verification/Testing

Course Info

Course Title

Software Verification and Testing

Course Description

The course consists of three main parts: Formal Verification (proofs of correctness), Static Program Analysis (detection of program anomalies, explanatory analysis, static debugging) and Dynamic Program Analysis (testing and debugging), the latter two representing software engineering approach to software verification. Most of the course consists of lectures by the instructor and discussions of the assignments. If the size of the class is relatively small, a seminar could be required in lieu of an assignment. Two software tools are used: SPARK (Static Analysis, Verification), and STAD (System for Testing and Debugging) for static analysis and testing. Formerly CSE 538. Prerequisite: Student must have graduate standing.

Equivalent Courses

CSE538

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5390 Software Engineering

Course Info

Course Title

Software Engineering

Course Description

An overview of software development processes, tools and techniques from the perspective of learning what they can and cannot do; deciding when, how and why to apply them; and selecting among the available alternatives. Requirements analysis and specification techniques; life-cycle models; process modeling; software design methods; project planning and management; quality assurance; configuration management; program and system testing. This course requires a background on data structures. Formerly CSE 539. Credit can be received for only one of CSE 439, CSE 539, CSI 5390.

Equivalent Courses

CSE539

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CSI 5410 Software Proj Plan/Mgmt/Maint

Course Info

Course Title

Software Project Planning, Management and Maintenance

Course Description

Software project planning and management topics include uncertainty and risk analysis; planning a software project; project modeling, scheduling and milestones; resource allocation; software cost estimation; mechanisms for monitoring and controlling schedule, budget, quality and productivity; staffing, leadership, motivation, and team building; communication management and project documentation. Formerly CSE 541.

Equivalent Courses

CSE541

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5420 Rapid Proto & Component Software

Course Info

Course Title

Rapid Prototyping and Component Software

Course Description

Methodologies for rapid prototyping and component software use. Topics include: platforms for rapid prototyping and object-oriented software development; available software components; object request brokers (COM/CORBA/OLE); data modeling, transaction processing and federated database; client and server web technologies. A theory and project oriented course. Formerly CSE 542.

Equivalent Courses

CSE542

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5430 IT Project Management

Course Info

Course Title

IT Project Management

Course Description

Principles, practices, and tools used in planning and implementing IT projects involving hardware, software, and networks to create a product, service, or result. Using the framework of IT project life cycle, the course covers various aspects of project initiation, planning, scheduling, monitoring, and quality control. Selecting and procuring IT systems, project team management, cost and effort estimation, risk management, and mini-case studies leading to a complex class project. Cross-listed with CSI 4430.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5450 Database Systems I

Course Info

Course Title
Database Systems I

Course Description
This course introduces the fundamental concepts of NoSQL databases required to effectively manage the data storage and query requirements of modern-day applications in a scalable manner. The course covers the architecture, implementation, and use cases of four major NoSQL database categories: document, key-value stores, column-oriented, and graph. Cross-listed with CSI 4450.

Equivalent Courses
CSE545

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5460 Information Security

Course Info

Course Title
Information Security

Course Description
Introduction to cryptography and its application to networking and operating system security. Topics covered include secret key and public key cryptographic algorithms, hash functions, authentication, digital signature, digital certificate, key management, email security, web security, SSL/TLS, IP security and wireless security, firewalls, intrusion detection and traceback techniques, security threats and countermeasures, and legal and ethical issues. Independent research on network security is required as student projects. Cross-listed with CSI 4460.

Equivalent Courses
CSE681, CSI4460

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5470 Computer Networks

Course Info

Course Title
Computer Networks

Course Description
Topics covered include TCP/IP fundamentals, performance measurement and evaluation of TCP/IP networks (tcpdump, tcpstat, jplot, NetPIPE), network simulation (NS OPNET), modeling, TCP/IP performance in emerging networks, congestion control, queue management, traffic management, TCP flavors and implementation. Current research topics are also covered. TCP networks are simulated and analyzed as student projects. Crosslisted with CSI 4470. Formerly CSE 647 and CSI 6470. Credit can only be received for one of CSI 4470 or CSI 5470.

Equivalent Courses
CSI4470

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

CSI 5480 Information Security Practice

Course Info

Course Title
Information Security Practice

Course Description
Introduction to both theoretical and hands-on aspects of vulnerability assessment, penetration testing, and system hardening. Topics include basics of confidentiality, integrity and authentication; footprinting, scanning, assessment and validations of systems and application vulnerabilities; system remediation, implementation of security policies using host and network level firewalls and intrusion detection and prevention system. Slash course with CSI 4480. With laboratory.

Equivalent Courses
CSE548

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5490 Wireless & Industrial Networks

Course Info

Course Title

Wireless and Industrial Networks

Course Description

Wireless networking topics covered include wireless computer network protocols (802.11, WiMax), wireless personal area network protocols (Bluetooth, ZigBee), wireless sensor networks and cellular networks. Industrial and embedded networking topics covered include Controller Area Network (CAN), Modbus, Profibus, Foundation Fieldbus and Industrial Ethernet. Networking applications are designed and implemented as student projects. Formerly CSE 549.

Equivalent Courses

CSE549

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5500 Operating Systems I

Course Info

Course Title

Operating Systems I

Course Description

This course focuses on distributed operating systems. Topics covered include communication protocols for message passing and remote procedure calls, synchronization of distributed systems; processes and processors; distributed file systems; distributed shared memory; Grid computing, and security issues. Formerly CSE 552. Slash course with CSI 4500.

Equivalent Courses

CSE552

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5510 Adv Web Design & Application

Course Info

Course Title

Advanced Web Design Application

Course Description

Advanced concepts in WEB design including protocols for integrating databases and effective information exchange necessary for developing enterprise resource management systems are covered. Evolving technologies and web application development architectures, including multi-tier processing, session management, security, and availability are discussed. The students complete a web application as a part of the course. Formerly CSE 551. Cross-listed with CSI 4510.

Equivalent Courses

CSE551

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CSI 5550 Visual Computing

Course Info

Course Title

Visual Computing

Course Description

This course is a comprehensive introduction to image processing and computer vision in the spatial domain. Topics include digital image fundamentals, intensity transformations, spatial filtering, morphological image processing, and image registration and image segmentation. Cross-listed with CSI 4550.

Equivalent Courses

CSE555, CSE618

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

CSI 5580 AI for Cybersecurity & Privacy

Course Info

Course Title

AI for Cybersecurity & Privacy

Course Description

Study of AI and machine learning algorithms customized for cyber security problems such as intrusion detection, malware classification, or network analysis. Topics include fundamentals of machine learning and deep learning, intelligent threat detection, user behavior analytics, machine learning in hacking, privacy-preserving machine learning, adversarial machine learning and countermeasures. Cross-listed with CSI 4580.

Equivalent Courses

CSI5120

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5600 Network Security

Course Info

Course Title

Network Security

Course Description

Network Security will provide students a good understanding of different security aspects related to computer networks. Methods of network attacks and ways to defend against them will be discussed. Topics include attacks to different layers, security technologies, link layer security, network layer security, transport layer security and application layer security. Formerly, CSE 660 and CSI 6600. Cross-listed with CSI 4600

Equivalent Courses

CSE660, CSI6600

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5610 Adv Data Structures/ Algorithms

Course Info

Course Title

Advanced Data Structures and Algorithms

Course Description

The course systematically studies advanced data structures and the design and analysis of algorithms. The main focuses are the techniques for designing algorithms using appropriate data structures, proving correctness, and analyzing the computational complexity of algorithms. Topics covered include: hash tables; data structures for combinatorial optimization; search trees; recurrence relations; divide and conquer; dynamic programming; greedy methods; advanced graph algorithms; linear programming. This course will be supplemented by algorithms selected from recent technical literature. CSI 5610 is cross-listed with APM 5610. Students may not receive credit for both courses. Formerly CSE 561.

Prerequisite: Student must have graduate standing.

Equivalent Courses

CSE561

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5640 Computer Architecture

Course Info

Course Title

Computer Architecture

Course Description

The course explores current trends and future directions in processor micro-architecture as well as various hardware and software techniques in high-performance computing. A review of pipeline and memory hierarchies is followed by advanced topics including branch prediction, dynamic scheduling, superscalar techniques, speculative execution, prefetching, high-speed I/O, VLIW, multi-threaded processors, and application-specific processors such as those for embedded and multimedia systems. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of CSE 464, CSE 564, CSI 5640. Formerly CSE 564.

Equivalent Courses

CSE564

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5700 Software Security

Course Info

Course Title

Software Security

Course Description

Introduction to research in foundations of software security. This course surveys common software vulnerabilities, including buffer overflows, format string attacks, cross-site scripting and botnets. The course also discusses common defense mechanisms, including static code analysis, reference monitors, language- based security, secure information flow and others. This course is cross listed with CSI 4700.

Equivalent Courses

CSE572

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5710 Computer Hardware Design

Course Info

Course Title

Computer Hardware Design

Course Description

Development of components and techniques needed to design basic digital circuits and systems for computers, communication and related applications. Design and analysis of combinational and sequential logic circuits using a hardware description language such as VHDL. Design of a small digital computer and its implementation in an FPGA. Cross-listed with CSI 4710.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5730 Non-crypto methods for S & P

Course Info

Course Title

Non-Cryptographic Methods for Network Security and Privacy

Course Description

This course introduces the latest development of non-cryptographic designs that give networks built-in security and privacy features by exploiting physical layer, link layer, and network layer characteristics of the system, including wireless link/channel signatures, wireless device signatures, traffic footprint, randomized and multipath routing and forwarding etc.

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5740 Cyber Laws & Digital Forensics

Course Info

Course Title

Cyberlaw, Forensics and Electronic Discovery

Course Description

This course provides a general overview of the fundamentals of computer forensics, the role of a cyber forensics specialist, computer forensic evidence and introduction of real world problems in collecting and processing digital evidence. Formerly CSE 574. Cross-listed with CSI 4740

Equivalent Courses

CSE574

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5760 Embedded Syst Dsgn Using FPGAs

Course Info

Course Title

Embedded Systems Design Using FPGAs

Course Description

The use of hardware description languages such as VHDL in the design of embedded systems containing both an FPGA and a microprocessor; high-level design tools to specify, simulate and synthesize designs to FPGAs, design examples. Previously CSE 670, CSE 576. Credit can be received for only one of CSE 670, CSE 576, CSI 5760, ECE 576, ECE 5730. Prerequisite: CSI 5008 or equivalent.

Equivalent Courses

CSE576, CSE670, ECE5730, ECE576

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5780 Bioinformatics

Course Info

Course Title

Bioinformatics

Course Description

This course covers the fundamental algorithms and computational methods for study of biological sequence data for comparative biology and evolution with the focus on discovery of genome content, function and organization. Specific methodologies covered include the algorithms for searching sequence databases, pair-wise and multiple sequence alignment, phylogenetic methods, and methods for pattern recognition and functional inference from sequence data. Cross-listed with CSI 4780.

Equivalent Courses

CSE591

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5800 AI-Human Interaction

Course Info

Course Title
AI-Human Interaction

Course Description
This course aims to teach the current state of the art and techniques for creating human-computer interfaces that make AI usable, useful, and explainable to the end user. Professional designers of AI-human interaction leverage skills other than programming. Cross-listed with CSI 4800.

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5810 Info Retrieval/Knowldg Discov

Course Info

Course Title
Information Retrieval and Knowledge Discovery

Course Description
This course covers the models for information retrieval from text and multimedia databases. Methodologies for database indexing and visualization are discussed. Statistical and deterministic algorithms for discovering knowledge from databases, including, decision trees, clustering, regression, and neural models are covered. Formerly CSE 581. Cross-listed with CSI 4810. Prerequisite: CSI 5450 or equivalent.

Equivalent Courses
CSE581

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

CSI 5830 E-Commerce and ERP

Course Info

Course Title

E-Commerce and ERP

Course Description

This course focuses on the evolving technologies on the world wide web that support new models of business. These models include 1) electronic commerce with concerns of fault tolerance, security, and 24x7 availability and 2) ERP with concerns of financial, human resource and manufacturing systems integrating together into inter-company supply chain systems. This course is cross listed with an undergraduate course (ISE 480). Credit can be received for only one of ISE 480, ISE 4480, ISE 580, ISE 5480, CSE 583, and CSI 5830. Formerly CSE 583.

Equivalent Courses

CSE583, ISE5480, ISE580

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Study of special topics in computer science and engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly CSE 595.

Equivalent Courses

CSE595

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

CSI 5950 Professional Practice

Course Info

Course Title
Professional Practice

Course Description
An internship/industry project related to program of study. Must be approved prior to registration. The student must submit a report that is graded by supervising faculty. Formerly CSE 596

Equivalent Courses
CSE596

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

CSI 5970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Independent study in a special area of computer science and engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly CSE 594.

Equivalent Courses
CSE594

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	12

CSI 6450 Database Systems II

Course Info

Course Title

Database Systems II

Course Description

This course is designed to serve as a bridge between studying databases and doing research in databases. Each section of this course will have a specified theme of current research interest. Themes covered in the past include Federated databases, Active databases, Transaction processing in advanced applications, and Data on the Web. The course is run on a seminar like format. About half of the lectures are presented by the students. Throughout the semester, students gain the necessary background to understand technical and practical issues related to the theme, survey research proposals related to these issues, and possibly formulate a research proposal for master thesis work. Formerly CSE 645. Prerequisite: CSI 5450.

Equivalent Courses

CSE645

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 6500 Operating Systems II

Course Info

Course Title

Operating Systems II

Course Description

Study of state-of-the-art operating system topics including resource management, virtual machines, operating system reliability and scalability, mobile computing, power management, cloud computing, and peer-to-peer computing. Students are exposed to current research in operating systems. Formerly CSE 652. Prerequisite: CSI 5500 or equivalent.

Equivalent Courses

CSE652

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 6550 Advanced Visual Computing

Course Info

Course Title

Advanced Visual Computing

Course Description

This course is a continuation of CSE 5550. It introduces advanced topics in visual computing. Selected papers in visual computing are studied. Selected areas include volume graphics and volume rendering, computational geometry, medical imaging, visual recognition, image/video classification and retrieval, human tracking, scientific visualization, 3D image reconstruction. A research project is mandatory in this course. Formerly CSE 655. Prerequisites: CSI 5550.

Equivalent Courses

CSE655, CSE718

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 6640 Parallel Computer Architecture

Course Info

Course Title

Parallel Computer Architecture

Course Description

Parallel computer systems: SIMD, MIMD, Shared memory, NUMA, UMA architectures, multiple bus, interconnection network, distributed memories, message passing structures, hierarchical caches, snooping controller design, directory based cache coherency, performance evaluation of parallel systems, instruction level parallelism, practical small multiprocessor system design issues, large scalable multiprocessor systems, grid computer performance, chip multiprocessor system (multiple cores), network processors and the future of parallel architectures. Formerly CSE 664

Equivalent Courses

CSE664

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:

4

CSI 6996 Graduate CSE Project

Course Info

Course Title
Graduate CSE Project

Course Description
Independent work on an advanced computer science and engineering project. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 4 credits. Formerly CSE 690.

Equivalent Courses
CSE690

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

CSI 6998 Master's Thesis Research

Course Info

Course Description
Directed research leading to a master's thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly CSE 691.

Equivalent Courses
CSE691

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

CSI 7900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Advanced study of special topics in computer science and engineering. May be taken more than once. May be taken more than once. May not exceed a maximum of 8 credits. Formerly CSE 795.

Equivalent Courses

CSE795

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	4	8

CSI 7940 Research Seminar in CS

Course Info

Course Title

Research Seminar in Computer Science

Course Description

This course aims at helping doctoral students familiarize themselves with background research in their fields. Students primarily teach this seminar course with the instructor providing feedback on research and presentation skills. Each student submits a final paper summarizing the background knowledge and challenges in their proposed field of study.

Equivalent Courses

CSE792

College/School

School of Egr. and Comp. Sci.

Department

Computer Science & Engineering

Credits

Credit Hours

Units:
2

CSI 7970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Advanced independent study in a special area of computer science and engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly CSE 794.

Equivalent Courses
CSE794

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

CSI 7995 Research Methodology in CS

Course Info

Course Title
Research Methodology in Computer Science

Course Description
The methodology seminar course provides students with the fundamental training for conducting high-level scholarly research used in the various fields of computer science. Topics include: evaluation of information resources, intellectual property, writing for journals and dissertations, working effectively with scientific literature, literature review, plagiarism, publication, bibliographic management, and library resources; students also complete the required Responsible Conduct of Research and Scholarship Training. (RCRS).

Equivalent Courses
CSE791

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:
2

CSI 8999 Doctoral Dissertation Research

Course Info

Course Title
Doctoral Dissertation Research

Course Description
Directed research toward the doctoral dissertation. May be taken more than once for a minimum of 24 credits. Formerly CSE 799.

Equivalent Courses
CSE799

College/School
School of Egr. and Comp. Sci.

Department
Computer Science & Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

DLL 5035 Introduction to DLL

Course Info

Course Title
Introduction to Digital Literacies and Learning

Course Description
This course helps teachers to develop the skills and knowledge necessary to effectively integrate technology into classroom learning experiences as required by the 7th Standard of the Professional Standards for Michigan Teachers. Formerly: DLL 535

Equivalent Courses
DLL535

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
2

DLL 5594 Introduction to DLL

Course Info

Course Title

Introduction to Digital Literacies and Learning

Course Description

Builds the foundation for the Digital Literacies and Learning Program and for effectively incorporating technologies learning experiences. DLL 5594 is equivalent to DLL 594. Must have permission of instructor.

Equivalent Courses

DLL594

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 5595 Dig Lit/Learning Applications

Course Info

Course Title

Digital Literacies and Learning Applications

Course Description

Requires teachers to further develop and document their technology skills, particularly with respect to productivity applications, and to incorporate these skills into appropriate learning activities. Formerly DLL 595. Prerequisite: Permission of instructor.

Equivalent Courses

DLL595

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 5900 Independent Study in DLL

Course Info

Course Title

Independent Study in Digital Literacies and Learning

Course Description

Topics differ depending on student interest. Students pursue a topic independently but with instructor guidance. A written proposal is prepared and must be approved by faculty sponsor. Student must have permission of instructor.

Equivalent Courses

DLL590, IST590

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
2	Max: 8

DLL 6030 Workshop Ed Software/Rel
Techs

Course Info

Course Title

Workshop in Educational Software and Related Technologies

Course Description

This course may be offered with a focus on a variety of topics related to Educational Software and Applications, and related technologies.

Equivalent Courses

DLL6030P, DLL630

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit
RP	1

DLL 6570 Online Teaching and Learning

Course Info

Course Title

Online Teaching and Learning

Course Description

The purpose of this course is to introduce professional educators to theory and practice in online learning and teaching with a special emphasis on practical skills in applying established theory and practice in online contexts. Previously IST 670. Credit cannot be awarded for both IST 670 and DLL 670. Prerequisite: Graduate status or have instructor permission.

Equivalent Courses

DLL670, IST670

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 6579 Tech Supported Learning Design

Course Info

Course Title

Technology Supported Learning Designs

Course Description

The purpose of this course is to introduce professional educators to theory and practice in the design of digital applications which support teaching and learning. Previously IST 679. Credit will not be awarded for both IST 679 and DLL 6579. Prerequisite: DLL 595.

Equivalent Courses

DLL679, IST679

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 6586 Stand Assess Ldrship/Ed Tech

Course Info

Course Title

Standards, Assessment and Leadership in Digital Literacies and Learning

Course Description

Teachers further examine historical, theoretical, research, and assessment issues relevant to educational technology, and develop and refine skills which will enable them to function effectively as leaders in their field. DLL 686 is equivalent to IST 686. Prerequisite: Graduate status.

Equivalent Courses

DLL686, IST686

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 6996 Educational Project in DLL

Course Info

Course Title

Eductional Project in Digital Literacies and Learning

Course Description

Students develop an educational project which incorporates the skills and principles covered in DLL 594, DLL 595, and DLL 679. Students design, carry out and evaluate a comprehensive technology related learning experience. Previously IST 699. Credit cannot be awarded for both IST 699 and DLL 699. Prerequisite: DLL 679 and instructor permission.

Equivalent Courses

DLL699, IST699

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 7570 Video Data Analysis/Ed
Resrch

Course Info

Course Title

Video Data Analysis for Educational Research

Course Description

The purpose of this course is to provide advanced graduate students with background knowledge and technical skills to support the collection, analysis, and interpretation of native video data in the exploration of research questions. Previously IST 770. Credit cannot be awarded for both IST 770 and DLL 770.Prerequisites: Two graduate-level courses in research methodology. Student must be admitted to PhD. program or have permission of instructor.

Equivalent Courses

DLL770

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

DLL 7928 Ind Investigations/Dig Literac

Course Info

Course Title

Independent Investigations in Digital Literacies

Course Description

Students investigate topics under the direction of a faculty member. Student needs determine the topics. Design, methodological, organizational, administrative and theoretical issues in Instructional Systems Technology are encouraged. Equivalent to DLL 780 and IST 780. Student must be admitted to the Ph.D. program or have permission of the instructor.

Equivalent Courses

DLL780, IST780

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

EA 7720 School as Formal Organization

Course Info

Course Title

School as a Formal Organization

Course Description

An introduction to organizational theory and analysis and its application to educational organizations. The required internship and academic portfolio will be initiated.

Equivalent Courses

EA740

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EA 7730 Program Assessment

Course Info

Course Title

Program Assessment

Course Description

Presents the basic theories, techniques and issues in program assessment and planning are presented through lectures and seminars of specific topics related to the field. Students will be expected to participate in individual/group projects.

Equivalent Courses

EA747

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

EA 7740 Curriculum & Staff Development

Course Info

Course Title
Curriculum and Staff Development

Course Description
Examines administrative roles and responsibilities for the development of effective instructional programs. Emphasizes methods of staff development, curriculum theory, and design.

Equivalent Courses
EA746

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EA 7750 Test/Measure/Data Analysis

Course Info

Course Title
Testing, Measurement and Data Analysis Techniques

Course Description
Introduces history of testing in American public schools, the meaning of individual and group test scores, reliability and validity of tests and measures, test construction and preparation, methods of analysis for test data, and issues of accountability.

Equivalent Courses
EA749

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code
NR

EA 7780 Educational Law

Course Info

Course Title

Educational Law

Course Description

Analysis of school law through examination of landmark legal cases and legislative statutes. Emphasis on investigation of rights and responsibilities of students, teachers, administrators and parents; school liability issues; current court and legislative trends.

Equivalent Courses

EA742

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EA 7940 Sem School/Community Develop

Course Info

Course Title

Seminar on School/Community Development

Course Description

Topics will be selected from a range of school/community relations issues. Major stakeholders will be identified and their roles and potential impact on the school analyzed.

Equivalent Courses

EA748

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EA 7950 Internship Experience I

Course Info

Course Title

Internship Experience I

Course Description

With the guidance of their mentor and cohort coordinator, students will develop a plan of work consisting of goals and activities intended to provide opportunities to develop a variety of leadership skills and dispositions.

Equivalent Courses

EA701

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

EA 8820 Hum Resource Mgt & Supervision

Course Info

Course Title

Human Resource Management and Supervision

Course Description

Provides students with the knowledge and skills needed for the implementation of effective and ethical human resources management and personnel supervision.

Equivalent Courses

EA754

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

4

EA 8840 School Business Management

Course Info

Course Title

School Business Management

Course Description

In-depth analysis of financial and business operations of schools, including external and local funding sources, resource allocation issues, school budget, accounting and auditing systems.

Equivalent Courses

EA741

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EA 8850 Action Research for Ed Leaders

Course Info

Course Title

Action Research for Educational Leaders

Course Description

Reviews differences between quantitative and qualitative research and explores action research methodology as a means of understanding and working to solve problems of practice in school settings.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EA 8950 Internship Experience II

Course Info

Course Title

Internship Experience II

Course Description

The intern's plan of work will be implemented as an ongoing activity throughout the Ed.S. program.

Equivalent Courses

EA702

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

EC 6600 Theories Child Devel/Education

Course Info

Course Title

Theories of Child Development and Education

Course Description

Views of education discussed from social, physical and cognitive perspectives. Analyzes diverse contemporary theories of early childhood and broader contemporary issues related to child development.

Equivalent Courses

EC540

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EC 6601 Fam/Chld/Lrng Cultural Context

Course Info

Course Title

Family, Child and Learning in Cultural Context

Course Description

An interdisciplinary examination of selected social issues about children and early education in culturally diverse America: changing family patterns, socioeconomic and language issues, home-school transitions, media influence, child-parent-teacher relations, developing awareness of self and world.

Equivalent Courses

EC509, FE509

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

EC 6602 Applied Development Principles

Course Info

Course Title

Applied Developmental Principles

Course Description

An application of principles of child development in preschool and elementary classroom settings. This course focuses on the development of a project-based integrated curriculum, investigates the idea of developmentally appropriate assessment, and reviews curriculum models. Student must meet the prerequisite (EC 540).

Equivalent Courses

EC542

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6603 Play and Mediation of Learning

Course Info

Course Title

Adult-Child Interaction: Play and Mediation of Learning

Course Description

The course explores play as enculturation and the adult's role in mediating learning through play. The changing role of play in the transition from infancy to representational thinking is investigated. Includes the relationship between play formats and the acquisition of skills, concepts and information. Student must meet the prerequisite (EC 540).

Equivalent Courses

EC544

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EC 6604 Observe/Assess Yng Excep Child

Course Info

Course Title

Observation and Assessment of the Young Child

Course Description

Assessment of young exceptional children, with training in interpreting formal and informal assessments and tests for young children. Critical evaluation and actual use of these tests are included. Emphasizes examining and using appropriate developmental tests and alternative assessment procedures. Student must meet prerequisites (EC 6600 and EC 6602).

Equivalent Courses

EC645

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6605 Teacher as Child Advocate

Course Info

Course Title

Teacher as Child Advocate and Adult Educator

Course Description

Exploration of parental and community forces in meeting needs of young children and of teachers in child advocacy issues. Includes methods for working with parents, para-professionals, volunteers in the classroom, home, diverse community team members and referral resources. Student must meet the prerequisites (EC 540, EC 542 and EC 544).

Equivalent Courses

EC543

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EC 6651 Tchng Science/Young Children

Course Info

Course Title

Teaching Science to Young Children

Course Description

Develops philosophies, rationale and methods for teaching science to young children. Explores knowledge and skills for planning instruction, using instructional models appropriate for young children, integrating the curriculum, using current instructional materials and evaluating outcomes. This is an online course with three required class meetings on campus.

Equivalent Courses

EC551

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6652 Intro to Early Childhood Spec

Course Info

Course Title

Introduction to Early Childhood Special Education

Course Description

This course focuses on early childhood special education (ECSE) as a unique discipline similar to, but distinctly different than early childhood education and special education. Teaming, assessment, family centered practice, and child focused practices within multiple contexts of ECSE will be addressed. Activities will take place that encourage reflective practice.

Equivalent Courses

EC552

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6653 ECSE-Program/Plan/Intervention

Course Info

Course Title

ECSE: Programming Planning and Intervention

Course Description

This course focuses on linking the foundational components to professional practice in the field of Early Childhood Special Education. Practical applications of teaming, assessment, family centered practice and child focused approaches will be addressed, with particular attention to the themes of diversity, inclusion, and technology.

Equivalent Courses

EC553

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6654 Fmly/Preschl Ed Setting

Course Info

Course Title

Family and Preschool as Educational Settings

Course Description

An investigation of the sociology of parent-child relationships and the influence of the relationships upon the preparation of children for preschool programs. Also, some consideration of the ways relations between parents and early childhood educators are affected by professionalism.

Equivalent Courses

EC541

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6655 Admin/Directn EC Programs

Course Info

Course Title

Administration and Direction of Early Childhood Programs

Course Description

Administrative aspects such as budgeting, legislation, rules and employee concerns. Includes procedures for developing programs, writing proposals and identifying funding sources. Examination of agencies -involved in early childhood programs, child-care trends in the community and problems in direction of centers. Student must meet prerequisites (EC 540 and EC 542) or have permission of instructor.

Equivalent Courses

EC545

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6656 Play Dev Hospitalized Child

Course Info

Course Title

Play and Development of the Hospitalized Child

Course Description

The hospitalized child's developmental problems and methods of utilizing play in a pediatric program. Addresses children's developmental needs and the relationship of illness to development; the procedures and routines in hospital care; and the effects of hospitalization. Includes practicum in hospital pediatric setting. Student must meet prerequisites ((EC 542 or PSY 510) and EC 544).

Equivalent Courses

EC644

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6657 Gifted/Talented Young Children

Course Info

Course Title

Gifted and Talented Young Children

Course Description

Compares an overview of average development in young children with the characteristics of young, gifted children. Examines environmental factors which influence gifted children and educational programs which can influence their development. Includes site visits.

Equivalent Courses

EC651

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6900 Special Problems in Ed: EC

Course Info

Course Title

Special Problems in Education - Early Childhood

Course Description

Special problems in early childhood, applied development or parent education. Specific topics will be based on student and/or community needs. May be taken more than once for a total of no more than 8 credits. May be elected for independent study. Seminars and class sessions may be required. Prerequisite (s): EC 6600, EC 6601, EC 6602, EC 6603, EC 6604, EC 6605. Student must have permission of instructor.

Equivalent Courses

EC550

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
2	Max: 8

Repeat Rules

Repeat Status Code	Maximum Hours
RP	8

EC 6960 Practicum in Early Childhood

Course Info

Course Title

Practicum in Early Childhood

Course Description

Special areas of curriculum - mathematics, science, language, music, art and sensory-motor - are emphasized, and methods for development of workshops and learning centers in these areas are stressed. Includes the use of technology into learning centers and in workshop presentation.

Equivalent Courses

EC546

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
2	Max: 8

Repeat Rules

Repeat Status Code

NR

EC 6995 Research Proj: EC Phase 1

Course Info

Course Title

Research Project in Early Childhood Education Phase I

Course Description

This course focuses on the first phase of a research project in early education. It includes identification of a significant problem, review of related literature, determination of an appropriate research methodology, a plan of action to carry out the project including gathering and analyzing the data. Student must meet prerequisites (EC 540, EC 542, EC 544, EC 645, EC 543, EC 509 and EC 550 or equivalent).

Equivalent Courses

EC593, FE593

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 6996 Research Project EC: Phase II

Course Info

Course Title

Research Project in Early Childhood Education: Phase II

Course Description

Culmination of the research project following completion of the action phase. Appropriate ways to analyses and report results are investigated. Reflection on the significance and implications of the results, especially for improving early childhood practice and better understanding its social and educational contexts. Submission of the final research report is accomplished. Student must meet prerequisites (EC 540, EC 542, EC 543, EC 544, EC 546, EC 645, FE 509, and FE 593).

Equivalent Courses

EC650

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 9010 Research Methodology

Course Info

Course Title

Research Methodology

Course Description

Considers various modes of research inquiry appropriate to the fields of education and human services. Examines a range of conceptions and strategies in light of students' emerging research interests. Studies tools of research, research planning and design, research methodologies and communication of results of research. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC732

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EC 9020 Analytical Methods

Course Info

Course Title

Analytical Methods

Course Description

Offers a variety of research methods for analyzing empirical data. Considers the appropriateness of fit between various analytical procedures and diverse sets of data drawn from a range of settings in education and human services. Examines assumptions underlying different research questions, methods of analysis, statistical designs and procedures, and ways of interpreting data. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC733, ED733

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EC 9931 Field-Based Project I

Course Info

Course Title

Field-Based Project I

Course Description

Provides doctoral students with the opportunity to demonstrate leadership in planning, implementing and evaluating curricula and other program improvements in early childhood education. Field experiences are available in a variety of educational settings with culturally diverse constituents. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC851

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

EC 9932 Field-Based Project II

Course Info

Course Title

Field-Based Project II

Course Description

Provides doctoral students with the opportunity to demonstrate leadership in planning, implementing and evaluating a collaborative effort in program improvement or policy change for early childhood education. Field experiences are available in a variety of educational settings with culturally diverse constituents. Student must meet prerequisites (EC 730, EC 731, EC 732, EC 733, and SE 861).

Equivalent Courses

EC852

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

EC 9940 Doctoral Prof Seminar I

Course Info

Course Title

Doctoral Professional Seminar I

Course Description

A forum for advanced level inquiry, discussion and analysis of leadership issues in human services and education from a multi-disciplinary perspective. Examines issues such as human development, knowledge base of education, multiculturalism and diversity as well as implications and applications of technology. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC730

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EC 9941 Doctoral Prof Seminar II

Course Info

Course Title

Doctoral Professional Seminar II

Course Description

Provides a forum for additional advanced level inquiry, discussion and analysis of leadership issues in human services and education from a multi-disciplinary perspective. The seminar will examine issues such as human development, knowledge base of education, multi-culturalism and diversity, as well as the implication and applications of technology to the study of these topics. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

CIL731, CNS731, CNS8110, EC731, ED731, ED9941

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EC 9944 Paradigms Early Curric

Course Info

Course Title

Paradigms of Early Education and Curriculum Design

Course Description

Compares and contrasts selected paradigms of learning, with implications for curriculum design. Examines the construction of early childhood curriculum forms, values and objectives, classes of content, and scope and sequence in selected curriculum areas. Evaluates early childhood curricula in light of developmentally appropriate practice. Student must meet prerequisites (EC 730 or EC 731 or EC 809 or FE 802).

Equivalent Courses

EC844

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EC 9945 Curriculum Investigation

Course Info

Course Title

Curriculum Investigation: Practice and Theory

Course Description

Examines and analyzes curriculum practices in a variety of educational settings. Reviews theories about developmentally appropriate curricula that enhance the young child's constructive process. Emphasizes integrated curricula and cultural diversity. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC862

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EC 9946 Early Dev Lrng Theories

Course Info

Course Title

Development and Early Learning: Theories and Research Studies

Course Description

Examines selected theories and research studies of early development and learning, with implications for early childhood education practices. Investigates the distinction and interplay between physical, logico mathematical and social forms of knowledge. Studies cultural and individual differences that may affect early development and learning. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC809

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EC 9947 Ecology of Early Learning

Course Info

Course Title

Ecology of Early Learning: Health, Care and Education

Course Description

Investigation of the interrelated effects of health, care and education on the development of young children. Review of scientific studies that show a link between early learning and intelligence, on one hand, and key elements of health and care, on the other. Students must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC802, FE802

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EC 9948 Policy Studies Early Education

Course Info

Course Title

Policy Studies in Early Education: Culture, Economics and Politics

Course Description

Study of social and educational policy issues and policy making actions taken on behalf of the education, health and well-being of children. Policies are studied through case material from legislation, administrative agencies and regulations, budget processes and court decisions. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

EC873, FE873

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EC 9971 Ind Study: Early Childhood Ed

Course Info

Course Title

Independent Study in Early Childhood Education

Course Description

Students conduct an in-depth study on a topic in early childhood education with supervision by a faculty member.

Equivalent Courses

EC750

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
9

Maximum Hours
99

EC 9998 Comp Exm/Dissertation Propsl

Course Info

Course Title

Comprehensive Qualifying Exam Preparation and Dissertation Proposal

Course Description

Each student develops a dissertation focus and writes and in-depth scholarly review of the relevant literature. After completion of comprehensive, qualifying exams, including written and oral presentations of the scholarly review and responses to exam questions from faculty, the student develops a dissertation proposal. Students in the seminar learn advanced research approaches and participate in collaborative critiques of dissertation proposals, methods and analysis.

Equivalent Courses

EC997

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

EC 9999 Diss Implement Analys/Writing

Course Info

Course Title

Dissertation Implementation, Analysis and Writing

Course Description

In the second phase of dissertation development, with approval of the dissertation proposal from a student's faculty dissertation committee, the student implements the details set forth in the proposal. Students in the seminar learn various approaches to data collection, compilation, analysis and writing. Students participate in collaborative critiques of problems and outcomes of the dissertations, including writing in accordance with university guidelines and preparation for the final dissertation oral. Student must meet prerequisite (EC 997).

Equivalent Courses

EC998

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

ECE 5000 Foundations/Elect & Comp Eng

Course Info

Course Title

Foundations of Electrical and Computer Engineering

Course Description

A study of the foundations of electrical and computer engineering. The use of vectors, matrices, Fourier transforms, and probability in electrical and computer engineering. Computer-aided tools such as Matlab and C are used to solve problems in communications, digital logic, electronic circuit design, and applied electromagnetics. Formerly ECE 515.

Equivalent Courses

ECE515

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5130 Microelectronic Matls and Devi

Course Info

Course Title

Microelectronic Materials and Devices

Course Description

Semiconductor crystal structures, Schrodinger Equation and energy bands of charges in semiconductors. Charge concentration and conduction mechanism. Bipolar junction devices. Metal and semiconductor contacts, MOS devices. Photonic devices. Integrated circuit blocks, fabrication technology basics. Device modeling and simulation techniques. Cross-listed with ECE 4130. Credit cannot be received for both ECE 4130 and ECE 5130.

Equivalent Courses

ECE581, EE581

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5132 VLSIC Design of Digital Chips

Course Info

Course Title

VLSIC Design of Digital Chips

Course Description

CMOS Very Large Scale Integrated Circuits design methodology for rapid implementation and evaluation. From digital systems level to circuit, device, and processing layout. Combinational and sequential circuit characterization and performance estimation. Inverters, logic, and transmission gates switching characteristics. Reliability and yield Application Specific ICs design projects using professional CAD tool-suites. Previously EE 585, ECE 585. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of EE 485, EE 585, ECE 485, ECE 4132, ECE 585, ECE 5132. With laboratory. Prerequisite: ECE 5130 or permission of instructor.

Equivalent Courses

ECE585, EE585

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ECE 5134 Fundamentals of MEMS

Course Info

Course Title

Fundamentals of MEMS

Course Description

Micro-electro-mechanical Systems (MEMS) specifications, MEMS materials, materials mechanics, MEMS fabrication technologies, lumped-element method and MEMS device modeling and dynamics, energy transductions for sensing and actuations, case study on sensors and actuators. Finite element analysis (FEA) for MEMS structural design, with projects. Cross-listed with ECE 4134. Credit cannot be received for both ECE 5134 and ECE 4134.

Equivalent Courses

ECE4134, ECE583

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5135 Microelec Fabrication Tech

Course Info

Course Title

Microelectronic Fabrication Technologies

Course Description

Modern microelectronics processes and fabrication of integrated circuits. Crystal growth and wafer preparation, photolithography, dielectric and polysilicon film deposition, epitaxial growth, oxidation, diffusion, ion implantation, etching, metallization and integrated circuits layout principles. Introduction to MOS-based and bipolar junction transistor-based microcircuits design and fabrication. Projects included.

Equivalent Courses

ECE587

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5137 High-Frequency Electronics

Course Info

Course Title

High-Frequency Electronics

Course Description

Transmission lines with sinusoidal and pulse excitation. Passive and active circuit components at high frequency. High frequency amplifiers, communication circuits, waveform generators and digital circuits. Introduction to high frequency measurements. Formerly EE 726, EE 626, EE 527 and ECE 527. Credit cannot be received for more than one of EE 526, EE 527, EE 726, ECE 527, ECE 5137.

Equivalent Courses

ECE527, EE527

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5140 Instrumentation & Measurements

Course Info

Course Title

Instrumentation and Measurements

Course Description

Errors in measurements, error corrections and minimization; transducers and their applications; signal conditioning and interfacing; electromagnetic compatibility and interference problems in instrumentation; measurement instrument and their characteristics. Measurement systems, signal analyzers and data acquisition systems; signal conversion; computer and microprocessor-based instrumentation. With project. Formerly EE 525, ECE 525. Credit can be awarded for only one of EE 525, ECE 525, and ECE 5140.

Equivalent Courses

ECE525, EE525

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5206 Random Signals & Processes

Course Info

Course Title

Random Signals and Processes

Course Description

Provides the foundation needed to work with the random signals which are encountered in engineering. Concept of a stochastic process. Characterization of random waveforms using power spectral density and the correlation function. Random signals in linear systems. Applications to engineering systems. Formerly EE 533, ECE 533. Credit can be received for only one of EE 533, ECE 533 and ECE 5206.

Equivalent Courses

ECE533, EE533

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5210 Principles of Digital Comm

Course Info

Course Title

Principles of Digital Communications

Course Description

Source coding, signal design, modulation and demodulation. The optimal receiver principle, synchronization, communications over narrow band channels, fading channels and error correction codes. Formerly EE 534, ECE 534. Credit can be received for only one of EE 534, ECE 534 and ECE 5210. Prerequisite(s): (ECE 5206 and completion of a prior course in communication systems) or instructor permission.

Equivalent Courses

ECE534, EE534

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5220 Digital Signal Processing

Course Info

Course Title

Digital Signal Processing

Course Description

Analysis of discrete signals and systems. Introduction to digital filters including finite and infinite impulse response filter. Discrete and Fast Fourier Transformations. Application of digital signal processing. Formerly EE 537, EE 637, ECE 537. Credit cannot be received for more than one of EE 537, EE 637, ECE 537, ECE 5220. Prerequisite: Student must have a basic knowledge of linear systems at undergraduate level or permission of instructor.

Equivalent Courses

ECE537, EE537

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5230 Satellite-Based Position Sys

Course Info

Course Title

Satellite-Based Positioning Systems

Course Description

Introduction to the fundamentals of satellite-based positioning systems with an emphasis on the Global Positioning System (GPS). Understanding of the GPS satellite constellation, coordinate systems, timing standards and GPS signal structure. Determination of position from the range measurements for different modes of positioning. Introduction to various ranging error sources and mitigation techniques. Impact of ranging errors and satellite geometry on 3-dimensional position error. Formerly EE 550, ECE 550. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of EE 450, EE 550, ECE 450, ECE 550, ECE 4230, ECE 5230.

Equivalent Courses

ECE550, EE550

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5300 Electromagnetic Engineering

Course Info

Course Title

Electromagnetic Engineering

Course Description

Electromagnetic theory with applications. Diffraction, radiation, propagation, guided waves, optical transmission and resonant cavities. Formerly EE 545 and ECE 545. Credit cannot be received for more than one of EE 545, ECE 545, ECE 5300. Prerequisites: Student must have a background in vector calculus and basic electromagnetic theory, and have at least one course from the core and theory group of courses.

Equivalent Courses

ECE545, EE545

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5310 Antennas

Course Info

Course Title

Antennas

Course Description

Introduction to antenna performance parameters including field patterns, power patterns, beam area, directivity, gain, beam efficiency, radiation intensity, antenna apertures, impedance, polarization, and the radio communication link. Dyadic Green's Function, Radiation from current elements such as a dipole and a current loop, far-zone fields, arrays of point sources. Antenna modeling and measurement techniques will be introduced. Course will incorporate labs and/or laboratory demonstrations. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of ECE 447, ECE 4310, ECE 547, ECE 5310. Formerly ECE 547.

Equivalent Courses

ECE547

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5320 Electromagnetic Compatibility

Course Info

Course Title

Electromagnetic Compatibility

Course Description

Review of EM basics related to ENMC applications. Analysis of EMI sources and receivers. Signal spectra, conducted and radiated emissions. Transmission line cross-talk. Introduction to shielding, filtering, and grounding. Electrostatic discharges (ESD). Circuit and system immunity. Signal spectra, conducted and radiated emissions. EMC requirements for component and system levels. US and European standards and their origin. Automotive EMC standards. EMC issues in vehicle multiplexing communication. With laboratory. Formerly EE 546, ECE 546. Credit cannot be received for more than one of EE 546, ECE 546, ECE 5320. Prerequisites: Undergraduate courses in electronic circuit design, electromagnetics, and communication systems

Equivalent Courses

ECE546

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5404 Linear Systems and Control

Course Info

Course Title

Linear Systems and Control

Course Description

Overview of signals. State space modeling and analysis of both continuous-time and discrete-time systems. Fundamental theories of stability, controllability and observability of state space models. Design of state feedback control systems and state observer-based feedback control systems for continuous/discrete-time systems. Parameter estimation of models. Computer simulation studies including real-world applications.

Equivalent Courses

ECE520, SYS520, SYS5404

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5415 Microcomp-Based Control Sys

Course Info

Course Title

Microcomputer-based Control Systems

Course Description

Computer-aided engineering, analysis, design, evaluation of control systems. Microcomputer/microprocessor-based hardware and software development of digital controllers, estimators, filters. Data acquisition, signal conditioning and processing circuits, graphics displays. On-line system level and board-level microcomputer-based control experiments. Laboratory and projects emphasize real time applications, programming and hardware integration. With laboratory. This course is cross listed with ECE 4415. Credit cannot be received for more than one of ECE 4415, ECE 5415. Prerequisites: Students are required to have a background in either microprocessors or control systems. Students lacking background in microprocessors or control systems are encouraged to take ECE 5731 – Fundamentals of Embedded Systems or ECE 5404 – Linear Systems and Control prior to taking this course.

Equivalent Courses

ECE572, EE572

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5500 Robotic Systems and Control

Course Info

Course Title

Robotic Systems and Control

Course Description

Introduction to robotic systems and applications. Robotic forward and inverse kinematics. Task and path planning with motion controls. Jacobian matrix, differential motion and robotic statics. Redundant robots, mobile robots and multi-robot coordination. Robotic dynamics, position control and force control. Computer simulation and laboratory demonstration. Formerly ECE 523. This course is cross listed with an undergraduate course. Credit can be awarded for only one of ECE 423, ECE 4500, ECE 523, ECE 5500.

Equivalent Courses

ECE523

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ECE 5510 Machine Vision

Course Info

Course Title

Machine Vision

Course Description

Introduction to machine vision and hands-on experience to solve real-life vision problems. Topics include image formation (impacts of lighting and optics), image processing, feature detection, and matching feature-based alignment. Introduction to neural networks and machine learning, and their use in image processing. Industrial applications for machine vision, gauging, inspection; guidance, and identification. Programming with MATLAB, Python, and OpenCV along with laboratory-based projects. This course is cross-listed with an undergraduate course. Credit can be awarded for only one of ECE 4510 or ECE 5510.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 5520 Automotive Mechatronics I

Course Info

Course Title

Automotive Mechatronics I

Course Description

Overview of mechatronics; modeling, identification and simulation of electro-mechanical devices; introduction to computer-aided software; basic automotive sensors; basic actuators and power train devices; principles of automotive and industrial electronic circuits and control systems (analog and digital); principles of product design; mechatronics case studies. Formerly EE 575, ECE 575. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of EE 475, EE 575, ECE 475, ECE 4520, ECE 575, ECE 5520, SYS 475, SYS 575, SYS 5520.

Equivalent Courses

ECE575, EE575, SYS5520, SYS575

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5532 Autonomous Vehicle Systems I

Course Info

Course Title

Autonomous Vehicle Systems I

Course Description

Overview of mobile robotics concepts. Fundamental theoretical concepts; kinematics modeling, rotation matrices, quaternions, Kalman filters. Basic sensors, wheel encoders, inertial measurement units (IMU), GPS, LIDAR, and cameras. Planning and control algorithms; deliberate and reactionary path planning, environment mapping, path optimization, leader-follower, GPS navigation. Simulation using Robot Operating System (ROS) and C++. Cross-listed with ECE 4532. Students can't receive credit for both courses.

Equivalent Courses

ECE4532

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 5551 Human Robot Interaction

Course Info

Course Title

Human Robot Interaction

Course Description

HRI covers design and evaluation of robots interacting with humans. The topics include sensing, autonomy, AI, interaction design, experimental design, and human factors applied to robotics. Students will create effective HRI for all levels of autonomy. HRI applications covered include industrial, service, defense, space, therapy, education, and entertainment, etc. This course is cross-listed with ECE 4551.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5600 Design of AC Machines

Course Info

Course Title

Design of AC Machines

Course Description

This course covers the most important concepts of the design of AC electric machines. Step-by-step procedures to electromagnetically design AC electric machines e.g., induction machines and Permanent Magnet (PM) machines, is covered in this course by examining magnetic circuits, field distributions in electric machines and losses in electric machines. Cross-listed with ECE 4600. Students can only receive credit for either ECE 4600 or ECE 5600. Prerequisite(s): ECE 3600 or ECE 5605 or prior experience Electrical Machines at the undergraduate level.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5605 Intro to Electrical Power Sys

Course Info

Course Title

Introduction to Electrical Power Systems

Course Description

This course introduces students to the fundamentals of electrical energy systems, including: Modeling and analysis of electric circuits; Transient and forced responses in RC, RL circuits; AC power, three-phase circuits, wye-delta transforms; Single- and Three-phase transformers, synchronous and induction machines; Per unit system and introduction to power generation, transmission and distribution; Per unit normalization, symmetrical faults. Computer-aided problem solving included.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5610 Energy Conservation Systems

Course Info

Course Title

Energy Conservation Systems

Course Description

Techniques for improving energy use in industrial and commercial applications. Topics include: energy accounting; energy auditing; energy conservation management; net energy analysis; second law methods of analysis; combined use energy systems; new technology for energy conservation; assessment of alternative technology. Formerly ECE 557. Credit cannot be received for more than one of ECE 557, ECE 5610, SYS 557, SYS 5610, ISE 557, ISE 5610. Prerequisite: At least one course from the core and theory group of courses or student must have permission of instructor.

Equivalent Courses

ECE557, ISE557, ISE5610, SYS557, SYS5610

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5620 Electrical Energy Systems

Course Info

Course Title

Electrical Energy Systems

Course Description

Generation, transmission and distribution of electrical energy.

Analysis and design of three-phase circuits, per unit normalization, system design evaluation and load-flow, symmetrical components and stability. This course is cross listed with an undergraduate course. Credit cannot be received for both SYS 558 (SYS 5620) and ECE 458.

Equivalent Courses

SYS5620

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 5625 Microgrid Design and Operation

Course Info

Course Title

Microgrid Design and Operation

Course Description

Microgrids are entities that are composed of at least one distributed energy resource and associated loads, which not only operate safely and efficiently within the local power distribution network but also can form intentional islands in electrical distribution systems. This course covers the fundamentals of designing and operating microgrids. Specifically includes modeling of generation resources and loads for design and operation of microgrids; their optimal operation and control strategies; and investigates interconnection, reliability and protection in microgrids. Students need basic knowledge of energy systems.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5630 Electric/Hybrid Drive Systems

Course Info

Course Title

Electric and Hybrid Drive Systems

Course Description

Introduction to electric drives and their applications including mobile robots, electric vehicles, plug-in EV and hybrid EV. Brush and brushless DC, AC synchronous and induction, stepper motors, Load torque-speed-current profile, losses. Power processing units, dc-dc converters, H-bridges, 3-phase inverters. Clarke and Park transform, field oriented control, pulse width modulation and space vector modulation. Torque, speed and position control synthesis and analysis. Battery types, state-of-charge models, heat issues. Regenerative braking, alternative energy. Computer simulation and visualization of principles. Formerly ECE 577. This course is cross listed with an undergraduate course. Credit cannot be received for both ECE 577 and ECE 459. Prerequisite: ECE 429 or equivalent.

Equivalent Courses

ECE577

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5640 Battery Management Systems

Course Info

Course Title

Battery Management Systems

Course Description

Sensing and measurement of cell/module voltages, currents, and temperatures. Battery protection systems and their control. Equivalent circuit model. Estimation of cell/module state of charge, state of health, and state of life. Cell balancing control. Computation of power limits and real-time power control. Cross-listed with ECE 4640. Students may not receive credit for both courses. Prerequisite: ECE 5140 or prior experience in electronic circuit analysis

Equivalent Courses

ECE4640

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5710 Computer Hardware Design

Course Info

Course Title

Computer Hardware Design

Course Description

Development of components and techniques needed to design digital circuits and systems for controllers, computers, communication, and related applications. Unsigned/signed integer and real arithmetic operations. Design and timing simulation of special-purpose processors in VHDL and their FPGA implementation. Microprocessor design. With laboratory. Cross-listed with ECE 4710. Credit can only be received for either ECE 4710 or ECE 5710.

Equivalent Courses

ECE508

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ECE 5720 Microproc-Based Sys Design

Course Info

Course Title

Microprocessor-based Systems Design

Course Description

Application of microprocessors and microcomputers to the solution of typical problems; interfacing microprocessors with external systems such as sensors, displays and keyboards; programming considerations, microcomputer system design. A laboratory design course, several short design projects and one large design project. This course integrates concepts learned in required courses and provides a design experience. The large design project includes cost/trade-off analysis, submitting a detailed written report and oral presentation of the project. Formerly EE 570, ECE 570. This course is cross listed with an undergraduate course (CSE 4720). Credit cannot be received for more than one of EE 570, ECE 470, ECE 4720, ECE 570, ECE 5720, CSE 470, CSE 4720, CSE 570. Recommended prerequisite: (CSE 3710 or ECE 3710) or CSE 5008 or equivalent.

Equivalent Courses

CSE570, ECE570, EE570

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code
NR

Repeat Limit
1

ECE 5721 Embedded Systems Design

Course Info

Course Title

Embedded Systems Design

Course Description

Real-time embedded system design. Topics include ARM architecture, I/O interfacing (including CAN bus and Bluetooth), real-time programming, multi-threading/multi-tasking for real-time applications, task scheduling, and design of applications with real-time operating systems for embedded controllers. Practical experience with embedded software development tools for C programming. With laboratory and final design project. *Course is cross-listed with an undergraduate course. Credit can only be received for one of ECE 4721 or ECE 5721.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5731 Fund of Embedded Sys Design

Course Info

Course Title

Fundamentals of Embedded System Design

Course Description

Introduction to embedded systems. Topics include microcontroller architecture, operating systems and kernels, instructions, firmware, and common embedded applications using analog inputs/outputs, sensor/actuator interfaces, digital signal processing/filtering, communication standards, PID feedback control, and brushless/ stepper motor sizing and control. Includes final project involving system specification, trade-off analysis, component design, and performance evaluation. The course is cross-listed with ECE 4731.

Equivalent Courses

ECE4731

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5732 Mixed Signal Embedded System

Course Info

Course Title

Mixed Signal Embedded System

Course Description

This course will discuss the design and analysis of embedded mixed-signal systems. Topics include study and comparison of mixed-signal microcontroller architectures, programmable digital peripherals, programmable analog peripherals, sensor and actuator interfaces, optical and analog isolation, communication standards, and development tools. A final project will be approached in top-down fashion involving, system specification, functional partition, trade-off analysis, component design, integration, and performance evaluation. Formerly ECE 571.

Equivalent Courses

ECE571

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5734 Embed Sys Verif & Validation

Course Info

Course Title

Embedded System Verification and Validation

Course Description

Topics covered include automotive embedded system requirements, verification during design, sneak circuit analysis, worst-case circuit analysis, design considering component tolerances and non-ideal behavior, thermal analysis, EMC analysis, FMEA analysis, grounding rules for circuits, six sigma, fault tolerance, risk analysis, reliability issues, trade-offs in design, delays in automotive networks, and software-in-the-loop and hardware-in-the-loop tests. Formerly ECE 573.

Equivalent Courses

ECE573

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5736 Reconfigurable Computing

Course Info

Course Title

Reconfigurable Computing

Course Description

Students learn to design custom hardware architectures that can be reconfigured on-the-fly inside a custom embedded system. The course brings together many topics students learn throughout the undergraduate Computer Engineering curriculum (digital logic design, microprocessor design, and embedded software). Prerequisite (s): ECE 5710 and Background on digital logic and microprocessors. This course is cross-listed with ECE 4736. Credit cannot be received for both ECE 4736 and ECE 5736.

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ECE 5738 Micro- & Nano-Embedded Systems

Course Info

Course Title

Micro- and Nano-Embedded Systems

Course Description

This course will focus on introducing micro-scale embedded systems. This includes digital analog, mixed-mode, and micro-electromechanical systems (MEMS). An introduction to basic fabrication techniques for analog and micro-electromechanical systems will be given. The course will focus on applications that have been developed and are currently under development using mixed-mode embedded systems and MEMS, particularly for automotive, consumer products, sensors, and biomedical applications. An introduction to technology of nano-scale will be given. Formerly ECE 566.

Equivalent Courses

CSE566, ECE566

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5740 Embedded AI

Course Info

Course Title

Embedded Artificial Intelligence

Course Description

Foundations of AI algorithms and implementation of AI in embedded systems (microcontroller or custom hardware). Topics include neural networks, fuzzy logic, decision trees, clustering, reinforcement, and self-organizing methods in applications for low-cost mobile systems with limited processing power and battery life. The theory, common implementations, and techniques for simplifying calculations and modifying algorithms for implementations in embedded systems will be presented. Students will participate in hands-on exercises in implementing these on targets of microcontrollers or by designing digital circuits for FPGAs. Cross-listed with ECE 4740.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5750 Computer Networks

Course Info

Course Title

Computer Networks

Course Description

Resource-sharing principles; communications and networks; packet switching; the ARPANET; network performance using principles of queueing theory; network design principles, capacity assignment; flow assignment; topological design. Other related topics. Formerly EE 567, ECE 567. Credit can be received for only one of EE 567, ECE 567, ECE 5750. Prerequisite: At least one course from the core and theory group of courses, or student must have permission of instructor.

Equivalent Courses

ECE567

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5760 Embedded Sys Design w/ FPGAs

Course Info

Course Title

Embedded System Design with FPGAs

Course Description

Topics covered include the use of hardware description languages such as VHDL/Verilog and C in the design of embedded systems containing an FPGA, CPU design, device drivers for FPGA cores, high-level design tools to specify, simulate and synthesize designs to FPGAs, and design examples. Hardware and software design; project-oriented course. Prerequisites: ECE 5710. Cross-listed with CSI 5760. Credit can only be received for one of ECE 5760 or CSI 5760.

Equivalent Courses

CSE576, CSI5760, ECE5730, ECE576

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5761 Safety Critical Embedded Sys

Course Info

Course Title

Fundamentals of Safety-Critical Embedded Systems

Course Description

Students gain an understanding of various embedded systems features and software constructs that provide fault-tolerance to meet a product's regulatory compliances, use cases and unexpected behaviors. The course will guide students through the major theories and the students will apply the knowledge through real-world examples, and publications. This course provides exposure to problem framing, automotive safety regulations (ISO26262), quantitative reliability metrics (FIT), intelligent partitioning, APIs (AUTOSAR), static and dynamic fault recovery, and professional documentation and communication skills.ECE 5761 and ECE 4761 are cross-listed. Credit cannot be received for both ECE 5761 and ECE 4761

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5770 GPU Accelerated Computing

Course Info

Course Title

GPU Accelerated Computing

Course Description

This course will focus on learning how to program heterogeneous parallel computing systems and high performance applications. Technical subjects include: GPU architecture, parallel programming API's for GPUs (CUDA, OpenCL, OpenACC), tools and techniques, principles and patterns of parallel algorithms.

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5772 High Performance Embed Prog

Course Info

Course Title

High Performance Embedded Programming

Course Description

Real-time embedded system programming, analysis, and optimization using advanced processors such as the Intel Atom. Topics covered include real-time programming, multi-threaded systems, multi-core software development, as well as optimization of processor utilization, speed, and memory requirements. This course is cross-listed with ECE 4772.

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 5780 Embedded Security

Course Info

Course Title

Embedded Security

Course Description

This course focuses on vulnerabilities in digital system design, physical attack detection and prevention, and wireless security for IOT and automotive applications. FPGA based secure systems, cryptographic hardware/chips, Trust Zone, Root Trust, hardware security module, edge lock, crypto service manager, physically unclonable function and secure-core based design are covered. This course is cross-listed with ECE 4780.

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5810 Quantum Computer Design

Course Info

Course Title

Quantum Computer Design

Course Description

This course will introduce undergraduate engineering and physics students to the engineering aspects of quantum systems. Students will be introduced to qubits, entanglement, quantum gates, quantum circuits, quantum algorithms, and quantum communications. Students will then learn about the design, fabrication, and characterization of quantum devices, as well as the challenges facing the development of practical quantum systems. Cross-listed with ECE 4810. Students cannot earn credit for both ECE 4810 and ECE 5810.

Equivalent Courses

ECE4810

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 5900 Special Topics

Course Info

Course Title

Special Topics: Human-Robot Interaction

Course Description

The study of special topics in electrical and computer engineering. May be taken more than once. May not exceed a maximum of 8 credits.

Equivalent Courses

ECE595

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ECE 5970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Independent study in a special area of electrical and computer engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 4 credits. Formerly ECE 594. Prerequisite: At least one course from the core and theory group of courses.

Equivalent Courses

ECE594

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ECE 6132 Adv VSLIC Analog/Digit Sys Des

Course Info

Course Title

Advanced VSLIC Analog/Digital Systems Design

Course Description

Full-custom design and analysis techniques of ASICs. Metal-Oxide-Semiconductor (MOS) devices, circuits and future trends. MOS processing and design rules. Extensive circuit simulation. Analog VSLIC basic functions. Graphical model representation. Amplifiers. Current mirrors. Computer Aided Design (CAD) of analog integrated circuits. Layout and design for testability considerations. Implementing integrated system design from circuit topology to patterning geometry to wafer fabrication. The course is project oriented. Students start with concepts and finish with testing and evaluating ASIC prototypes. Previously EE 683 and ECE 683. Credit cannot be received for more than one of EE 683, ECE 683, ECE 6132. Prerequisites: At least one course from the core and theory group of courses and permission of instructor.

Equivalent Courses

ECE683

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6136 Appl of Analog Integ Circuits

Course Info

Course Title

Applications of Analog Integrated Circuits

Course Description

Building blocks of analog integrated circuits and their limitations; characteristics, analysis and applications of analog integrated circuits; principles of circuit and system design with analog integrated circuits. Previously EE 625, ECE 625. Credit cannot be received for more than one of EE 625, ECE 625, ECE 6136. Prerequisites: At least one course from the core and theory group of courses and permission of instructor.

Equivalent Courses

ECE625, EE625

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6138 Field-Effect Devices

Course Info

Course Title

Field-Effect Devices

Course Description

Electronic structure of semiconductor surfaces. Concepts of surface states and surface charge. Metal-Semiconductor (MS) contacts: ohmic and rectifying. Conductivity modulation and the theory of JFET and MESFET transistors. Integrated device technology, including Silicon on Sapphire (SOS) and Silicon on Insulator (SOI) structures and their application. Previously EE 682 and ECE 682. Credit cannot be received for more than one of EE 682, ECE 682 or ECE 6138. Prerequisites: ECE 5130 and at least one course from the core and theory group of courses.

Equivalent Courses

ECE682

College/School

School of Egr. and Comp. Sci.

Department

Electrical & Computer Engineering

Credits

Credit Hours

Units:

4

ECE 6200 Multi-dimensional Signal Theor

Course Info

Course Title

Multi-dimensional Signal Theory

Course Description

Random vector analysis. Generalized harmonic analysis. Correlation and spectrum analysis of stochastic fields. Multidimensional linear systems. Transformations of random fields in multidimensional systems. Elements of generalized functions and Hilbert spaces. Applications to signal field processing, image processing and antenna and sensor array design. Formerly EE 620, ECE 620. Credit cannot be received for more than one of EE 620, ECE 620, ECE 6200. Prerequisites: SYS 5404 and at least one course from the core and theory group of courses.

Equivalent Courses

ECE620, EE620

College/School

School of Egr. and Comp. Sci.

Department

Electrical & Computer Engineering

Credits

Credit Hours

Units:

4

ECE 6201 Signal Detection & Est Theory

Course Info

Course Title

Signal Detection and Estimation Theory

Course Description

Noise analysis concept review, binary decision theory, multiple decision, sequential decision theory, nonparametric decision theory, fundamentals of estimation, sequential estimation theory, detection of coded information and error control. Previously EE 633, ECE 633. Credit cannot be received for more than one of EE 633, ECE 633, ECE 6201. Prerequisites: ECE 5206 and at least one course from the core and theory group of courses or have permission of the instructor.

Equivalent Courses

ECE633, EE633

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6202 Statistical Commun Sys Theory

Course Info

Course Title

Statistical Communication System Theory

Course Description

Harmonic analysis, sampling theory, stochastic process and correlation functions, linear systems response to random inputs, optimum linear systems (matched filters, Wiener filters) coherent and noncoherent filtering, nonlinear systems with random input (zero memory, square law, nth law devices), modulation theory, interference considerations. Previously EE 634, ECE 634. Credit cannot be received for more than one of EE 634, ECE 634 or ECE 6202. Prerequisites: (EE 533 or ECE 5206) or (SYS 5517 or ISE 5517).

Equivalent Courses

ECE634, EE634

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6212 Wireless Communications

Course Info

Course Title

Wireless Communications

Course Description

Introduction to wireless communication principles and systems. Wireless channel models, TDMA, FDMA, spread spectrum, CDMA, equalization, detection, estimation, coding, security, quality assessment of service and personal communications. The 2nd generation and 3rd generation wireless standards are also discussed. Formerly EE 632, ECE 632. Credit cannot be received for more than one of EE 632, ECE 632, ECE 6212. Prerequisites: ECE 5210 and at least one course from the core and theory group of courses or have permission of instructor.

Equivalent Courses

ECE632, EE632

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6214 Modulation and Coding

Course Info

Course Title

Modulation and Coding

Course Description

Phase shift keying (PSK), quadrature amplitude modulation (QAM), continuous phase modulation (CPM), constant envelope modulation, power spectral density, bandwidth efficiency, block codes, convolutional codes and turbo codes. Previously EE 635, ECE 635. Credit cannot be received for more than one of EE 635, ECE 635, ECE 6214. Prerequisites: ECE 5210.

Equivalent Courses

ECE635, EE635

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6240 Digital Image Processing

Course Info

Course Title

Digital Image Processing

Course Description

Fundamentals of digital image processing; review of one-dimensional signal processing techniques; introduction to two-dimensional signals and systems; two-dimensional digital filtering; image enhancement techniques; statistical model based methods and algebraic techniques for image restoration; image data compression; image analysis and computer vision. Selected applications.

Previously EE 638 and ECE 638. Credit cannot be received for more than one of EE 638, ECE 638 or ECE 6240. Prerequisites: Student must have knowledge of linear systems, and probability and statistics. Also, at least one course from the core and theory group of courses.

Equivalent Courses

ECE638, EE638

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6242 Advcd Digital Signal Process

Course Info

Course Title

Advanced Digital Signal Processing

Course Description

An overview of random signals and systems; signal modeling techniques, signal enhancement techniques and their applications; adaptive filtering and its applications; introduction to wavelet transforms and its applications. Previously EE 639. Credit cannot be received for both ECE 639 and EE 639. Student must meet prerequisite (ECE 537 or equivalent).

Equivalent Courses

ECE639

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6400 Estimation and Control Theory

Course Info

Course Title

Estimation and Control Theory

Course Description

Stochastic differential and difference equations; Luenberger observer theory; Kalman-Bucy filtering theory; design of stochastic optimal and microprocessor-based control systems; duality between optimal estimation and control problems; the separation principle; simulation and laboratory implementation of observers and filters in stochastic control system.

Equivalent Courses

SYS6400

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 6410 Intelligent Control Systems

Course Info

Course Title

Intelligent Control Systems

Course Description

Definition and paradigm for intelligent control; self-learning and supervised learning; hierarchical decision architecture; fuzzy logic, neural network, heuristics, genetic algorithm, optimum strategy and related topics; examples of intelligent and autonomous systems; computer simulation and visualization of applications. Previously SYS 735. Credit cannot be received for more than one of ECE 645, SYS 645 and SYS 735. Student must meet prerequisite (at least one course from the core and theory group of courses) and have permission of instructor.

Equivalent Courses

ECE645, SYS6410

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6412 Digital Control Systems

Course Info

Course Title

Digital Control Systems

Course Description

Theoretical foundation needed to implement the microprocessor in control applications. Effects of sampling, data conversion, quantization, finite word length and time delays on system response and stability are examined. Pole-placement and observer/estimator techniques. Actual construction of a microcomputer-based controller culminates the course. Prerequisite (s):SYS 5404 or ECE 5404.

Equivalent Courses

SYS6412

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 6430 Analysis Nonlinear Control Sys

Course Info

Course Title

Analysis of Nonlinear Control Systems

Course Description

Nonlinear systems modeling and analysis with various engineering applications. Special phenomena and nonlinear dynamics. Theory of nonlinear systems stability and stabilization. Controllability, observability, invertibility and linearizability of nonlinear control systems. Nonlinear feedback control, internal dynamics and nonlinear adaptive control. Advanced computer simulation studies. Credit cannot be received for more than one of SYS 632, SYS 6430 and SYS 532. Prerequisite (s):SYS 5404 and ECE 5404.

Equivalent Courses

SYS6430

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 6440 Adaptive Control Systems

Course Info

Course Title

Adaptive Control Systems

Course Description

Classifications of self-tuning and adaptive systems; parameter estimation techniques, self-tuning regulators and state estimators, stability and convergence analysis; model reference adaptive systems using Lyapunov and hyperstability models; applications of adaptive control systems; computer simulation and laboratory experiments. Prerequisite (s): ECE 5404

Equivalent Courses

SYS6440

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 6450 Model Predictive Control

Course Info

Course Title

Model Predictive Control

Course Description

Model predictive control theory applied to linear and nonlinear dynamical systems. Differential and difference equations; stability of optimal control systems; dynamic programming; linear quadratic regulator; model predictive control; quadratic programming; nonlinear model predictive control and sequential quadratic programming; application of theory to practical control system design methodology; project involving the design of a model predictive control system.

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6452 Optimal Control

Course Info

Course Title

Optimal Control

Course Description

Modern control theory applied to linear and nonlinear dynamical systems, differential and difference equations; stability of optimal control systems; dynamic programming; calculus of variation and Pontryagin's minimum principle; Hamilton–Jacobi–Bellman equation; optimally switched control systems, linear regulator problem; Lyapunov stability; linear and nonlinear model predictive control; state estimation of nonlinear systems; application of theory to practical control system design methodology; project involving the design of an optimal control system.

Equivalent Courses

SYS6452

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6460 Autonomous Vehicle Systems II

Course Info

Course Title

Autonomous Vehicle Systems II

Course Description

Present applications and future roles of autonomous manned and unmanned vehicle systems. The course introduces theoretical and practical backgrounds for components and integration of autonomous vehicle systems. Topics include mobility dynamics and control, sensors and perception, cognition and decision, action and commands, computer communications and integration. Case studies include lane following, obstacle avoidance, leader following, waypoint navigation and guidance. Homeworks, computer simulations and experiments. Student must meet prerequisite (SYS 5404) or have permission of instructor.

Equivalent Courses

CSE678, ECE678

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 6462 Dyn Control Robot Manipulators

Course Info

Course Title

Dynamics and Control of Robot Manipulators

Course Description

Cartesian and joint space representations and transformations. The Denavit-Hartenberg (D-H) convention and parameter tables. Robotic forward and inverse kinematics and task planning. Newton-Euler and Lagrangian dynamic models and formulations. Robotic joint servo control, position control, force control, compliant motion and many industrial application aspects. Computer numerical and graphical simulations.Prerequisite (s): Student must meet prerequisite SYS 5404 or ECE 5404.

Equivalent Courses

SYS6462

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 6520 Automotive Mechatronics II

Course Info

Course Title

Automotive Mechatronics II

Course Description

An extensive review and in-depth explanation of mechatronics schemes for computer-controlled systems in current automotive systems. Advances for vehicle body dynamics control, electric & hybrid vehicles, active safety, and self-driving. State-of-the-art technologies and methodologies such as MEMs & nanotech, sensors, actuators, power electronics, computation, AI decisions & control.

Equivalent Courses

SYS6520

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6712 Parallel Embed Comp Architec

Course Info

Course Title

Parallel Embedded Computer Architecture

Course Description

Parallel computer systems: SIMD, MIMD, Shared memory, NUMA, UMA architectures, multiple bus, interconnection network, distributed memories, message passing structures, hierarchical caches, snooping controller design, directory-based cache coherency, performance evaluation of parallel systems, instruction level parallelism, practical small multiprocessor system design issues, large scalable multiprocessor systems, grid computer performance, chip multiprocessor system (multiple cores), network processors and the future of parallel architectures. Credits cannot be received for both ECE 664 and CSE 664.

Equivalent Courses

ECE664

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6740 Adv Embedded Sys Design

Course Info

Course Title

Advanced Embedded System Design

Course Description

Design of high-speed reconfigurable embedded systems using both a microprocessor and an FPGA. Topics and exercises include designing and implementing an intelligent system using various microcontrollers, profiling and analyzing code for performance, designing and implementing special-purpose processors on an FPGA to work cooperatively with the microcontroller for significant performance gains, fuzzy logic for embedded systems, standards and interface issues between the microcontroller and FPGA-based system, and design for low power mobile systems. Project-oriented course. Prerequisite: (ECE5710 or experience with VHDL/Verilog) and (ECE5721 or experience with programming a microcontroller)

Equivalent Courses

CSE678, ECE676

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6742 DSP in Embedded Systems

Course Info

Course Title

DSP in Embedded Systems

Course Description

This course emphasizes design of embedded systems using Digital Signal Processing microprocessors and special DSP FPGA chips. Topics covered include DSP microprocessor architecture, advanced instructions, addressing modes, interrupt, system design considerations, interfacing serial and parallel I/O, memory structure, arithmetic manipulations, software development tools, multiple DSP processor system design, and embedded system applications. Applications include automotive, multimedia, and wireless communications. Performance measurement, benchmarking and DSP system simulation, testing and debugging. The students will do a set of lab projects and a large embedded system design project. Previously ECE 671. Credit cannot be received for more than one of CSE 671, ECE 671 or ECE 6742. Prerequisites: ECE 5721

Equivalent Courses

CSE671, ECE671

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6745 Real-Time Computing Systems

Course Info

Course Title

Real-Time Computing Systems

Course Description

This course emphasizes hard and soft real-time computer system design for single-processor and multi-core embedded systems and distributed real-time systems. Topics covered include characterizing real-time systems measuring performance, task assignments, scheduling, fault tolerant scheduling, run-time error handling, run-time support, kernel, real-time databases, real-time communication, software development techniques, practical applications. Previously ECE 666. Prerequisites: ECE 5721 or ECE 5710

Equivalent Courses

ECE666

College/School

School of Egr. and Comp. Sci.

Department

Electrl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6760 Safety Crit Embedded Systems

Course Info

Course Title
Safety Critical Embedded Systems

Course Description
This course focuses on fundamental concepts and dependable computing and design methodologies for fault tolerant computing systems. Topics covered include hardware fault tolerance, software fault tolerance, information redundancy, check pointing, fault tolerant networks, reconfiguration-based fault tolerance, and simulation techniques. Students will gain familiarity with the core and contemporary literature in the area for dependable computing. Prerequisites: ECE 5721

Equivalent Courses
ECE672

College/School
School of Egr. and Comp. Sci.

Department
Electrcl & Comptr Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 6996 Graduate Engineering Project

Course Info

Course Title
Graduate Engineering Project

Course Description
Independent work on an advanced project in electrical engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 4 credits. Formerly ECE 690.

Equivalent Courses
ECE690

College/School
School of Egr. and Comp. Sci.

Department
Electrcl & Comptr Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

ECE 6998 Master's Thesis Research

Course Info

Course Title

Master's Thesis Research

Course Description

Directed research leading to a master's thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ECE 691. Prerequisite: At least one course from the core and theory group of courses.

Equivalent Courses

ECE691

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

ECE 7300 Coherent Optics

Course Info

Course Title

Coherent Optics

Course Description

Current developments in coherent optics and holography; two-dimensional Fourier analysis, diffraction theory, Fourier transforming and imaging properties of lenses, holographic interferometry, optical data processing. With laboratory. Previously EE 741 and ECE 741. Credit cannot be received for more than one of EE 741, ECE 741, ECE 7300. Prerequisites: SYS 5404 and at least one course from the core and theory group of courses.

Equivalent Courses

ECE741

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:
4

ECE 7402 Large Scale Dynamic Systems

Course Info

Course Title

Large Scale Dynamic Systems

Course Description

Analysis using a systems methodology including state variable modeling and multilevel structure. Structural stability, dynamic reliability, aggregation and decomposition. Application to estimation and control of large systems. Prerequisite (s): Student must meet SYS 5404 or ECE 5404.

Equivalent Courses

SYS7402

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ECE 7404 Theory of Networks

Course Info

Course Title

Theory of Networks

Course Description

Network models of linear dynamic systems; network graphs and topological constraints, generalized equilibrium equations, time-frequency duality, energy and stability constraints, network passivity or activity, input-output representations, and state-transition matrices. Previously EE 725 and ECE 725. Credit cannot be received for more than one of EE 725, ECE 725, ECE 7404. Prerequisites: SYS 5404 and at least one course from the core and theory group of courses.

Equivalent Courses

ECE725, EE725

College/School

School of Egr. and Comp. Sci.

Department

Electrcl & Comptr Engineering

Credits

Credit Hours

Units:

4

ECE 7900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Advanced independent study in a special area in electrical and computer engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ECE 795.

Equivalent Courses

ECE795

College/School

School of Egr. and Comp. Sci.

Department

Electrc'l & Compr Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ECE 7970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Advanced independent study in a special area in electrical and computer engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 4 credits. Formerly ECE 794.

Equivalent Courses

ECE794

College/School

School of Egr. and Comp. Sci.

Department

Electrc'l & Compr Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ECE 8999 Doctoral Dissertation Research

Course Info

Course Title
Doctoral Dissertation Research

Course Description
Directed Research toward the doctoral dissertation. May be taken more than once for a minimum of 24 credits. Formerly ECE 790.

Equivalent Courses
ECE790

College/School
School of Egr. and Comp. Sci.

Department
Electrc'l & Comp't'r Engineering

Credits
Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

ECN 5010 Introduction to Economics

Course Info

Course Title
Introduction to Economics

Course Description
This course covers the fundamental concepts of micro and macro economics. In addition, it introduces the student to concepts needed to manage in the 21st century with special attention to the global macro economy's impact on domestic firms. Formerly ECN 501.

Equivalent Courses
ECN501

College/School
School of Business Admin.

Department
Economics

Credits
Credit Hours

Units:
3

ECN 5050 Econometrics

Course Info

Course Title

Econometrics

Course Description

Estimation and testing of economic models using regression techniques. Includes experience with violations of regression assumptions, binary variables, autoregression and distributive lag models and the structure of "large" simultaneous equation models. Formerly ECN 605. Prerequisite: ECN 5210 or its equivalent.

Equivalent Courses

ECN605

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 5180 Seminar in Economic Policy

Course Info

Course Title

Seminar in Economic Policy

Course Description

Analysis of economic policy. Topics vary but may include resource allocation, macroeconomic stability, economic growth, energy, public choice, global economic interdependence and the environment. Students may take this course up to three times with different subtopics. Formerly ECN 618. Prerequisite: ECN 5210

Equivalent Courses

ECN618

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	9

ECN 5210 Economics for Managers

Course Info

Course Title

Economics for Managers

Course Description

Explores microeconomic and macroeconomic topics of importance to managerial decision-making. Topics include: constrained decision making, demand analysis, cost analysis, alternative market structures, determinants of inflation and unemployment, economic indicators and the business cycle, and the role of monetary and fiscal policy in an open and closed economy. Formerly ECN 521. Prerequisites: QMM 5100 and have completed a course in microeconomics and a course in macroeconomics.

Equivalent Courses

ECN521

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

ECN 5300 Macroeconomic Policy/ Global En

Course Info

Course Title

Macroeconomic Policy in a Global Economy

Course Description

This course enhances students' ability to analyze national and international economic data and to understand discussions of macroeconomic issues in the business press and their implications for business decision-making. The emphasis in the course will be influenced by current events related to global macroeconomics. Students will learn how macroeconomic policies impact U.S. and global economies. It will cover growth through the supply side of the economy including technological growth and the labor market, as well as business cycles, exchange rates, fiscal and monetary policies, stabilization policy and trade, with a strong emphasis on international applications. Cases from Europe, Japan, China and other emerging market economies are used to boost the understanding of the world economy. (Generally offered in fall of odd years and summer of even years). Grade of B or Better. Prerequisite: Admission into MBA program

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 5500 Risk Management

Course Info

Course Title

Risk Management

Course Description

Course reviews interest rate theory, Poisson, exponential and probability models and then develops and uses a variety of actuarial and risk models such as contingent payment models, and frequency, severity and aggregate claims models. Prerequisites: ECN 5210 or equivalent.

Equivalent Courses

ECN550

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 5560 Public Finance

Course Info

Course Title

Public Finance

Course Description

The course studies the role and impact of the public sector in a market economy. It examines government spending programs and taxes within the context of efficiency and equity. There is a strong emphasis on current policy issues. Generally offered winter semester of odd years. Formerly ECN 656. Prerequisite: ECN 5210 or its equivalent.

Equivalent Courses

ECN656

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 5670 Economics of Health Care

Course Info

Course Title

Economics of Health Care

Course Description

The course explores application of tools of economic analysis to the health care industry and government health care policy. It examines the impact of the special characteristics of health care and the medical services industry on the pattern of health care produced, its distribution and resource allocation within the industry. Generally offered winter semester of even years. Formerly ECN 667.

Prerequisite: ECN 5210 or its equivalent.

Equivalent Courses

ECN667

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 6730 International Trade & Finance

Course Info

Course Title

International Trade and Finance

Course Description

Examination of the theory of international trade, international monetary mechanisms, exchange-rate regimes, the balance of payments and economic interdependence. Generally offered winter semester of odd years. Formerly ECN 673. Prerequisite: ECN 5210 or its equivalent.

Equivalent Courses

ECN673

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 6850 Economics of Industries

Course Info

Course Title

Economics of Industries

Course Description

The course studies the structure of American industry and the factors affecting it, with emphasis on economies of scale; barriers to entry; structure-behavior relationships, including pricing, product differentiation and technical change; evaluation of performance, antitrust and regulation. Generally offered fall semester of even years. Formerly ECN 685. Prerequisite: ECN 5210 or its equivalent.

Equivalent Courses

ECN685

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

ECN 6900 Special Topics in Economics

Course Info

Course Title

Special Topics in Economics

Course Description

An in-depth study of the application of economic theory to a specialized economics topic. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly ECN 680. Prerequisite ECN 5210

Equivalent Courses

ECN680

College/School

School of Business Admin.

Department

Economics

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

ECN 6970 Independent Study/
Economics

Course Info

Course Title
Independent Study in Economics

Course Description
Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly ECN 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses
ECN690

College/School
School of Business Admin.

Department
Economics

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

ED 7500 Contemporary American High
Ed

Course Info

Course Title
Contemporary American Higher Education

Course Description
Provides students with a broad understanding of contemporary American higher education through an examination of its current status and emerging future. Includes an examination of how higher education is organized, financed and governed at national, state, and local levels. Students will also examine the contemporary issues, policy debates, core values, political forces, and national trends impacting higher education. Students must be admitted to the Ph.D. program, the Master's in Nursing Education, the Post-Master's Certificate in Higher Education, or have permission of the instructor. Formerly ED 911 (ED 7500)

Equivalent Courses
ED911

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits

Credit Hours

Units:
4

ED 7510 Administering College/Univ

Course Info

Course Title

Administering the College or University

Course Description

Provides students with in-depth knowledge of the various divisions within a college or university and of the management and leadership responsibilities of division administrators. The class will visit various university/college programs and services and learn from their respective administrators. Students must be admitted to the Ph.D. program, the Master's in Nursing Education, the Post-Master's Certificate in Higher Education, or have permission of the instructor. Formerly ED 912 (ED 7510)

Equivalent Courses

CIL912, ED912

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 7520 Crit Ldshp Perspectives HighEd

Course Info

Course Title

Critical Leadership Perspectives in Higher Education

Course Description

Provides students with the knowledge and skill needed to understand and implement the processes of positive organizational change. The course will focus on successful models and exemplary practices in the use of leadership, management and power at senior levels of higher education organizations. Student must have a Master's degree and be admitted to the Post-Master's Graduate Certificate in Higher Education program or by permission of the instructor.Cross Listed with ED 7520

Equivalent Courses

CIL913, ED913, EL6520

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 7540 Resource Mgt in Higher Ed

Course Info

Course Title

Resource Management in Higher Education

Course Description

The purpose of this class is to provide students with knowledge and skills for the successful development and management of resources in higher education, including budgeting, financial analysis, fundraising, and grant writing. Prerequisites: Admission to the Ph.D. in Education, Post Master's in Higher Education, other OU master's degree program, or by permission of instructor. Formerly ED 921 (ED 7540)

Equivalent Courses

ED921

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 7580 Crit Soc Justice Persp High Ed

Course Info

Course Title

Critical Social Justice Perspectives in Higher Education

Course Description

This survey course will examine social inequities (due to racism, sexism, heterosexism, cissexism, ableism, classism and intersections and/in higher education. Informed by critical social theories and social justice pedagogy, the course utilizes frameworks, scholarship and current events to critically assess and address individual, institutional and systemic dynamics of oppression. Cross listed with EL 6580.

Equivalent Courses

EL6580

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 7682 Crit Hst Perspectives High Ed

Course Info

Course Title

Critical Historical Perspectives in Higher Education

Course Description

Explores the history of American higher education as a story of growth and change accompanied by a persistent struggle for definition and identity - from several different perspectives.
Cross-Listed with EL 6682

Equivalent Courses

EL6682

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

Repeat Limit
1

ED 7683 Introduction to Student Affair

Course Info

Course Title

Introduction to Student Affairs

Course Description

Provides students with an introduction to the major theories, practices, and issues relevant to the administration of student services in a college or university setting.Cross Listed with EL 6683

Equivalent Courses

EL6683

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

Repeat Limit
1

ED 7684 Intro to Academic Affairs

Course Info

Course Title

Introduction to Academic Affairs

Course Description

Prepares students for entry and mid-level positions in the academic affairs division of a college or university. Prepares students for entry and mid-level positions in the academic affairs division of a college or university. Students may enroll in classes at Professional Development (PD) level and subsequently be accepted to the PhD program. Up to 12 credits earned at PD level may be transferred and applied toward the required doctoral cognate credits.Cross listed with EL 6684

Equivalent Courses

EL6684

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 7950 Internship in Higher Education

Course Info

Course Title

Internship in Higher Education

Course Description

7Supervised second internship in higher education administration designed to give students a working knowledge of higher education practice and the opportunity to develop administrative skills and leadership capacity. Prerequisites: Admission to the Ph.D. in Educational Leadership and approval for the cognate in higher education. Coordinator approval of the internship site(s) and site preceptor is also required prior to the start of the internship. Completion of at least 4 credit hours of cognate course work prior to beginning the internship is strongly recommended. Permission of instructor required. Formerly ED 914 (ED 7950)

Equivalent Courses

ED914

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Credit Hours

Max:

8

Repeat Rules

Repeat Status Code

RP

Maximum Hours

8

ED 8000 Foundation/District Leadership

Course Info

Course Title

Foundations of District Leadership

Course Description

This course will concentrate on the study and analysis of leadership at the district level in the creation of a shared vision for schooling derived from research and real district experience. The knowledge of transforming behaviors and support for instructional leadership will be a major focus. Student must be admitted in program. Formerly ED 800 (ED 8000)

Equivalent Courses

ED800

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ED 8010 Inst Lead/Using Data & Issues

Course Info

Course Title

Supporting Instructional Leadership: Using Data and Issues in Assessment and Program Evaluation

Course Description

Students will explore the roles of central office and school administrators in leading system change for school in school improvement. Students will analyze data to identify and target student achievement goals and teacher professional learning to support this growth. Specific topics will be selected from a range of curriculum, assessment and instruction issues. Roles and responsibilities of teachers, administrators, parents and community member in the system change process will be addressed and clarified. Formerly ED 810

Equivalent Courses

ED810

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8020 Organizational Resources & Ops

Course Info

Course Title

Organizational Resources and Operations

Course Description

This course focuses on the importance of aligning Human and Financial Resources with the District's Mission. Attention will be given to human resource functions including recruiting and hiring, performance evaluation and professional development. Fiscal and business functions of the central office administration will also receive attention. Formerly ED 802

Equivalent Courses

ED820

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8025 District Role/Formal-Informal

Course Info

Course Title

District Role in Developing Relationship with Formal/Informal Groups

Course Description

This course will examine a range of methods designed to build relationships with employee groups within a school district. Course topics will include traditional and collaborative approaches to bargaining and employee relations.

Equivalent Courses

ED825

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8030 District Leadership/Community

Course Info

Course Title

District Leadership and the Community

Course Description

Students will examine a range of school/community relations issues to identify major stakeholders, their roles and impact on the school and school district as well as how to develop effective communications with each group. Formerly ED 830

Equivalent Courses

ED830

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8040 Ldrship Beyond School District

Course Info

Course Title

District Leadership Beyond the School District: Navigating Political, Legal and Economic Environment

Course Description

Students will examine policy and policy development at the regional, state and national levels; legislative relations and advocacy; legal issues impacting schools and school districts; and alternative means for responding to financial constraints. Formerly ED 840

Equivalent Courses

ED840

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8410 Phil/Ethical Issues Org Ldrshp

Course Info

Course Title

Philosophical and Ethical Issues of Organizational Leadership

Course Description

Investigates classical and contemporary theories of philosophy and ethical issues and their influence on organizational leadership beliefs and practices. This course offers a special focus on the issue of ethics and leadership. Formerly ED 801Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

Equivalent Courses

CIL801, ED801

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ED 8420 Adv Politics/Policy Org Ldrshp

Course Info

Course Title

Advanced Politics and Policy in Organizational Leadership

Course Description

This course examines the historical, economic, and political forces that impact contemporary organizations across different contexts at the macro-level, as well as developing a deeper understanding of organizational politics at the micro-level. Changing responsibilities among local, state, and federal levels of government will be examined. Formerly ED 802Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

Equivalent Courses

CIL802, ED802

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8430 Diversity in Orgn Ldrshp

Course Info

Course Title

Promoting Diversity and Social Justice in Organizations

Course Description

The course addresses the socio-historical factors relating to current issues in diversity inclusion and increasing social justice as an organizational leader. Building on cross-cultural leadership paradigms as well as approaches to diversity experiences in the workplace, this course facilitates the formation of leadership skills for a rapidly changing global landscape. Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8440 Org/Adlt Lrn Theories/Prof Cap

Course Info

Course Title

Organizational and Adult Learning Theories and Building Professional Capital

Course Description

Provides an overview of classical learning theories associated with behavioral, developmental and cognitive schools of thought. Students will explore the application of such theories to issues of leadership, school and community culture, curriculum and staff development. Formerly ED 804 Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

Equivalent Courses

CIL804, ED804

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8450 Motivation and Org Leadership

Course Info

Course Title

Motivation, Change and Innovation for Organizational Leadership

Course Description

This course introduces the student to theory and knowledge related to work motivation, principles of change and their impact on innovation and organizational learning and growth. Students will identify issues in motivation and analyze change dynamics in organizational contexts. Students will apply this learning using their own institutions/organizations as laboratories. Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8460 Prin Org Ldrshp

Course Info

Course Title

Principles of Organizational Leadership

Course Description

This course addresses the knowledge and skills underlying leadership across different organizational contexts. It explores theories and leadership styles from historical and contemporary points of view. Students will identify leaders and leadership situations that are examples of the various theories. Students will apply leadership theories using their institutions/organizations as laboratories. Prerequisite(s): Student must be admitted to the Ed.D. or the Ph.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 8610 Program Evaluation

Course Info

Course Title

Program Evaluation

Course Description

This course prepares students to develop and implement comprehensive program evaluations in a variety of settings. Course content focuses on theories of program evaluation, evaluation planning and design, data collection and analysis, using evaluation results and ethical and practical issues of program evaluation.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 8620 Evidence for Program Evaluatio

Course Info

Course Title

Gathering, Reading, Assessing and Communicating Evidence for Program Evaluation

Course Description

Program evaluation require data to support conclusions and recommendations both from the organization being evaluated and other relevant sources. This course prepares students to systematically collect, evaluate and communicate in writing (and other modes) the essential data other than that collected from the evaluation site during the internship sequence.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ED 8630 Capstone Project Completion

Course Info

Course Title

Capstone Project Completion

Course Description

This course trains students in the processes of finalizing results, communicating the evidence and drawing conclusions for evidence-based practice. Program evaluations provide recommendations both from the organization being evaluated and other relevant sources. This course prepares students to finalize, prepare, disseminate and present the findings from this evaluation.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 8950 Intern/District Level Ldrship

Course Info

Course Title

Internship in District Level Leadership

Course Description

Designed as a series of three interconnected courses (ED 8950, 8951, 8952) that stretch across the program, the internship experience is intended to help candidates demonstrate both program goals and state leadership standards by linking required course activities to authentic leadership practices. Under the guidance of a mentor team, candidates will have structured and sustained opportunities to increase their skill and competence as central office leaders with a commitment to all students' learning. During the internship, successful candidates will demonstrate evidence of increased skill and competence through the design and implementation of a significant district-level systems change project. Student must be admitted in program. Formerly ED 850.

Equivalent Courses

ED850

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8951 Expanding the Internship

Course Info

Course Title

Expanding the Internship

Course Description

Designed as a series of three interconnected courses that stretch across the program, the internship experience is intended to help candidates demonstrate both program goals and state leadership standards by linking required course activities to authentic leadership practices. Under the guidance of a mentor team, candidates will have structured and sustained opportunities to increase their skill and competence as central office leaders with a commitment to all students' learning. Formerly ED 855.

Equivalent Courses

ED855

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8952 Reflecting on the Internship

Course Info

Course Title

Reflecting on the Internship

Course Description

Designed as a series of three interconnected courses that stretch across the program, the internship is intended to help candidates demonstrate both program goals and state leadership standards by linking required course activities to authentic leadership practices. Under the guidance of a mentor team, candidates will have structured and sustained opportunities to increase their skill and competence as central office leaders with a commitment to all students' learning. Formerly ED 860

Equivalent Courses

ED860

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 8953 Org Leadership Internship I

Course Info

Course Title

Organizational Leadership Internship I

Course Description

This course comprises a 50 hour supervised internship in an organization of your choice. This experience is designed to give you a thorough knowledge of the organization's structure, and practice and develop an understanding of the organizational context and build a base on which to develop a Capstone Project.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 8954 Org Leadership Internship II

Course Info

Course Title

Organizational Leadership Internship II

Course Description

This course comprises a 50 hour supervised internship in an organization of your choice. This experience is designed to give you a thorough knowledge of the organization's structure, and practice and develop an understanding of the organizational context and build a base on which to develop a Capstone Project.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 8955 Org Leadership Internship III

Course Info

Course Title

Organizational Leadership III

Course Description

This course comprises a 50 hour supervised internship in an organization of your choice. This experience is designed to give you a thorough knowledge of the organization's structure, and practice and develop an understanding of the organizational context and build a base on which to develop a Capstone Project.Prerequisite(s): Student must be admitted to the Ed.D. degree program.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

ED 8970 Independent Doctoral Studies

Course Info

Course Title

Independent Doctoral Studies in Educational Leadership

Course Description

Pursues a directed independent study of topics related to leadership at the doctoral level. May be taken more than once, but for no more than a total of 8 credits. Student must have permission of adviser/instructor. Formerly ED 799 (ED 8970)

Equivalent Courses

ED799

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code
RP

Repeat Limit
9

Maximum Hours
99

ED 9010 Research Methodology

Course Info

Course Title

Research Methodology

Course Description

Considers various modes of human science inquiry appropriate to the fields of education and human services. Examines a range of conceptions and strategies in light of students' emerging research interests. Studies tools of research, research planning and design, research methodologies and communication of results of research. Student must be admitted to Ph.D. program. Formerly ED 732 (ED 9010)

Equivalent Courses

CIL732, ED732

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 9020 Analytical Methods

Course Info

Course Title

Analytical Methods

Course Description

Offers a variety of research methods for analyzing empirical data. Considers the appropriateness of fit between various analytical procedures and diverse sets of data drawn from a range of settings in education and human services. Examines assumptions underlying different methods of analysis, different statistical designs and procedures, and different ways of interpreting data. Student must be admitted to Ph.D. program. Formerly ED 733 (ED 9020)

Equivalent Courses

CIL733, ED733

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 9100 Ldr Research Issues/Prop Dev

Course Info

Course Title

Leadership Research Issues and Pro Development

Course Description

Provides students with the opportunity to apply research methodology to selected issues in educational leadership. The major focus of the course will be the preparation of dissertation proposal. Student must be admitted to the Ph.D. program. Formerly ED 903

Equivalent Courses

CIL903, ED903

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

ED 9900 Topics in Advanced Methodology

Course Info

Course Title

Topics in Advanced Methodology

Course Description

ED 991 will train students advanced methodology, taken while the student is planning his/her dissertation methodology approach. It will have a "special topics" structure including: survey design and advanced psychometric analysis; case study design; advanced approaches to coding and thematic analysis. Additional topics will be identified as needed. Prerequisites: ED/EC/CNS 732 and ED/EC/CNS 733 or equivalent. Student must have achieved candidacy. Formerly ED 991

Equivalent Courses

ED991

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

3

ED 9930 Field-Based Mentor Issues I

Course Info

Course Title

Field-Based Mentorship Issues I

Course Description

Provides students an opportunity to reflect on their experience in working with a field-based mentor and to apply theory and research in the mentor's environment. Students will also work to refine a dissertation research proposal, possibly based on a problem identified with the help of the mentor. Student must be admitted to the Ph.D. program. Formerly ED 901

Equivalent Courses

CIL901, ED901

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 9931 Field-Based Mentor Issues II

Course Info

Course Title

Field-Based Mentorship Issues II

Course Description

Provides students an opportunity to reflect on their experience in working with a field-based mentor and to apply theory and research in the mentor's environment. Students will also work to refine a dissertation research proposal, possibly based on a problem identified with the help of the mentor. Student must be admitted to the Ph.D. program. Formerly ED 902

Equivalent Courses

CIL902, ED902

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 9940 Professional Seminar I

Course Info

Course Title

Professional Seminar

Course Description

Provides students with an overview of the study of education as it is approached in academic research. The course approaches education as an interdisciplinary study that bridges practice, theory, and empirical research. The course provides training in the level of critical thought and writing needed to be successful in the doctoral program. Formerly ED 730 (ED9940)

Equivalent Courses

ED730

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 9941 Professional Seminar II

Course Info

Course Title

Professional Seminar II

Course Description

Provides students with an overview of the study of education as it is approached in academic research. The course approaches education as an interdisciplinary study that bridges practice, theory, and empirical research. The course provides training in the level of critical thought and writing needed to be successful in the doctoral program. Formerly ED 730 (ED9940)

Equivalent Courses

CNS731, CNS8110, EC731, EC9941, ED731

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

ED 9942 Doc Wrtg Ed Ldrshp

Course Info

Course Title

Doctoral Writing Seminar in Educational Leadership

Course Description

This seminar is designed to help students accomplish three things: to establish writing routines; to make substantial progress on a written project; and to become a better writer. Topics will include academic writing style, using research evidence to support ideas; effective organization; citing references using APA style; and using figures and table so present information effectively. Credits will not count toward degree requirement for students with Post-Candidate status.

Equivalent Courses

ED995

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Credit Hours

Max:

12

ED 9999 Dissertation Research

Course Info

Course Title

Dissertation Research

Course Description

The student will register for course credits consistent with pace of research and writing. Student must be admitted to the Ph.D. program. Formerly ED 999

Equivalent Courses

ED999

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Credit Hours

Max:

16

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
35

Maximum Hours
98

EED 5000 Content for Teaching - Elem

Course Info

Course Title

Content for Teaching - Elementary

Course Description

This course develops student knowledge of content for the successful achievement of disciplinary standards in elementary social studies, science, mathematics, and English language arts. Students engage in online and in-person sessions across four content-focused modules taught by four content area education faculty.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EED 5300 Elem Math Methods 1

Course Info

Course Title

Elementary Mathematics Methods 1

Course Description

This course will assist teacher candidates in developing their mathematical pedagogical content knowledge in Grades PK through 3. This course will focus on developing knowledge of content and students, knowledge of curriculum, and knowledge for teaching attribution, whole number counting, whole number representation, whole number operations, and early fraction concepts.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EED 5340 Elem Math Methods 2

Course Info

Course Title

Elementary Mathematics Methods 2

Course Description

This course will assist teacher candidates in developing their mathematical pedagogical content knowledge in Grades PK through 6. Specifically, this course will focus on developing knowledge of content and students, knowledge of curriculum, and knowledge for teaching rational numbers and operations. Prerequisite(s): EED 5300 - Elem Math Methods 1

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EED 5400 Elem Science Methods

Course Info

Course Title

Elementary Science Methods

Course Description

Develops philosophies, rationale, high leverage practices, and research-based methods for teaching elementary science PK-6. Explores knowledge and skills for planning equitable science instruction, using instructional models, integrating the curriculum, evaluating and using current instructional materials and evaluating outcomes. Includes field assignments to be completed in an elementary classroom setting.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EED 5500 Elem Soc Studies Methods

Course Info

Course Title

Elementary Social Studies Methods

Course Description

Teacher candidates will develop disciplinary and pedagogical content knowledge within the teaching and learning of social studies for the purpose of enabling students to understand, participate in, and make informed decisions that advance justice in a culturally diverse and interdependent world.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EED 5600 Foundations 1

Course Info

Course Title

Foundations 1

Course Description

Introduction to teaching, learning, and schooling in a democracy. Explores professional dispositions and ethical responsibilities of teaching through reflective writing, an in-depth child study, an equity audit, and teacher leadership inquiry project. Foundations I includes a 30 hour field placement.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

EED 5620 Foundations 2

Course Info

Course Title

Foundations 2

Course Description

Introduction to programmatic focus on learning theory and educational psychology. Draws on Universal Design for Learning to explore knowledge and skills in planning for effective instruction and meaningful assessment for learning. Foundations II includes a 30 hour field placement.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EED 6600 Foundations 3

Course Info

Course Title

Foundations 3

Course Description

Supports enactment of effective instruction with diverse learners, deepening knowledge and skills in assessment for learning of all students. Exploration of technology, as well as the arts, movement, health, and wellness in high-quality instruction. Focused design and preparation for teacher inquiry project. Foundations III includes a 30 hour field placement.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EED 6620 Foundations 4

Course Info

Course Title

Foundations 4

Course Description

Support and extend learning during the internship. Continued exploration of identity as professional and teacher leader. Emphasis on partnering with families, awareness of educational policy, and advocacy for children, families and the profession. Professional presentation of teacher inquiry and a beginning teacher portfolio.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EED 6950 Internship in Elementary Ed

Course Info

Course Title

Internship in Elementary Education

Course Description

This course allows pre-service teachers to apply the knowledge, skills, and dispositions they have developed in order to grow in the areas of planning, instruction, assessment, and building relationships. Interns will work with their mentor teachers and transition into full-time teaching responsibilities, while being supervised by an Oakland University supervisor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

NR

EEI 7700 Ecol Foundations/Early Interv

Course Info

Course Title

Ecological Foundations of Early Intervention

Course Description

Students will compare and analyze theories that form the foundation of early intervention programs. Students will investigate the interrelated effects of culture and society, including family, neighborhood, school, community and public institutions. Views from multiple disciplines will be considered with regards to issues of risk, resilience, prevention and intervention. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI700

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7701 Child Development I

Course Info

Course Title

Child Development I

Course Description

This course addresses theories and principles of motor, adaptive, and socio-emotional development in young children. The course reviews states of development, variability in special needs and implications for child, family, community and curriculum. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI701

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7702 Child Development II

Course Info

Course Title

Child Development II

Course Description

This course addresses theories and principles of cognitive and language development in young children. The course reviews stages of development, variability in special needs, and implications for the child, family, community and curriculum. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have instructor permission.

Equivalent Courses

EEI702

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7703 Collab/Consult/Early Interv'n

Course Info

Course Title

Collaboration and Consultation in Early Intervention

Course Description

This course blends theory, research and practice to investigate topics of inclusion, collaboration and consultation. Students will develop communicative, interactive and collaborative problem-solving skills for working with families, school personnel, and community agencies. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI703

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7704 Law/Pol/Pract/Educ Yng Chldrn

Course Info

Course Title

Law, Policy and Practice Issues in the Education of Young Children with Special Needs

Course Description

Students will explore the interplay among, law, policy and practice in the context of early childhood education and special education programs. Students will review special education law and processes, examine current standards for ECSE programs and teachers, and explore the range of ECSE programs and practices. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI704

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7705 Interven/Inclusion Practices I

Course Info

Course Title

Intervention Strategies and Inclusion Practices I: Birth to 5 years

Course Description

Students will examine contemporary practices in programs for children birth to age 5. Students will investigate child and environmental assessment tools in order to use information to support children in settings including home, community, special education and general education settings. Features of physical, temporal, and interpersonal environments will be studied. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI705

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7706 Interven/Inclusion Practice II

Course Info

Course Title

Intervention Strategies and Inclusion Practices II: Early Elementary Programs

Course Description

Students will examine contemporary practices in elementary school settings; investigate how student achievement is evaluated and how children with special needs are identified; and explore strategies for implementing interventions with children in the home, community, special education and general education settings. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI706

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EEI 7707 Applied Rsrch/Ldrshp/Early Int

Course Info

Course Title

Applied Research and Leadership in Early Education and Intervention

Course Description

This course provides students with opportunity to demonstrate leadership in planning, implementing and evaluating an action research project in early education and intervention. Projects may focus on a wide range of topics and can be implemented in a variety of educational settings with diverse constituents. Students must be admitted to the Education Specialist in Early Education and Intervention degree program or have permission of the instructor.

Equivalent Courses

EEI707

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

EGR 5940 Engineering Seminar

Course Info

Course Title
Engineering Seminar

Course Description
Lectures and discussions conducted by faculty, graduate students and speakers from industry and other universities. Emphasis is on current research interests of the school. Formerly EGR 500.

Equivalent Courses
EGR500

College/School
School of Egr. and Comp. Sci.

Department
Engineering

Credits
Credit Hours

Units:
1

EGR 8999 Doctoral Dissertation Research

Course Info

Course Title
Doctoral Dissertation Research

Course Description
Directed research toward the doctoral dissertation. Formerly EGR 790.

Equivalent Courses
EGR790

College/School
School of Egr. and Comp. Sci.

Department
Engineering

Credits
Credit Hours

Units:	Credit Hours
1	Max: 12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	30	99

EHS 5000 Introduction to EHS Research

Course Info

Course Title

Introduction to EHS Research

Course Description

An introductory graduate-level course in research methods for students pursuing the Master of Science degree in Safety Management. Topics include: scientific methods, ethics, research design, interpretation of existing research statistical concepts, computer applications, development of research problems, instrumentation, and proposal preparation and presentation. Formerly OSH 500. Prerequisite: STA 2220 and be admitted to the Master of Science in Safety Management program.

Equivalent Courses

EHS500, OSH500

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

EHS 5100 Fundamentals of Occ Hygiene

Course Info

Course Title

Fundamentals of Occupational Hygiene

Course Description

This course will address the concepts of anticipation, recognition, evaluation, and control of occupational health hazards focusing on chemical, physical and biological hazards. This graduate course is cross listed with the undergraduate course (EHS 4100). Credit cannot be received for both EHS 4100 and EHS 5100. Prerequisite(s): CHM 2010 (C); PHY 1200 (C) or PHY 1010; and EHS 3380 (C+)

Equivalent Courses

EHS5350

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

EHS 5200 Advanced Safety/Health Admin

Course Info

Course Title

Advanced Safety and Health Administration

Course Description

This course emphasizes administrative aspects necessary to implement a comprehensive safety and health program management system to include modern management principles and their application to safety and health. Topics include: safety program organization, elements of a systematic safety management program, training and motivation, effective management principles, organizational culture, ethics, and professional conduct. Formerly OSH 520, OSH 5200.

Equivalent Courses

EHS520, OSH520

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

EHS 5400 Risk Assessment/Loss Control

Course Info

Course Title

Risk Assessment and Loss Control

Course Description

Advanced study of methods to analyze workplace hazards and assess the probability and severity of adverse effects of identified hazards. These risk assessments are used to determine cost effective use of resources to avoid, eliminate, or control hazards to attain a workplace for which risks are judged to be acceptable. Formerly OSH 540, OSH 5400.

Equivalent Courses

EHS540, OSH540

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

EHS 5410 Accid/Incident Inv and Analysis

Course Info

Course Title

Accident/Incident Investigation and Analysis

Course Description

A review of methodologies for accident and incident investigation and analysis. Topics include data collection, investigative methodologies, interviewing techniques, techniques of data analysis, reporting formats, systems safety, and developing recommendations to prevent recurrence. Cross-listed with EHS 4410. Credit cannot be received for both EHS 5410 and EHS 4410. Prerequisite(s): EHS 3380 (C+) or instructor permission

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EHS 5420 Construction Safety

Course Info

Course Title

Construction Safety

Course Description

A general introductory course in construction safety that attempts to address the many facets of creating an organizational setting where management and workers are educated and motivated to perform safe, productive construction work. The course is attended to provide a broad overview of the many elements to consider in executing small and large construction projects. The foundation of the course is to present proven safety management methods used by construction managers / contractors to run safe jobs and explore other strategies to create a world-class construction safety culture. This graduate course is cross listed with an undergraduate course (EHS 4420). Credit cannot be received for both EHS 5420 and EHS 4420. Prerequisite: EHS 3380 (C+)

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EHS 5440 Environmental Standards

Course Info

Course Title

Environmental Standards

Course Description

A general introductory course in environmental pollution, controls, and applicable standards. Legislation discussed includes Clean Air Act, Clean Water Act, Superfund, and the Resource Conservation and Recovery Act. The course examines important aspects of environmental science and technology and the impact on society. The technical foundation and policy choices underlying the key standards are examined, which includes a review of pollution sources, controls, measurement technologies, government intervention, and principles of risk assessment. This graduate course is cross listed with an undergraduate course (EHS 4440). Credit cannot be received for both EHS 5440 and EHS 4440.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EHS 5450 Ergonomics

Course Info

Course Title

Ergonomics

Course Description

Ergonomics and related change management concepts; anthropometry, biomechanics, metabolic energy expenditure, capabilities and limitations of workers; design and analysis of the workplace, hand tools, controls and products; application of the NIOSH lifting guidelines and other standards. This graduate course (EHS 5450) is cross listed with an undergraduate course (EHS 4450). Credit cannot be received for both EHS 5450 and EHS 4450. Prerequisites: EHS 3380 (C+) and BIO 1002 or BIO 1200 or BIO 2100 and BIO 2600 or WHP 4000 and WHP 4030 (C)

Course Attributes

No-cost materials (NCM)

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EHS 5460 Industrial Toxicology

Course Info

Course Title

Industrial and Environmental Toxicology

Course Description

Introduction to the basic concepts and techniques of toxicology, with special attention given to the industrial environment. Evaluation of the toxic effects of substances and toxic responses to various substances. Principles of toxicology applied to biological systems: exposure, bio-transformations and mechanisms of toxicity, dose-response relationships and factors influencing toxicity. Cross-listed with EHS 4460. Credit will not be granted for both EHS 4460 and EHS 5460. Prerequisite(s): EHS 3380 (C+) and CHM 2010 or CHM 2340

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

EHS 5550 Env Controls

Course Info

Course Title

Environmental Pollution and Controls

Course Description

A general course in environmental pollution and controls. The course follows Environmental Standards and provides a detailed overview in environmental engineering science and technology. Topics include: environmental ethics and risk analysis, water and air pollution, treatment technologies, solid and hazardous waste disposal, pollution control, and environmental impact and economic assessment. Cross-listed with EHS 4550. Credit will not be granted for both EHS 5550 and EHS 4550. Prerequisite or Corequisite: EHS 5440 can be taken at the same time

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

EHS 5600 Applied System Safety Analysis

Course Info

Course Title

Applied System Safety Analysis

Course Description

System safety provides disciplined approaches to hazard identification and risk analysis. The analytical techniques in this course can be used to assess risk to employees, facilities, equipment, production, quality and the environment. System safety analytical techniques will be applied to case studies drawn from professional practice. Formerly OSH 560 and OSH 5600.

Equivalent Courses

EHS560, OSH560

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

EHS 6996 Capstone Course

Course Info

Course Title

Capstone Course

Course Description

This course is a capstone experience that applies business management and safety and health program analytical and administrative course knowledge skills to a comprehensive case study situation. Formerly OSH 699 and EHS 699. Student must be admitted to the Master of Science in Safety Management program and have permission of the Program Director.

Equivalent Courses

EHS699, OSH699

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

EL 5100 Foundations of Leadership

Course Info

Course Title

Foundations of Leadership

Course Description

Designed to introduce topics of Teacher Leadership, including how teachers develop influence to become leaders within a classroom, grade level, department, and school. The course is taught as hybrid with face-to-face and online instruction. Prerequisite or Corequisite: EST 5105

Equivalent Courses

EL507

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

EL 5110 Collaborative Leadership

Course Info

Course Title

Collaborative Leadership

Course Description

This course is designed to develop skills in collaboration and school leadership, dealing with issues that challenge school leaders. The course is taught as hybrid with face-to-face and online instruction. Prerequisites: EST 5105, EL 5100, EST 5115 Corequisite: EST 6115.

Equivalent Courses

EL508

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

EL 5300 Intro to Educational Ldrshp

Course Info

Course Title

Introduction to Educational Leadership

Course Description

An introduction to educational leadership and preparation for the principalship. Examines current educational research and its use to improve instruction and leadership practices. Explores the role of federal, state, and local governments at elementary, middle, and secondary school settings.

Equivalent Courses

CIL510, EL500

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 5320 Staff/Curr Dev for Schl Impr

Course Info

Course Title

Staff and Curriculum Development for School Improvement

Course Description

Examines the current areas of curriculum development and research as they relate to local school district planning and implementation. Focuses attention on various indices and paradigms of effective staff training and development from the literature and research as related to practical applications for school improvement.

Equivalent Courses

CIL685, EL560

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 5340 Law for Teachers/Admin

Course Info

Course Title

Law for Teachers and Administrators

Course Description

Introduces school law, with a unique opportunity to study crucial areas in public/private education that affect all educators. Investigates landmark cases and legislative statutes concerning the rights and responsibilities of teachers, students and parents.

Equivalent Courses

CIL585, EL620

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 5360 Schools, Students/Ed Equity

Course Info

Course Title

Schools, Students and Educational Equity

Course Description

Examines curricular, organizational, and resource strategies for achieving educational equity for a wide range of student variability in a variety of school settings.

Equivalent Courses

CIL509, EL520

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 5900 Current Issues/Amer Higher Ed

Course Info

Course Title

Current Issues in American Higher Education

Course Description

This course will strengthen the student's understanding of the complex issues facing American higher education today.

Equivalent Courses

EL582

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 6100 Technology for Leadership

Course Info

Course Title

Technology for Leadership

Course Description

Develops knowledge and skills using technology and research to improve instruction emphasizing the use of a variety of digital tools. Prerequisites: EST 5105 and EL 5100.

Equivalent Courses

EL607

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

EL 6110 Change Agent Equitable Schools

Course Info

Course Title

Teacher Leader as Change Agent for Equitable Schools

Course Description

Equips Teacher Leaders with new understandings and practical tools for leading data-driven change at the building level. Additional emphasis will be placed on promotion cultural proficiency and equity within a distributed or shared model of school leadership. Prerequisites: EST 5105, EL 5100, EST 5115, EL 6100, EST 6115, EL 5110. Corequisite: EST 6105.

Equivalent Courses

EL608

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

EL 6120 Teacher Ldrs in Ed Profession

Course Info

Course Title

Teacher Leaders in the Education Profession

Course Description

Provides students with an understanding of the political, economic and legal environment in which Teacher Leaders function. Emphasis will be placed on becoming active in these arenas and building relationships that allow Teacher Leaders to function more effectively in their schools. Prerequisites: EST 5105, EL 5100, EST 5115, EL 6100, EST 6115, EL 5110, EST 6105, EL 6110. Corequisite: EL 619.

Equivalent Courses

EL609

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

EL 6160 Human Diversity Capstone

Course Info

Course Title

Human Diversity Inclusion and Social Justice Capstone Seminar

Course Description

Students in this course will reflect on the cumulative learning throughout the program and apply that to an action research project. Students will identify a problem or question that incorporates human diversity, workforce diversity or social justice principles and practices and write a research paper utilizing the APA writing format.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EL 6300 Theories/Techniques of Ldrshp

Course Info

Course Title

Theories and Techniques of Leadership

Course Description

Examines leadership theories and techniques. Identifies and critiques several theories of leadership and their application to various school environments. Explores major historical, philosophical, ethical, social, and economic influences affecting education in a democratic society.

Equivalent Courses

CIL580, EL530

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 6320 School Finance/Bus Admin

Course Info

Course Title

School Finance and Business Administration

Course Description

Examines the major principles that govern the design and implementation of school funding formulas in relation to concepts of equity and adequacy for all students. Issues related to general business operations such as transportation, maintenance, operations and food service will also be explored.

Equivalent Courses

CIL661, EL550

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 6680 Intro to American Higher Ed

Course Info

Course Title

Introduction to American Higher Education

Course Description

Provides students with an introduction to American higher education, its organization at national, state, local and institutional levels and to the roles and responsibilities of its administration.

Equivalent Courses

EL580

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EL 6681 Higher Ed & Ed Equity

Course Info

Course Title

Higher Education and Educational Equity

Course Description

Course will examine the effects of race, gender and socio-economic status on both access and persistence for students in American colleges and universities.

Equivalent Courses

EL584

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EL 6682 Crit Hst Perspectives High Ed

Course Info

Course Title

Critical Historical Perspectives in Higher Education

Course Description

This is a broad survey course which will acquaint students with the significant events and themes of both mainstream higher education and those issues of importance to people and institutions historically considered on the periphery. The aim of the course is to provide students who plan careers as administrators in higher education with a basic foundation in order to understand the origin and evolution of critical issues in higher education that are still important today with a particular emphasis on the history of the causes and consequences social justice issues. Cross Listed with ED 7682

Equivalent Courses

ED7682, EL581

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

EL 6683 Introduction to Student Affair

Course Info

Course Title

Introducation to Student Affairs

Course Description

Provides students with an introduction to the major theories, practices, and issues relevant to the administration of student services in a college or university setting.Cross Listed with ED 7683

Equivalent Courses

ED7683, EL586

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

EL 6684 Intro to Academic Affairs

Course Info

Course Title

Introduction to Academic Affairs

Course Description

Prepares students for entry and mid-level positions in the academic affairs division of a college or university. Prepares students for entry and mid-level positions in the academic affairs division of a college or university. Students may enroll in classes at Professional Development (PD) level and subsequently be accepted to the PhD program. Up to 12 credits earned at PD level may be transferred and applied toward the required doctoral cognate credits.Cross listed with ED 7684

Equivalent Courses

ED7684, EL583

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

EL 6685 Higher ED Ldrship Inclusion

Course Info

Course Title

Leading Effective Organizations to Higher Education Leadership for Equity and Inclusion

Course Description

Examines research and theory on effective leadership strategies and prepares students for informed leadership in higher education organizations.

Equivalent Courses

EL585

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

EL 6686 Crit Higher ED Policy Pract

Course Info

Course Title

Critical Higher Education Policy and Practice

Course Description

The goal of this course is to critically examine how higher education policies and broader social policies impact the implementation of an inclusive campus community in the United States. The course is informed by various disciplines, including history, sociology, ethnic studies, and public policy.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EL 6900 Current Topics/Higher Ed

Course Info

Course Title

Current Topics in Higher Education

Course Description

An in-depth study of one or more major current topics or issues of higher education, or of a selected administrative function in higher education institutions (e.g., college faculty development, intercollegiate athletics, fund raising, student financial aid, enrollment and retention, higher education law). Students must be admitted into a graduate program in the Department of Educational Leadership or must obtain permission of the instructor and the Higher Education Coordinator.

Equivalent Courses

EL625

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

EL 6950 Capstone Port and Internship

Course Info

Course Title

Capstone Portfolio and Internship

Course Description

Will provide practical opportunities to apply in the workplace the leadership and organizational theory learned in class, to acquire new professional skills, and to test new career directions.

Equivalent Courses

EL587

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

EL 6955 Intern for School Leaders I

Course Info

Course Title

Internship for School Leaders I

Course Description

Internship for School Leaders I provides students with an opportunity to apply new understandings about school leadership to the school setting. Under the supervision of a school-based mentor and university-based coordinator, students actively engage in standards-based leadership activities. Students document their growth as leaders through a plan-of-work, activity logs, and progress reports. Prerequisite: EL 500.

Equivalent Courses

CIL691, EL630

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
2

EL 6956 Intern for School Leaders II

Course Info

Course Title

Internship for School Leaders II

Course Description

Internship for School Leaders II provides students with an opportunity to apply new understandings about school leadership to the school setting. Under the supervision of a school-based mentor and university-based coordinator, students actively engage in standards-based leadership activities. Students document their growth as leaders through a plan-of-work, activity logs, and progress reports and a culminating e-portfolio. Prerequisite: EL 630.

Equivalent Courses

CIL692, EL640

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

EL 6960 Culm Master's Practicum in EL

Course Info

Course Title

Culminating Master's Practicum in Educational Leadership

Course Description

Synthesizes and applies knowledge and skills gained in the M.Ed. in educational leadership to professional activities in the field. Students prepare professional development workshops, analyze their own professional and personal progress during their master's program, and complete a professional portfolio as part of a final assessment of the master's program.

Equivalent Courses

CIL695, EL690

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

EL 6990 Special Studies in Ed Ldrshp

Course Info

Course Title

Special Studies in Educational Leadership

Course Description

Directed readings or independent study of topics related to leadership. May be taken more than once, but for no more than a total of 4 credits. Student must have permission of adviser.

Equivalent Courses

EL590

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	4

EL 6996 Issues in Educational Ldrshp

Course Info

Course Title

Issues in Educational Leadership

Course Description

Studies current issues impacting organization, administration and environment of schools. May be taken more than once, but for no more than 6 credits. Student must have permission of adviser.

Equivalent Courses

EL570

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:	Credit Hours Max:
1	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	6	6

EMBA 5000 Team. Comm. and Intro. Bus.

Course Info

Course Title

Teambuilding, Communications, and Introduction to Business Concepts

Course Description

This course introduces students to concepts that will support several core courses of the program. Particular attention will be given to fundamental concepts from accounting, finance, and economics and developing students' appreciation for how they are used to make critical strategic decisions. Examination of group and lean dynamics, diversity within teams, team building and communication skills are also covered in this course.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

EMBA 5040 Data Analytics for Executives

Course Info

Course Title

Data Analytics for Executives

Course Description

Emphasizes the application of statistics used by executives. Topics include summarizing and describing data; a review of visual displays and their uses; sampling and survey methods; sample size and parameter estimation for numerical and attribute data; hypothesis testing for one, two or several groups, including analysis of variance and multiple regression; analysis of trends and seasonal patterns; and the statistical tools of quality control. Includes report writing and team project presentations. Formerly HCM 504, EMBA 504. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA504, HCM504

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

EMBA 5110 Fin. Acctg and Disc.

Course Info

Course Title

Financial Accounting and Disclosures

Course Description

This course introduces the fundamentals of financial accounting used in the preparation and analysis of financial statements. It also introduces the required disclosures in the annual reports.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5120 Man. Acctg. and Dec. Making

Course Info

Course Title

Managerial Accounting and Decision Making

Course Description

This course introduces the cost - measurement, allocation, analysis, and budgeting for decision making and performance measurement. It also provides an understanding of strategic cost management principles and applications for businesses. Formerly HCM 512, EMBA 512. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA512, HCM512

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5210 Strategic and Comp. Anal.

Course Info

Course Title

Strategic Thinking and Competitive Analysis

Course Description

Topics covered included economic boundaries (analyzing the make vs buy decision, economics of scale & scope, mergers & acquisitions); understanding customers, pricing, competitors, and competitive advantage; and information economics and agency theory. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA521

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5220 Global Macroeconomic Env. Bus.

Course Info

Course Title

Global Macroeconomic Environment of Business

Course Description

The course emphasizes development of students ability to analyze national and international economic data and to understand discussions of global macroeconomic issues in the business press and their implications for business decision-making. Key topics include long-run economic growth, international trade, interest rates, exchange rates and monetary and fiscal policy.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EMBA 5300 Team Bldg/Leadership/Comm

Course Info

Course Title

Teambuilding, Leadership and Communication

Course Description

Comprehensive examination of group and team dynamics, diversity within teams, decision making skills, and planning and implementing change. Theories of leadership and leadership styles, and communication within the organization, including communication with employees and across cultures, will also be explored. Includes team projects. Formerly HCM 530, EMBA 530. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA530, HCM530

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5310 Leading People and Org.

Course Info

Course Title

Leading People and Organizations

Course Description

This course provides a foundation of key theories and approaches to leadership and opportunities for practical development of leadership skills. It will focus on both developing individual leaders and leadership capacity in organizations to promote organizational effectiveness. Additionally, it will synthesize the main challenges to effective leadership, how to learn from leadership failures, and prevent destructive leadership. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA531, HCM531

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EMBA 5315 Leadership Feedback and Development

Course Info

Course Title

Leadership Feedback and Development

Course Description

This course provides an overview of leadership development, with a focus on building self-awareness through feedback and reflection. Students will complete a 360-degree feedback assessment and develop personalized goals for the EMBA program and their professional careers.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5320 Negotiations and Conflict Resolution

Course Info

Course Title

Negotiations and Conflict Resolution

Course Description

The course is designed to develop students' strategic flexibility in negotiating and resolving conflict across a broad spectrum of business problems. Key topics include understanding the impact of power on conflict management, managing difficult conversations, and building tactics and tools to achieve conflict resolution and negotiate successfully.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5350 Global Strategic Management

Course Info

Course Title
Global Strategic Management

Course Description
This course introduces strategy formulation and implementation in a global context. Integrating theories in strategy and international business, applying business functional knowledge, the course helps students to learn how to make strategic decisions to gain and maintain competitive advantage in the global competitive market. Formerly EMBA 535. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses
EMBA535

College/School
School of Business Admin.

Department
School of Business Admin

Credits

Credit Hours

Units:
3

EMBA 5370 Integrative Capstone Project

Course Info

Course Title
Integrative Capstone Project

Course Description
All students in the Executive MBA program are required to complete an integrative action project (IAP) as part of the program. The objective of the IAP is to offer an exceptional opportunity for students to apply theory to address business problems. The project is introduced during the first year of the program and completed the last semester. Formerly EMBA 537. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses
EMBA537

College/School
School of Business Admin.

Department
School of Business Admin

Credits

Credit Hours

Units:	Credit Hours
1	Max:
	3

EMBA 5410 Operations Management

Course Info

Course Title

Global Supply Chain and Operations Management

Course Description

This 2- credit blended course will examine the three principle processes of Supply Chain Management: (1) Sourcing and Procurement, (2) Transformation, and (3) Distribution. Effective supply chains achieve cross functional integration of key business processes within the firm and across the network of firms that comprise the supply chain. Consequently, this course will focus on supply chain strategies for companies that operate globally, with an emphasis on how to plan and integrate supply chain components into coordinated systems.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

3

EMBA 5450 Bus. Info. and Anal. Sys.

Course Info

Course Title

Business Information and Analytics Systems

Course Description

This 2-credit blended course will examine various ranges of technologies, the foundation for creating an overall strategy, investment justification, business continuity and risk mitigation, and overall governance concepts for information systems. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA545, HCM545

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5500 Law, Ethics, and Leadership

Course Info

Course Title

Law, Ethics, and Leadership

Course Description

This course introduces ethics, law, responsibility, and the regulatory environment as they influence corporate activities and organizational decision-making and discuss the role of leadership in shaping the ethical environment. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA550, HCM550

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 5600 Marketing Management

Course Info

Course Title

Marketing Management

Course Description

Focus on the foundations of marketing the management of the marketing function including the rule of marketing in society and within the business enterprise; the use of marketing to gain competitive advantage and the practice of marketing in a rapidly changing business environment. Formerly HCM 560, EMBA 560. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA560, HCM560

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

3

EMBA 5700 Strategic Finance

Course Info

Course Title

Strategic Finance

Course Description

Introduction to the institutions, instruments, theories and analytical tools of financial management. Emphasis is on the application of financial concepts such as cash flow analysis, capital budgeting, sources of capital, and working capital management. Formerly HCM 570, EMBA 570. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

EMBA570, HCM570

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

3

EMBA 6370 Entrepreneurial Ldrshp

Course Info

Course Title

Entrepreneurial Leadership

Course Description

The learning objective is to develop an understanding of the characteristics of an entrepreneur, the essential activities for creating/running a successful business as an entrepreneur, and the exit alternatives for an entrepreneur. This course builds on the materials, contents and experiences of outside speakers who will share the successes and failures of becoming an entrepreneur as a small business owner and/or a manager running a business as an entrepreneur. Formerly EMBA 637.

Equivalent Courses

EMBA637

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 6410 Privacy and Security

Course Info

Course Title

Privacy and Security

Course Description

This course examines various issues related to privacy at the individual and organizational level. It will examine the relationship between security and privacy, impact of new technology on personal privacy, discrepancy in private laws between different nations, how privacy should be protected, issues pertaining to different types of data including marketing and medical data, how privacy laws are enacted and enforced, and how best to create a more just and appealing society.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 6500 Lean Leadership

Course Info

Course Title

Lean Leadership

Course Description

This course examines the philosophy and history of Lean Leadership. It will introduce not only to the tools of lean, but also discuss proven leadership techniques for implementing lean in an organization, managing culture change, and developing continuous improvement engagement throughout the workforce. Strategies to attain productivity enhancement, waste reduction, and quality improvements will also be covered.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

2

EMBA 6600 Special Topic

Course Info

Course Title

Special Topic

Course Description

6600 is a special topic course that is offered based on approved faculty submissions for each incoming cohort.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

EMBA 6900 Special Topic

Course Info

Course Title

Special Topic

Course Description

Special topics submitted by faculty and selected to be added to curriculum for each EMBA cohort.

Equivalent Courses

EMBA680

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

EMBA 6930 C-Suite Pres. and Prof. Dev.

Course Info

Course Title

C-Suite Presentations and Professional Development

Course Description

The skills-based course develops students' leadership and professional skills with the help of group and individual coaching sessions; assistance with resume reviews and applications for more senior level opportunities; and participation in seminars that address leadership development topics.

College/School

School of Business Admin.

Department

School of Business Admin

Credits

Credit Hours

Units:

1

ENG 5150 Summer Workshop

Course Info

Course Title

Summer Workshop

Course Description

Concentrated four-week workshops on literature, language, writing, and other topics of interest to high school teachers and post-baccalaureate students.

Equivalent Courses

ENG515

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
4

ENG 5200 Methods/Contexts Lit Analysis

Course Info

Course Title

Methods and Contexts of Literary Analysis

Course Description

Introduces students to prevailing disciplinary methods and situates those methods and their practice in appropriate historical, cultural, and political contexts. Formerly ENG 520.

Equivalent Courses

ENG520

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5300 Essays, Genres, and Publics

Course Info

Course Title

Essays, Genres, and Publics

Course Description

Studies in advanced literary-critical essay writing for specialist and generalist audiences, with a focus on genre, audience, and public engagement.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
4

ENG 5330 Critical Theory/Practice

Course Info

Course Title

Critical Theory and Practice

Course Description

Introduction to critical methodology, emphasizing practical applications. Required of all students. Formerly ENG 533.

Equivalent Courses

ENG533

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5400 Literature and Social Engageme

Course Info

Course Title

Literature and Social Engagement

Course Description

Examines the relationship between literature and social change, with focus on a specific issue, location, and/or time period to be specified by the instructor. As a part of the course, students may study and/or implement relevant practices of socially engaged scholarship.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ENG 5612 Postcolonial Literature

Course Info

Course Title

Postcolonial Literature

Course Description

Postcolonial literature and theory from its origins to the present. May include works from Africa, Southeast Asia, the Middle East and/or the Americas. May be either written in English or studied in translation.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ENG 5710 Literature and the Environment

Course Info

Course Title

Literature and the Environment

Course Description

Studies in literature and the environment.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5810 Lit History: British Medieval

Course Info

Course Title

Literary History: British Medieval Literature

Course Description

Development of Old and Middle English literature to about 1500. Emphasis on major works from Beowulf to Chaucer and Malory.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ENG 5811 Lit Hist: Ren/Early Mod Brit

Course Info

Course Title

Literary History: Renaissance/Early Modern British

Course Description

Literature from 1500 to 1600 with emphasis on forms such as sonnet, lyric, drama, prose and epic and major authors such as Sidney, Donne, Shakespear and Milton.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ENG 5813 Lit Hist:British Romanticism

Course Info

Course Title

Literary History: British Romanticism

Course Description

Prose and poetry from the age of Austen, Black, Wordsworth, Bryon, Shelley and Keats.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ENG 5812 Lit Hist:Restor & 18th C Brit

Course Info

Course Title

Literary History: Restoration & 18th Century British

Course Description

Prose, poetry and drama from 1660 to Romantic Revolution, with emphasis on major authors such as Dryden, Swift, Pope and Johnson.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5814 Lit. History: Victorian

Course Info

Course Title

Literary History: Victorian

Course Description

Victorian Period poetry, prose, drama and fiction. Authors may include Bronte, Tennyson, Browning, Dickens, Eliot, Hardy, Arnold, Carlyle and Rossetti.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5816 Lit History: Postcolonial

Course Info

Course Title

Literary History: Postcolonial Literature

Course Description

Postcolonial literature and theory from its origins to the present. May include works from Africa, Southeast Asia, the Middle East and/or the Americas. May be either written in English or studied in translation.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5815 Lit Hist: Early American Lit

Course Info

Course Description

Victorian Period poetry, prose, drama and fiction. Authors may include Bronte, Tennyson, Drowning, Dickens, Eliot, Hardy, Arnold, Carlyle and Rossetti.

College/School

College of Arts and Sciences

Department

ENG

Credits

Credit Hours

Units:

4

ENG 5820 Lit Hist: Early American Lit

Course Info

Course Title

Literary History: Early American Literature

Course Description

Studies in colonial and early national American literature, with emphasis on writers such as Bradstreet, Taylor, Edwards and Franklin.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5821 Lit Hist:American 19th Century

Course Info

Course Title

Literary History: American 19th Century

Course Description

Studies in American prose and poetry of the pre-Civil War and Civil War Period with emphasis on Emerson, Hawthorne, Thoreau, Whitman, Twain, James and Dickinson

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5823 Lit Hist:American Post WWII

Course Info

Course Title

Literary History: American Post World War II

Course Description

Studies in Post WWII American Literature

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5822 Lit Hist:American 20th Century

Course Info

Course Title

Literary History: American 20th Century

Course Description

Studies in American Literature of the modern period.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 5900 Topics Literature/Language

Course Info

Course Title

Topics in Literature and Language

Course Description

Special topics and problems selected by the instructor. Not a core course.

Equivalent Courses

ENG500

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ENG 5904 Literary Kinds: Fiction

Course Info

Course Title

Literary Kinds: Fiction

Course Description

Studies of the novel and/or shorter fiction, including definitions of the form and attention to variations among different examples of the form. Formerly ENG 563.

Equivalent Courses

ENG563

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

ENG 5905 Literary Kinds: Drama

Course Info

Course Title

Literary Kinds: Drama

Course Description

Studies of drama including definitions of the form and attention to variations among different examples of the form. Formerly ENG 564.

Equivalent Courses

ENG564

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

ENG 5906 Literary Kinds: Poetry

Course Info

Course Title

Literary Kinds: Poetry

Course Description

Studies of poetry including definitions of the form and attention to variations among different examples of the form. Formerly ENG 565.

Equivalent Courses

ENG565

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

ENG 5907 Modes or Special Forms

Course Info

Course Title

Literary Kinds: Modes or Special Forms

Course Description

Studies of a particular mode (such as comedy, tragedy, satire, romance) or of an approach to literature through modes; or studies of another form such as film, biography, nonfictional prose and folklore. Formerly ENG 566.

Equivalent Courses

ENG566

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

2

Maximum Hours

12

ENG 6900 Studies in Language/
Literature

Course Info

Course Title

Seminar: Studies in Language and Literature

Course Description

Special topics and problems as selected by instructor. Student must have completed the literary studies core. Formerly ENG 600.

Equivalent Courses

ENG600

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

2

Maximum Hours

99

ENG 6910 Seminar: Studies/ Lit. Theory

Course Info

Course Title

Seminar: Studies in Literary Theory

Course Description

Studies in a selected literary theory or theories and its application, as determined by the instructor. (4 credits) Prerequisite(s): Graduate standing and completion of at least two courses at the 5000-level.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ENG 6944 Seminar: 18th Century Lit

Course Info

Course Title

Seminar: Studies in 18th Century Literature

Course Description

Special topics and problems as selected by instructor.

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 6948 Literary Theory

Course Info

Course Title

Seminar: Studies in Literary Theory

Course Description

Special topics and problems as selected by instructor. Student must have completed the literary studies core. Formerly ENG 648.

Equivalent Courses

ENG648

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENG 6996 The Master's Project

Course Info

Course Title

The Master's Project

Course Description

Completion of a research paper or socially-engaged project of a literary, pedagogical, or interdisciplinary nature. Student must have permission of the Graduate Program Committee. Formerly ENG 690.

Equivalent Courses

ENG690

College/School

College of Arts and Sciences

Department

English, Creative Wrtg, & Film

Credits

Credit Hours

Units:

4

ENT 5900 ST: Entrepreneurship

Course Info

Course Title

Special Topics in Entrepreneurship

Course Description

The analysis of topics of current interest in entrepreneurship. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated.

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

ENV 5520 GIS Analys for Sustainability

Course Info

Course Title

Geographic Information System Analysis for Sustainability

Course Description

Examines environmental sustainability through GIS (Geographic Information System) mapping and analysis. Sustainability topics are covered through computer lab exercises and policy case studies. Prepares students to conduct GIS analysis and evaluate the sustainability implications of public policies. *Approved Slash Course. Credit can only be earned for either ENV 5520 or ENV 4520.

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ENV 5650 Organic Geochemistry

Course Info

Course Title

Organic Geochemistry

Course Description

Organic matter geochemical transformations and biogeochemical cycles in natural systems

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

ENV 5800 Biogeochemical Cycling

Course Info

Course Title

Biogeochemical Cycling

Course Description

Nutrient cycle, environmental contamination, remediation, sustainable agriculture, land use and management. ENV 5800 is cross listed with undergraduate course ENV 4800. Student cannot receive credit for both courses. Formerly ENV 580.

Equivalent Courses

ENV580

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

ENV 5850 Environmental Fate & Transport

Course Info

Course Title

Environmental Fate and Transport

Course Description

Distribution and transformation of chemical pollutants in air, water and soil. Topics include chemical equilibrium and mass transport processes, biotic and abiotic transformations, hydrology, and physiochemical properties of chemical pollutants that affect transport, accumulation and degradation. ENV 5850 is cross listed with undergraduate course ENV 4850. Student cannot receive credit for both courses. Formerly ENV 585.

Equivalent Courses

ENV585

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

3

ENV 5860 Toxic Substance Control

Course Info

Course Title

Toxic Substance Control

Course Description

Quantification and management of toxic substances, including production, use, distribution, exposure and control. Risk assessment and regulatory strategies will be emphasized. ENV 5860 is cross listed with undergraduate course ENV 4860. Student cannot receive credit for both courses. Formerly ENV 586.

Equivalent Courses

ENV586

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

ENV 5870 Natural Resource Management

Course Info

Course Title

Natural Resources Management: Exploration, Exploitation, Contamination and Remediation

Course Description

Oil, gas and metallic ore exploration and exploitation. Contamination issues and remediation strategies. Special emphasis on real data analysis. Students will produce and present a comprehensive management plan production based on these data. ENV 5870 is cross listed with undergraduate course ENV 4870. Student cannot receive credit for both courses.

Equivalent Courses

ENV587

College/School

College of Arts and Sciences

Department

Chemistry

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ENV 5900 Topics in Environmental Scienc

Course Info

Course Title
Special Topics in Environmental Science

Course Description
Selected topics in environmental science. May be repeated for additional credit under different subtitle.

College/School
College of Arts and Sciences

Department
Chemistry

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ESL 5590 English Instr Purposes

Course Info

Course Title
English for Instructional Purposes

Course Description
For non-native speakers only. Designed for international students who will be teaching assistants. Emphasis on improving presentation skills, particularly pronunciation, and on addressing issues relevant to student-teacher interaction. (Formerly ESL 090)Prerequisite(s): Graduate assistantship and (ESL 080 or ESL 1580) with a grade of (B-) or higher or placement.

Equivalent Courses
ESL090

College/School
College of Arts and Sciences

Department
English as a Second Language

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

ESL 5592 Rsrch Paper Thes Wri Grad Stud

Course Info

Course Title

Research Papers and Thesis Writing for Graduate Students

Course Description

For non-native speakers only. Designed to aid graduate students with the tasks of writing substantive research papers or theses. (Formerly ESL 092)Prerequisite(s): graduate student standing and (ESL 082 or ESL 1582) with a grade of (B-) or higher or placement.

Equivalent Courses

ESL092

College/School

College of Arts and Sciences

Department

English as a Second Language

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

EST 5105 Highly Effective Instructor

Course Info

Course Title

Teacher Leader as Highly Effective Instructor

Course Description

Begins the process of Teacher Leaders inquiring into their own practice - a thread that will follow through a number of courses in the program. Teacher Leaders know themselves as instructional practitioners, know their students as learners, and plan instruction accordingly. Student must be admitted into the Master of Education in teacher leadership degree program.

Equivalent Courses

EST517

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

EST 5115 Collaborative Practitioner

Course Info

Course Title

Teacher Leader as Collaborative Practitioner

Course Description

Engages students in the process of collaborative interaction with colleagues with the focus on instructional design, peer coaching, continued reflection through self-study and introductory exploration of the action research process. Prerequisite: EST 5105.

Equivalent Courses

EST518

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

EST 5120 Visual Culture/Theories Art Ed

Course Info

Course Title

Visual Culture: Theories in Art Education

Course Description

Intended for persons already holding a professional baccalaureate (BFA), Master's degree in ART (MFA), or an undergraduate art major equivalent. It is the first course in a sequence of courses providing pedagogical content knowledge and experiences leading to a Master's degree in Education with a K-12 art education endorsement. EST 5120 will meet with AED 4120, the undergraduate art education methods course. Additional requirements for EST 5120 include increased analysis and discussion expectations, individual presentations and a final synthesis paper. A student receiving credit for AED 4120 under most circumstances may not receive credit for EST 5120. Prerequisite: BFA, MFA or equivalent coursework constituting an undergraduate degree in Art.

Equivalent Courses

EST501

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

EST 5220 Teaching Art/Elementary School

Course Info

Course Title

Teaching Art in the Elementary School

Course Description

Intended for persons already holding a professional baccalaureate (BFA), Master's degree in Art (MFA), or an undergraduate art major equivalent. It is the second course in a 12-credit hour sequence of courses providing pedagogical content knowledge and experiences leading to a Master's degree in Education with a K-12 art education endorsement. EST 5220 will meet with AED 4220, the undergraduate elementary art education methods course. Additional requirements for EST 5220 include increased analysis and discussion expectations, a performance portfolio and a research paper. A student receiving credit for AED 4220 under most circumstances may not receive credit for EST 5220. Prerequisite: BFA, MFA or equivalent coursework constituting an undergraduate degree in Art.

Equivalent Courses

EST502

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5221 Teaching Art/Middle School

Course Info

Course Title

Teaching Art in the Middle School

Course Description

Intended for persons already holding a professional baccalaureate (BFA), Master's degree in Art (MFA), or an undergraduate art major equivalent. It is the third course in a 12-credit hour sequence of courses providing pedagogical content knowledge and experiences leading to a Master's degree in Education with a K-12 art education endorsement. EST 5221 will meet with AED 4221, the undergraduate middle school art education methods course. Additional requirements for EST 5221 include increased analysis and discussion expectations, individual presentations and grading differentials for course requirements. A student receiving credit for AED 4221 under most circumstances may not receive credit for EST 5221. Prerequisite: BFA, MFA or equivalent coursework constituting an undergraduate degree in Art.

Equivalent Courses

EST503

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

EST 5240 Foreign Lang Tch Mthds/K-8

Course Info

Course Title

Foreign Language Teaching Methods in Elementary and Middle School

Course Description

This class addresses theories, learning styles, multicultural and value issues, ACTFL's Standards for Foreign Language Learning, classroom management, professional growth and other topics of interest suggested by class members. Through examination of these conceptual frameworks students will understand that the foreign language classroom fosters creative and communicative language practices.

Equivalent Courses

EST510

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EST 5241 Frgn Lng Tch Methods/7-12

Course Info

Course Title

Foreign Language Teaching Methods in the Jr. High and the High School

Course Description

This class addresses theories, learning styles, multicultural and value issues, ACTFL's Standards for Foreign Language Learning, classroom management, professional growth and other topics of interest suggested by class members. Through examination of these conceptual frameworks students will understand that the foreign language classroom fosters creative and communicative language practices.

Equivalent Courses

EST511

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

EST 5301 Soc Theories/Ed/Cross National

Course Info

Course Title

Social Theories of Education in Cross-national Contexts

Course Description

This seminar explores influential ideas from postmodernism, post-structuralism, feminism, critical race theory, educational sociology, globalization studies, and post-colonialism, with a focus on their varied understandings of the ways in which educational phenomenon here and across the globe are deeply rooted in questions of power, resource distribution, inequality, and cultural identity.

Equivalent Courses

EST520

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EST 5302 Cross National Inv/Ed Systems

Course Info

Course Title

Cross National Investigations into Educational Systems and Practices

Course Description

This course examines educational systems and educational practices through the lenses of culture, societal organization, economic conditions, and historical circumstance. It provides international perspectives on U.S. education. It considers how educational practices change and adapt across cultures, locations and nations.

Equivalent Courses

EST521

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EST 5303 Gender Socialization/Schools

Course Info

Course Title

Gender Socialization in Schools

Course Description

Provides an understanding of the role gender plays in teaching and learning, with emphasis upon the socialization of students in schools. Assists prospective and current teachers, counselors, parents and others in designing programs that reduce gender bias in our educational system. Student must be admitted to the Elementary Education program or the Women's Studies program or meet the prerequisite (EST 601).

Equivalent Courses

EST581

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

EST 5304 Sexual Orientation/Gend ID/ED

Course Info

Course Title

Sexual Orientation, Gender Identity and Education

Course Description

Students will examine the intersections of sexual orientation, gender identity and education from multiple perspectives. They will analyze current law and educational policy as it relates to lesbian, gay, bisexual and transgender (LGBT) students and families. EST 582 introduces essentialist and constructivist concepts of sexuality. Immersion Through Service project required for 3-4 credits.

Equivalent Courses

EST582

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

EST 5308 Trends/Practices Mid Level Ed

Course Info

Course Title

Trends and Practices in Middle Level Education

Course Description

Provides an understanding of organizational structures and instructional strategies appropriate for middle level schools. Examines and provides practical application for interdisciplinary teaming, scheduling, advisory, integrated instruction and grouping strategies that are developmentally appropriate for early adolescents. Student must meet the prerequisite (EST 603).

Equivalent Courses

CIL553, EST590

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5309 Middle Level Schools

Course Info

Course Title

Middle Level Schools

Course Description

Studies all aspects of the emerging middle school, including organizational patterns, curriculum, psychological factors, philosophical bases and methodologies. Provides in-depth analysis of the relationship to contemporary education, social and student needs. Student must meet the prerequisites (EST 601 and EST 602).

Equivalent Courses

CIL583, EST591

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

EST 5310 Crisis Interv Prvn Self Harm

Course Info

Course Title

Crisis Intervention and Prevention of Self Harm

Course Description

This course addresses the need for caregivers to develop the knowledge, skills, and conceptual understandings of the public health approach to crisis intervention and the prevention of self harm. This course develops caregiver competencies such as recognizing warning signs of suicidal behavior and the use of referral skills.

Equivalent Courses

EST541

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5320 Teaching Art/Secondary Level

Course Info

Course Title

Teaching Art at the Secondary Level

Course Description

Intended for persons already holding a professional baccalaureate (BFA), Master's degree in Art (MFA), or an undergraduate art major equivalent. It is the final course in a 12-credit hour sequence of courses providing pedagogical content knowledge and experiences leading to a Master's Degree in Education with a K-12 art education endorsement. EST 5320 will meet with AED 4320, the undergraduate secondary level art education methods course. Additional requirements for EST 5320 include increased analysis and discussion expectations, individual presentations, a research project and grading differentials for course requirements. A student receiving credit for AED 4320 under most circumstances may not receive credit for EST 5320. Prerequisite: BFA, MFA or equivalent coursework constituting an undergraduate degree in art.

Equivalent Courses

EST504

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5321 The Art of Children's Books

Course Info

Course Title

The Art of Children's Books

Course Description

This course will provide students with an understanding of the process and joy of both writing and illustration of children's books. Each day, aspects of visual arts education will be explored and the aesthetic of children's book illustrations examined as students meet contemporary authors and illustrators.

Equivalent Courses

EST505

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	4

EST 5330 Diagnosis/Remediation Math

Course Info

Course Title

Diagnosis and Remediation in Mathematics

Course Description

Guides elementary teachers to acquiring skills for determining children's basic mathematics instructional levels, diagnosing learning difficulties and designing instruction for remediation and follow-up procedures.

Equivalent Courses

CIL615, EST532

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

EST 5331 Exploring Math/Sci Connections

Course Info

Course Title

Exploring Mathematics and Science Connections

Course Description

This course is designed to involve elementary and middle level teachers in developing and implementing research-based methods for integrating mathematics and science. Participants will learn important mathematics and science content as they enhance their knowledge, skills, and conceptual understandings. Approximately 50% of this course is taught through online instruction.

Equivalent Courses

EST563

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5360 Outdoor/Environmental Ed

Course Info

Course Title

Outdoor and Environmental Education

Course Description

Studies methods, materials, and sites for education in, for and about the outdoors. Topics may include field ecology studies (K-12), bringing the outdoors planning outdoor/environmental education programs, backpacking, and family camping. Field trips are included. Additional fees are possible.

Equivalent Courses

CIL506, EST561

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

EST 5361 Science and Children

Course Info

Course Title

Science and Children

Course Description

This course is designed to develop research-based philosophies, rationale, and methods for teaching elementary and middle school science. Participants will have an opportunity to enhance their knowledge, skills and conceptual understanding relative to curriculum and instructional planning, instructional models, curriculum integration, use of instructional resources/materials, classroom management and assessment.

Equivalent Courses

CIL505, EST560

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5362 Teaching Science/Young Children

Course Info

Course Title

Teaching Science to Young Children

Course Description

Develops philosophies, rationale and methods for teaching science to young children. Explores knowledge and skills for planning instruction, using instructional models appropriate for young children, integrating the curriculum, using current instructional materials and evaluating outcomes. This is an online course with three required class meetings on campus.

Equivalent Courses

EST562

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 5919 The International Experience

Course Info

Course Title

The International Experience

Course Description

Involves educators in a field experience team-teaching with a classroom teacher or interning with a building principal. Compares educational systems through pre- and post-seminars, independent readings, and reflective journal entries. Requires a follow-up action project in the local school setting. This is a minimum two-term course currently offered only in New Zealand; enrollment typically is in summer; completion is in fall or winter semester. Student must be an M.Ed. student in Teacher Development and Educational Studies.

Equivalent Courses

CIL551, EST570

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

EST 6000 Intro to Educational Studies

Course Info

Course Title

Introduction to Educational Studies

Course Description

Investigates current education research, technology and instructional techniques and methods of implementing them in effective teaching and leadership practices. Must be taken as first course in M.Ed. in Educational Studies program. Student must be admitted to the M.Ed. in Educational Studies, the MAT in Elementary Education, or the MAT in Secondary Education.

Equivalent Courses

CIL510, EST601

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

EST 6100 Diverse Learners/Curriculum

Course Info

Course Title

Diverse Learners and the Curriculum

Course Description

Examines the social and cultural context of schooling; focuses upon school organization and policies; curricular and instructional issues related to educational opportunity and equity for a wide range of diverse learners. Encourages graduate students to self-reflect and examine topics related to education, cultural diversity, curriculum and teaching. Student must meet the prerequisite (EST 601).

Equivalent Courses

CIL509, EST602

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

EST 6105 Action Research-Classroom

Course Info

Course Title

Action Research in Your Classroom

Course Description

The two-course action research sequence provides Teacher Leaders with the knowledge and skill needed to design, implement, and lead action research projects at the classroom and building levels. Prerequisites: EST 5105, EL 5100, EST 5115, EL 6100, EST 6115, EL 5110.

Equivalent Courses

EST617

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

EST 6115 Action Research-School

Course Info

Course Title

Action Research in Your School

Course Description

The two-course action research sequence provides Teacher Leaders with the knowledge and skill needed to design, implement, and lead action research projects at the classroom and building levels.
Prerequisite: EST 5105, EL 5100, EST 5115, EL 6100.

Equivalent Courses

EST618

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
3

EST 6118 Reflective Practitioner

Course Info

Course Title

Reflective Practitioner

Course Description

Investigates the current practices and theories of teaching and leadership and develops teachers' knowledge and skills to help build exemplary teaching practices and leadership capacity. Student must be admitted to M.Ed. program in teacher leadership.

Equivalent Courses

EST662

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code

NR

EST 6125 Ldrshp Professional Learning

Course Info

Course Title

Leadership for Professional Learning

Course Description

This course is a capstone experience of the entire Teacher Leadership program. Students will use the skills gained throughout the program to create a final project that will be presented to a professional audience. This course will coach students in quality presentation skills, consultation, and acquisition. Prerequisites: EST 5105, EL 5100, EST 5115, EL 6100, EST 6115, EL 5110, EST 6105, EL 6110.

Equivalent Courses

EST619

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

EST 6128 Collaborative Inquiry I

Course Info

Course Title

Collaborative Inquiry I

Course Description

Provides students with knowledge and skills with the use of data and collaborative action research for increased student achievement. Student must be admitted to the M.Ed. program in teacher leadership.

Equivalent Courses

EST663

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EST 6200 Teachers and the Curriculum

Course Info

Course Title

Teachers and the Curriculum

Course Description

Provides a broad introduction to curriculum as a special area of study and the issues and problems of practice that engage curriculum scholars, teachers and teacher educators. Critical questions and issues that extend across K-12 grade levels, subject areas, and educational settings are examined. Student must meet the prerequisite (EST 601).

Equivalent Courses

CIL512, EST603

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 6218 Collaborative Practitioner

Course Info

Course Title

Collaborative Practitioner

Course Description

Focuses on the development of ideas, expertise, and relationships that improve teaching and learning in K-12 student-centered educational environments. Student must meet prerequisites (EST 662 and EST 663).

Equivalent Courses

EST664

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EST 6228 Collaborative Inquiry II

Course Info

Course Title

Collaborative Inquiry II

Course Description

Develops knowledge and skills using data and research to improve instruction emphasizing the use of action research and digital learning while making practice public. Student must meet prerequisites (EST 662 and EST 663).

Equivalent Courses

EST665

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EST 6300 Advanced Instructional Design

Course Info

Course Title

Advanced Instructional Design

Course Description

Studies the basic elements of curriculum design and ways of planning, organizing and implementing new curricula at the elementary, middle and secondary school levels. Student must meet prerequisites (EST 601 and EST 603).

Equivalent Courses

CIL554, EST604

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

EST 6301 Soc Theories/Ed/Cross National

Course Info

Course Title

Social Theories of Education in Cross-National Context

Course Description

This seminar explores influential ideas from post-modernism, post-structuralism, feminism, critical race theory, educational sociology, globalization studies, and post-colonialism, with a focus on their varied understandings of the ways in which educational phenomenon here and across the globe are deeply rooted in questions of power, resource distribution, inequality, and cultural identity.

Equivalent Courses

EST620

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

EST 6302 Gender Socialization in School

Course Info

Course Title

Gender Socialization in the Schools

Course Description

Provides an understanding of the role that gender plays in teaching and learning, with emphasis on the gender socialization of students in learning environments from pre-school to graduate school. Assists prospective teachers, parents and others in designing programs that reduce gender bias in the educational system. Student must be admitted to the Elementary Education program or Women's Studies program or meet the prerequisite (EST 601).

Equivalent Courses

CIL561, EST630

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
1

Credit Hours
Max:
4

EST 6303 Metro Detroit Youth Studies

Course Info

Course Title

Metropolitan Detroit Youth Studies Seminar

Course Description

This seminar explores and conceptualizes marginalized youth in metropolitan Detroit. Participants examine ethnographic accounts of everyday life, investigate the structural and discursive contexts of youth experience, and interact with innovative youth organizations. Themes include youth identity; race, class, gender, sexuality, and nation; and the impact of global and urban restructuring.

Equivalent Courses

EST631

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

8

EST 6304 Issues in Education

Course Info

Course Title

Issues in Education

Course Description

Studies current issues impacting on the organization, administration and environment of schools. May be taken more than once, but for no more than a total of 6 credits. Student must have permission of adviser.

Equivalent Courses

CIL611, EST651

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

1

Credit Hours

Max:

6

EST 6305 Applied Theory/Tchr Ldrship I

Course Info

Course Title

Applied Theory of Teacher Leadership I

Course Description

Focuses on designing a field project for meeting the unique needs in a school or district, and carrying out the planned activity in a leadership role. Provides an opportunity for an alternative, scholarly, leadership pursuit. Student must meet prerequisites (EST 662, EST 663, EST 664, EST 665 and EST 666).

Equivalent Courses

EST667

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EST 6318 Inquiry to Practice I

Course Info

Course Title

Inquiry to Practice I

Course Description

Focuses on categories of student-centered technologically integrated instructional strategies as well as an overview of emerging technologies and their impact on teaching and learning. Student must meet prerequisites (EST 662, EST 663, EST 664, and EST 665).

Equivalent Courses

EST666

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EST 6361 Beekeeping Across Curriculum

Course Info

Course Title
Integrating Beekeeping Across the Curriculum

Course Description
Within curriculum theory exist models of curriculum integration used to integrate honey bee biology and habitat, beehive management and safety issues, pest management, the importance of honeybees to the human food system, natural environment and culture across K-16 curriculum while aligning local, state and/or national standards. On-site apiary learning is required. Oakland University Hold Harmless Waiver is required prior to enrollment. Physician's Plan for administering epinephrine is required prior to entering the apiary.

Equivalent Courses
EST643

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
3	4

Repeat Rules

Repeat Status Code
NR

EST 6500 Collaborative Action Research

Course Info

Course Title
Collaborative Action Research

Course Description
Informs practitioners and develops their skills in the use of qualitative and quantitative research to identify best practices and improve their practice at the classroom and school levels. Collaborative, systemic inquiry using the basic principles of research will be used to empower professionals as teachers and leaders. Must be taken for at least four credits if enrolled in the M.Ed. Program. Student must meet prerequisites (EST 6000, EST 6100, EST 6200, EST 6300).

Equivalent Courses
EST609

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	6

EST 6970 Spec Studies Tchr Dev/Ed
Stds

Course Info

Course Title

Special Studies in Teacher Development and Educational Studies

Course Description

Pursues directed readings or independent study of topics related to curriculum, instruction or educational studies. May be taken more than once, but for no more than a total of 8 credits. Student must be admitted to the M.Ed. in educational studies or have permission of the Chair of the Department of Teacher Development and Educational Studies.

Equivalent Courses

CIL590, EST650

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

EST 7008 Thry/Practice Adult Lrng/
Devel

Course Info

Course Title

Theory and Practice in Adult Learning and Development

Course Description

Informs practitioners and develops their skills in the use of adult learning and development theory to facilitate learning in college contexts.

Equivalent Courses

EST701

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code
NR

Maximum Hours
4

EXS 535P Health-Promoting Choices

Course Info

College/School

School of Health Sciences

Department

EXS

Credits

Credit Hours

Units:

4

EXS 5000 Introduction To Research

Course Info

Course Title

Introduction to Research

Course Description

An introductory graduate-level course in research methods for students pursuing graduate degrees in the health sciences. Topics include: scientific method, ethics, research design, interpretation of existing research, statistical concepts, computer resources, conceptualization of research problems, instrumentation and proposal preparation and presentation. Offered fall semester. Formerly EXS 500. Prerequisite: STA 2220 and have graduate status.

Equivalent Courses

EXS500

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

EXS 5010 Advanced Exercise Physiology

Course Info

Course Title

Advanced Exercise Physiology

Course Description

This course emphasizes the incorporation of recent advances in biological research with the study of exercise. Topics include: morphological, biochemical and physiological responses to both acute and chronic exercise; mechanisms in metabolic control; hormonal, renal and digestive factors in exercise; and the relationships between exercise and cardiovascular disease. Offered fall semester. Formerly EXS 520. Prerequisites: BIO 3232 or CHM 2010 and EXS 3010 or have permission of instructor.

Equivalent Courses

EXS520

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

EXS 5020 Advanced Biomechanics

Course Info

Course Title

Advanced Biomechanics

Course Description

This course emphasizes the principles of mechanics applied to human movement. Students learn the principles of applied kinesiology for the analysis of exercise, gait and physical activity in recreational and occupational settings. Qualitative and quantitative techniques for human motion analysis are presented. Formerly EXS 525, EXS 525C. Student must meet the prerequisite (EXS 350 or EXS 3020).

Equivalent Courses

EXS525

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

EXS 5030 Diagnostic Test/Exs Prescript

Course Info

Course Title

Diagnostic Testing and Exercise Prescription

Course Description

Course content emphasizes stress testing procedures and techniques for exercise prescription, including basic concepts in electro-cardiography. Students completing this course should be able to make clinical assessments regarding ECG information and, under faculty supervision, will be responsible for implementing a program of exercise rehabilitation for cardiac patients. Offered winter semester. Formerly EXS 530, EXS 530C. Prerequisites: EXS 3010 and EXS 5010 or have permission of instructor.

Equivalent Courses

EXS530, EXS530P

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

EXS 5040 Nutrition/Weight Mgt/ Exercise

Course Info

Course Title

Nutrition, Weight Management and Exercise

Course Description

This course emphasizes basic concepts in nutrition as applied to exercise, physical training, health improvement and cardiac rehabilitation. Topics are related to the importance of food nutrients in sustaining physical function during moderate to severe physical activity, the energy value of foods and the relationships between nutrition, fitness and health. Offered winter semester. Formerly EXS 540. Prerequisites: BIO 3232 or CHM 2010 and EXS 3010 or have permission of instructor.

Equivalent Courses

EXS540

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5100 Intro to Personal Training

Course Info

Course Title

Introduction to Personal Training

Course Description

An introduction to the concepts used in personal training. Covers theoretical knowledge and practical skills needed to prepare for a national certification exam in personal training. Topics include exercise testing, prescription, and leading, progression, individualization, goal setting, logistics, client motivation, safety, health promoting behaviors and effective communication. This course is cross listed with an undergraduate course (EXS 4100). Credit will be awarded for only one of EXS 470, EXS 4100, EXS 570, EXS 5100. Formerly EXS 570.

Equivalent Courses

EXS570

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5110 Advanced Personal Training

Course Info

Course Title

Advanced Personal Training

Course Description

Theoretical knowledge and practical skills in advanced personal training including training for special cases: high-performance athletes, musculoskeletal injuries, wheel-chair bound clients, chronic diseases, the elderly, and children. Periodization, plyometrics, exercise with specialized equipment, innovative use of available resources, and best practices for commercial success also covered. This course is cross listed with an undergraduate course (EXS 4110). Credit will be awarded for only one of EXS 475, EXS 4110, EXS 575 or EXS 5110. Offered Summer semester. Formerly EXS 575. Prerequisite: EXS 5100.

Equivalent Courses

EXS575

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5200 Physical Activity & Aging

Course Info

Course Title

Physical Activity and Aging

Course Description

This course examines the effects of aging on physical work capacity, body composition, and cardiovascular, pulmonary, neuromuscular and musculoskeletal function. Retardation of the aging process through the use of physical conditioning programs is presented, and principles for prescribing and conducting exercise programs are included. Offered summer semester. Formerly EXS 545. Prerequisites (EXS 3010 and EXS 3020) and have permission of instructor.

Equivalent Courses

EXS545

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5210 Children & Exercise

Course Info

Course Title

Children and Exercise

Course Description

Physical activity and the growth, maturation, motor development and motor learning of children from birth to adolescence. Skill and performance enhancement, exercise program design, biomechanics, and injury and disease prevention are discussed. Formerly EXS 550. This course is cross listed with an undergraduate course (EXS 4210). Credit will not be received for more than one of EXS 450, EXS 4210, EXS 550, EXS 5210. Offered summer semester in odd-numbered years. Prerequisites: EXS 3010 and EXS 3020.

Equivalent Courses

EXS550

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5300 Human Performance Enhancement

Course Info

Course Title

Human Performance Enhancement

Course Description

Advanced topics and trends in modern strength and conditioning program design and implementation. Topics include muscle physiology, neuromuscular physiology, performance profiles, periodization, and the theory behind developing adequate strength, mass, flexibility, power, and stability programs. Formerly EXS 503. This course is cross listed with an undergraduate course. Credit cannot be awarded for both EXS 4300 and EXS 5300. Prerequisite: EXS 1000 or have permission of instructor

Equivalent Courses

EXS503

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5310 Environment/Human Performance

Course Info

Course Title

Environment and Human Performance

Course Description

A multi-perspective consideration of human adaptation to major factors which can significantly influence human movement in diverse micro- and macro-environments. Factors to be considered include temperature, altitude, precipitation, light, noise and sociocultural factors. Health/safety in locomotion, rehabilitation, sport/recreation and occupational contexts are emphasized. Formerly EXS 635, EXS 536. This course is cross listed with an undergraduate course (EXS 4310). Credit will be awarded for only one of EXS 436, EXS 4310, EXS 536, EXS 5310. Prerequisites: EXS 3010 and EXS 5010 or have permission of instructor.

Equivalent Courses

EXS536, EXS635

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5400 Obesity and Physical Activity

Course Info

Course Title

Obesity and Physical Activity

Course Description

Obesity is a complex disease with myriad contributing factors. This course addresses the causes, prevention, and treatment of obesity, with particular emphasis on the role of physical activity. Metabolism, energy balance, and social, psychological, mechanical, and behavioral issues are discussed. Formerly EXS 541. This course meets with an undergraduate course (EXS 4400). Credit will be awarded for only one of EXS 541, EXS 5400, EXS 441, EXS 4400. Prerequisite: EXS 3010 or equivalent.

Equivalent Courses

EXS4400, EXS441, EXS541

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5440 Prev Nutrit Through Life Span

Course Info

Course Title

Preventative Nutrition Through the Life Span

Course Description

This course emphasizes the preventative benefits of lifestyle changes in physical activity and nutrition through the life span as they apply to the chronic degenerative diseases including diabetes, cancer and cardiovascular diseases. Formerly EXS 580. Offered spring semester in even-numbered years. Prerequisite: EXS 5040.

Equivalent Courses

EXS580

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EXS 5500 Healthy Lifestyle Choices

Course Info

Course Title

Healthy Lifestyle Choices

Course Description

This course takes a biopsychosocial approach to exercise and other healthy lifestyle choices. Focus is on the dimensions of wellness, factors influencing lifestyle choices, the theory and practice of behavior change, and health promotion concepts in clinical, community, worksite, and commercial settings. This course is cross listed with an undergraduate course (EXS 4500). Credit will not be awarded for more than one of EXS 460, EXS 4500, EXS 560, EXS 5500. Offered all semesters. Formerly EXS 560. Prerequisites: PSY 1000 and (EXS 2400 or EXS 3010 or HS 2000).

Equivalent Courses

EXS560

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5510 Stress Management

Course Info

Course Title

Stress Management

Course Description

This course examines the causes of stress and the changes that occur as a result. The physiological and psychological results of stress are investigated. Practical solutions to improving stress management that include recognition of the most common symptoms are discussed. Offered spring semester in even-numbered years. Formerly EXS 510. Student must meet the prerequisite (EXS 304 or EXS 3010).

Equivalent Courses

EXS510

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5520 Health-Promoting Choices

Course Info

Course Title

Health-Promoting Lifestyle Choices and Interventions

Course Description

Emphasizes physical aspects of health-promoting behaviors, and philosophies of primary and secondary prevention, health education and health interventions. Includes modules on health beliefs, theoretical models of health and disease behaviors, principles of behavior modification and relapse prevention, predictors and measures of intervention success, and strategies for improving adherence. Formerly EXS 535. Offered winter semester. Prerequisite: Student must have permission of instructor.

Equivalent Courses

EXS535

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

EXS 5600 Health And Disease

Course Info

Course Title

Health and Disease

Course Description

This course familiarizes the student with the pathogenesis of representative diseases and the physical changes associated with varying states of health and disease. Information from the health and medical history focus upon factors that are lifestyle related. Offered winter semester. This course is cross listed with an undergraduate course. Credit will not be awarded for more than one of EXS 405, EXS 4600, EXS 505, EXS 5600. Prerequisites: BIO 1200, BIO 2600 or have permission of instructor. Completion of BIO 2100 is recommended.

Equivalent Courses

EXS505

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5620 Clinical Biomechanics

Course Info

Course Title

Clinical Biomechanics

Course Description

This course focuses on the pathomechanics of the human musculoskeletal system. The use of exercise in rehabilitation, sports medicine and clinical settings is explored. Topics include static and dynamic properties of human tissue, mechanisms of injury, pathokinesiology in various anatomical regions, and principles of musculoskeletal exercise prescription. Formerly EXS 610, EXS 511. This course is cross listed with an undergraduate course. Credit can be awarded for only one of EXS 511, EXS 610 and EXS 5620. Prerequisite: EXS 3020 or have permission of instructor.

Equivalent Courses

EXS511, EXS610

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5630 Basic Athletic Training

Course Info

Course Title

Basic Athletic Training

Course Description

Course directed to competitive sports and the recognition and immediate care of athletic injuries. Evaluation and treatment procedures and techniques are presented and practiced. Formerly EXS 521. Offered fall and winter semesters. This course is cross listed with an undergraduate course (EXS 4630). Credit will be awarded for only one of EXS 521, EXS 5630 or EXS 4630. Prerequisites: BIO 2100 and BIO 2600 and EXS 3020.

Equivalent Courses

EXS521

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5640 Exercise Electrocardiography

Course Info

Course Title

Exercise Electrocardiography

Course Description

Explores theoretical and applied concepts of electrocardiography. Students learn basic principles of obtaining and understanding resting and exercise electrocardiograms, effects on the normal electrocardiogram and factors contributing to abnormal electrocardiography. Students experience exercise test applications of the electrocardiogram and learn to recognize life-threatening arrhythmias. Offered summer semester. Formerly EXS 625, EXS 526. This course is cross listed with an undergraduate course. Credit can be awarded for only one of EXS 625, EXS 526, EXS 5640 or EXS 4640. Prerequisite: EXS 3010 or have permission of instructor.

Equivalent Courses

EXS425, EXS426, EXS4640, EXS526, EXS625

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5650 Yoga Therapy

Course Info

Course Title

Yoga Therapy

Course Description

In this course, students will learn the fundamental principles of therapeutic yoga, as well as how and why yoga is used as a complementary therapy. Students will understand how to incorporate therapeutic yoga into health, fitness and wellness practices.

Prerequisites: Human Biology (BIO 2100), Introduction to Psychology (PSY 1000)

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

EXS 5700 Corporate/Worksite Wellness

Course Info

Course Title

Corporate and Worksite Wellness Programs

Course Description

This course explores concepts underlying corporate and worksite health promotion programs. It examines administration of these programs including: health and exercise program planning; facility planning and design; program management; staffing; equipment selection; safety and legal issues; and marketing. This course is cross listed with an undergraduate course (EXS 4700). Credit can be awarded for only one of EXS 465, EXS 4700, EXS 565, EXS 5700.

Offered spring semester. Formerly EXS 565. Prerequisite: EXS 3010 and have permission of instructor.

Equivalent Courses

EXS565

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5800 Exercise Endocrinology

Course Info

Course Title

Exercise Endocrinology

Course Description

A cellular and systems physiology approach to human hormone function during exercise. Interaction of neuro-endocrine responses during exercise and body fluid regulation, hemostasis, the immune system, regulation of fuel use, biological rhythms, reproductive cycles, analgesia, and tissue repair. Hormones as ergogenic aids. Formerly EXS 515. This course is cross listed with an undergraduate course. Credit will be awarded for only one of EXS 515, EXS 5800, or EXS 4800. Prerequisite: BIO 2600 and EXS 3010 or have permission of instructor.

Equivalent Courses

EXS515

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5810 Physical Activity Epidemiology

Course Info

Course Title

Physical Activity Epidemiology

Course Description

Explores the evolution of epidemiology and its impact on physical activity choices and guidelines. Topics will include the role of physical activity in the primary, secondary and tertiary prevention of chronic disease, mental health problems, and disability from an epidemiologic perspective. Offered summer semester. Formerly EXS 516. This course is cross listed with an undergraduate course. Credit will be awarded for only one of EXS 516, EXS 4810, or EXS 5810.

Equivalent Courses

EXS516

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 5830 Muscle Physiology

Course Info

Course Title

Muscle Physiology

Course Description

This course focuses on the basic principles and current knowledge pertaining to muscle structure and function. Topics include muscle tissue anatomy, contraction, muscle fiber types and their recruitment patterns, energy metabolism, substrate utilization, fatigue and mitochondrial adaptations. Formerly EXS 6800. Credit will not be granted for both EXS 4830 and EXS 5830. Cross-listed with EXS 4830. Offered winter semester in even-numbered years. Prerequisite: EXS 3010 or Permission of Instructor.

Equivalent Courses

EXS620, EXS6800

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

EXS 6600 Admin Cardiac Rehab/Exs Prgm

Course Info

Course Title

Administration of a Cardiac Rehabilitation or Community Exercise Program

Course Description

This course emphasizes the administrative steps necessary to establish and operate a cardiac rehabilitation or community exercise program. Staffing, facilities, equipment, budgeting, scheduling, legal liabilities and contacts with physicians, support personnel and health care centers are discussed. Formerly EXS 605. Offered summer semester. Prerequisite: EXS 5010 or have permission of instructor.

Equivalent Courses

EXS605, EXS605P

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 6700 Laboratory Instrumentation

Course Info

Course Title

Laboratory Instrumentation

Course Description

This course involves both concepts and procedures regarding the measurement of human performance, using appropriate laboratory instruments and data collection systems in the disciplines of exercise physiology and biomechanics. Students will learn proper techniques for data acquisition, equipment calibration and data interpretation for instrumentation used in exercise science. Formerly EXS 615. Offered winter semester in odd-numbered years. Prerequisites: EXS 5000 and EXS 5010 and EXS 5030.

Equivalent Courses

EXS615

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 6920 Directed Study and Research

Course Info

Course Title

Directed Study and Research

Course Description

Special study areas and research in exercise science. May be repeated for additional credit. Formerly EXS 693. Offered every semester. Prerequisite: Student must have permission of department.

Equivalent Courses

EXS693

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours
1	Max: 2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	6

EXS 6940 Seminar In Exercise Science

Course Info

Course Title

Seminar in Exercise Science

Course Description

In-depth study of often-cited, controversial or recent research articles on a topic in exercise science. Students will give oral critiques of articles and write one review paper. Formerly EXS 630. Offered spring semester in odd-numbered years. Prerequisites: EXS 5000 and EXS 5010.

Equivalent Courses

EXS630

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

EXS 6950 Exercise Science Internship I

Course Info

Course Title

Exercise Science Internship I

Course Description

Supervised internship experience in a wide variety of clinical and community settings including hospitals, clinics, corporate fitness and community sites. Offered every semester. Formerly EXS 601, EXS 601D. Prerequisites EXS 5010, EXS 5020 and EXS 5030, have permission of the department, and 20 credits of graduate study including EXS 5010, EXS 5020 and EXS 5030.

Equivalent Courses

EXS601

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

EXS 6955 Exercise Science Internship II

Course Info

Course Title

Exercise Science Internship II

Course Description

Supervised internship experience in a wide variety of clinical and community settings including hospitals, clinics, corporate fitness and community sites. Formerly EXS 602. Offered every semester. Prerequisites: EXS 5010, EXS 5020 and EXS 5030; have permission of the department; and 20 credits of graduate study including EXS 5010, EXS 5020 and EXS 5030.

Equivalent Courses

EXS602

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

EXS 6995 Research in Exercise Science

Course Info

Course Title

Research in Exercise Science

Course Description

Independent research approved by the student's faculty adviser and research committee. May be satisfied by completion of either 1) presentation of findings in a written master's thesis and oral thesis defense, or 2) written and oral comprehensive examinations to determine if the student has acquired knowledge of exercise science expected of a master's degree candidate. Formerly EXS 670B, EXS 670D, EXS 670. Offered every semester. Prerequisites: Student must have completed 20 credits of graduate study, including the prerequisite EXS 5000.

Equivalent Courses

EXS670

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours Max:
1	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	18

FE 5300 Major Theorists Ed

Course Info

Course Title

Major Theorists in Education

Course Description

Intensive study of the works of one or more major figures in the development of educational theories.

Equivalent Courses

FE503

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5301 Applied Devl Prin: Mdl Chld

Course Info

Course Title

Applied Developmental Principles: Middle Childhood

Course Description

Study of the physical, social, emotional and intellectual development of the 10- to 14-year-old child. Examines changes in body structure and function, self concept and peer group identity and sexual awareness.

Equivalent Courses

FE520

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5302 SP: Prof Issues/Practice

Course Info

Course Title

Special Problems in Professional Issues and Practices

Course Description

Problems concerning learners' needs and capacities, in formal or informal settings, are selected for study according to each student's professional experience and advancement goals. Preference is given to problems that call for understanding foundational and multi-disciplinary approaches to practices and programs. May be taken more than once for a total of 8 credits, or may be elected for independent study. Seminars may be required. Student must have permission of instructor.

Equivalent Courses

FE590

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

Repeat Rules

Repeat Status Code

RP

Maximum Hours

8

FE 5303 Ecology of the Classroom

Course Info

Course Title

Ecology of the Classroom

Course Description

Deals with the ecological context for learning in classroom, school and community. The primary task will be to describe, to analyze and to make inferences about the structure of the ecological environment. These findings will then be related to pupil learning.

Equivalent Courses

FE591

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5304 Research/Evaluation Methods

Course Info

Course Title

Foundations of Research and Evaluation Methods, Techniques and Designs

Course Description

Examination of assumptions, concepts and premises underlying various methodologies, qualitative and quantitative techniques and strategies, types of evidence and relations between goals and methods. Applications will be undertaken in relation to students' professional experience and plans for study. Student must have permission of instructor.

Equivalent Courses

FE592

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5305 Wkshp in Prof Prob and Pract

Course Info

Course Title

Workshop in Professional Problems and Practices

Course Description

Provides an opportunity for professional staff in education to develop competency in new practices or to adapt certain teaching skills to different subjects or age groups. Is offered under different topics based upon current needs identified or requested by professional educators. May be taken more than once for a maximum of 8 credits. May be applied toward degree program only with permission of adviser. Graded Satisfactory/Unsatisfactory. Student must have experience as a professional educator.

Equivalent Courses

FE599

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

1

Credit Hours

Max:

8

Repeat Rules

Maximum Hours

8

FE 5306 History in Education

Course Info

Course Title

History in Education

Course Description

Study of the historical development of educational institutions in Western society, emphasizing one or more of the following themes: teaching as a profession; changing conceptions of the student-teacher relationship; the learning process.

Equivalent Courses

FE601

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5307 Philosophy in Education

Course Info

Course Title

Philosophy in Education

Course Description

Study of philosophical issues in education and their relevance to the personal and professional lives of teachers, emphasizing one or more of the following themes: knowledge and values; human nature and teaching; moral education; nature of the child.

Equivalent Courses

FE602

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5308 Cross-Cultural Studies in Ed

Course Info

Course Title

Cross-Cultural Studies in Education

Course Description

Explorations into the problems created by ethnocentricity within education and the effects of cultural currents on educational development, emphasizing one or more of the following themes: learning; cognition; development; school-community relations; school policy and cultural pluralism; international education policies; current issues.

Equivalent Courses

FE603

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5309 Sociology in Education

Course Info

Course Title

Sociology in Education

Course Description

Study of schools as social systems, the environmental effect of schools on students and teachers, and the impact of schooling on American society, emphasizing one or more of the following themes; sociological implications of work; social norms and schooling; cultural pluralism; educational alternatives and social change.

Equivalent Courses

FE604

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5310 Politics in Education

Course Info

Course Title

Politics in Education

Course Description

Study of political issues in education and the theory and practice of politics in schools, emphasizing one or more of the following themes: legal, human and civil rights in education; equal educational opportunity; national educational policy; justice and education.

Equivalent Courses

FE605

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5311 Psychology in Education

Course Info

Course Title

Psychology in Education

Course Description

Study of the developing person throughout the life cycle. Topics include self, mind, intelligence, cognition, meaning awareness, feeling, competence and creativity. The person is studied in the context of social and cultural processes.

Equivalent Courses

FE606

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5312 Philosophy for Children

Course Info

Course Title

Philosophy for Children

Course Description

Development of basic reasoning skills within a coherent, tested curriculum. Appropriate for social studies, language arts, science or gifted instruction in grades 5-8. Requires permission of school principal to purchase student books and teach curriculum two hours/week for 30 weeks.

Equivalent Courses

FE608

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

FE 5313 Issues in Social Foundations

Course Info

Course Title

Issues in Social Foundations

Course Description

Study of enduring issues that reflect social values and controversies with historical roots. Examination of cultural assumptions and implications for formal and informal education processes.

Equivalent Courses

FE611

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5314 Change Models in Education

Course Info

Course Title

Change Models in Education

Course Description

Examines one or more key perspectives on evaluation and change within schools and other educational settings. Theories of change, educational reform movements and approaches to educational innovation are studied.

Equivalent Courses

FE660

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 5400 Learning Models

Course Info

Course Title

Learning Models

Course Description

An overview of theories of learning including cognitive, social, ecological and phenomenological approaches as they relate to learning in a variety of settings and at several developmental levels. The student will examine applications of these theories in various strategic learning environments and educational programs. Student must meet prerequisite or have permission of instructor.

Equivalent Courses

FE680

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

FE 5996 Development/Variability/
Learnng

Course Info

Course Title

Child Development, Variability and Learning

Course Description

Development and stage theories of cognition and learning behavior, examined through research accounts of physical and mental variability, cultural background, social circumstances, lived experience, learning style and mode of educational interactivity.

Equivalent Courses

FE506

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FE 6970 Ind Stdy: Educatnl Foundation

Course Info

Course Title

Independent Study in Educational Foundations

Course Description

Students conduct an in-depth study on a topic in educational foundations with supervision by a faculty member.

Equivalent Courses

FE750

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

FE 6996 Terminal Project

Course Info

Course Title

Terminal Project

Course Description

Planning and execution of significant research or project in accordance with student's advisory committee. Student must be admitted to a graduate program and have written approval of student's advisory committee. Student should request such approval from adviser early in the fall semester for registration in the winter semester and early in the winter semester for registration in spring, summer or fall. Student must present the completed project at least two weeks before the end of classes in the semester of graduation.

Equivalent Courses

FE699

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

FIN 5250 Financial Derivatives

Course Info

Course Title

Financial Derivates

Course Description

This course will introduce students to derivatives such as forwards, futures, swaps, and options. Students will learn the main features of the most commonly used financial derivatives and will understand how to use them to achieve various hedging and speculating objectives. Students will also be introduced to various frameworks for pricing derivatives, and study several applications of derivative-pricing techniques outside derivative markets. The course also focuses on understanding and quantifying credit risk, and consider the leading approaches to managing this risk. We discuss the importance of loan sales and securitization, asset-backed securities (ABS), and discuss events that led to the last financial crisis. FIN 5250 equivalent to FIN 6250 - cannot receive credit for both courses. Cross Listing: FIN 5250 is crosslisted with FIN 4250 - students cannot receive credit for both coursesPrerequisites: FIN 5330 (or have completed a course in financial management) & FIN 5600

Equivalent Courses

FIN6250

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

FIN 5330 Financial Management

Course Info

Course Title
Financial Management

Course Description
Introduction to the institutions, instruments, theories and analytical tools of financial management. Emphasis is placed on return versus risk valuation tradeoff. Topics include capital budgeting, cost of capital, capital structure, dividend policy, cash management, accounts receivable, short-term debt, financial statement analysis, international financial management and financial forecasting. Formerly FIN 533. Prerequisite: ACC 5110 and completion of a course in financial accounting.

Equivalent Courses
FIN533

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:	Credit Hours
2	Max: 3

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

FIN 5450 Real Estate Invest Analysis

Course Info
Course Title
Real Estate Investment Analysis

Course Description
Application of finance theory to investment in income-producing real estate. Topics include market feasibility, property appraisal, income taxation, construction, permanent and creative financing, and investment analysis. Students must prepare and present an investment analysis of an actual property. Formerly FIN 650. Prerequisite: FIN 5330 or its equivalent.

Equivalent Courses
FIN650

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:
3

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

FIN 5600 Investment Analysis

Course Info

Course Title

Investment Analysis

Course Description

This course offers a comprehensive framework for portfolio construction and investment valuation, covering core topics such as modern portfolio theory, valuation of debt securities, and credit analysis with a focus on Value at Risk (VaR) techniques. Students explore major asset classes—including equities, fixed income, and derivatives—alongside advanced areas such as behavioral finance and international investing. Through a combination of theoretical foundations and real-world applications, the course develops the ability to analyze financial markets, optimize portfolios under risk constraints, assess asset performance using quantitative tools, and interpret data-driven financial models and algorithms to support sound investment decisions.

Equivalent Courses

FIN618

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

3

FIN 5680 Financial Modeling

Course Info

Course Title

Financial Modeling

Course Description

In this course, students will learn to implement theoretically sound financial models using Excel spreadsheets to solve intermediate to advanced finance problems. This course will enhance students' understanding of relationship between financial theory and practice. Prerequisite(s): FIN 5330 or its equivalent.

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 5690 Financial Institutions Mgt

Course Info

Course Title

Financial Institutions Management

Course Description

This course focuses on the workings of the U.S.'s and world's financial markets and institutions. It spans interest rate determination, federal policy, and management and policies of commercial banks. Prerequisites: FIN 5330 (or have completed a course in financial management)

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 5700 International Financial Mgt

Course Info

Course Title

International Financial Management

Course Description

Application of finance theory to international financial decision making. Topics include foreign exchange rates, markets and management, inter-national sources of capital, capital budgeting for foreign projects, international diversification and working capital management for the multinational firm. Formerly FIN 627. Prerequisite: FIN 5330 or have completed a course in financial management.

Equivalent Courses

FIN627

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 5720 Adv Financial Management

Course Info

Course Title

Advanced Financial Management

Course Description

Expands on the theories introduced in FIN 533. Topics include capital budgeting under uncertainty, agency theory, financial signaling, leasing, capital restructuring and cash management. Cases may be used to illustrate the application and limitations of finance theory. Formerly FIN 633. Prerequisite: Student must meet the prerequisite (FIN 5330) or its equivalent.

Equivalent Courses

FIN633

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 5760 Financial Data Analytics

Course Info

Course Title

Financial Data Analytics

Course Description

This course will introduce students to data science for financial applications using the Python programming language and its ecosystem of packages. Students will investigate a variety of empirical questions from different areas within finance including: FinTech, asset management, corporate finance, corporate governance, venture capital, and private equity. The course will highlight how big data and data analytics shape the way finance is practiced by focusing on problems currently confronting finance professionals. Prerequisites: FIN 5330 (or have completed a course in financial management) & FIN 5680

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 5840 Deep Learn/Neural NW in Fin

Course Info

Course Title

Deep Learning & Neural Networks in Finance

Course Description

Deep Learning ventures into territory associated with Artificial Intelligence. This course will demonstrate how neural networks can improve practice in various disciplines, with examples drawn primarily from financial engineering. Students will gain an understanding of deep learning techniques, including how alternate data sources such as images and text can advance practice within finance. Prerequisites: FIN 5330 (or have completed a course in financial management) & FIN 5680

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 6055 Portfolio Management

Course Info

Course Title

Portfolio Management

Course Description

Practical and theoretical problems associated with the techniques of optimal portfolio selection, construction, and revision. The portfolio objectives of individuals, corporations, and institutions are covered as well as the Measurement of portfolio performance and related empirical evidence. Prerequisites: FIN 5330 (or have completed a course in financial management)

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 6070 Fixed Income Analysis

Course Info

Course Title

Fixed Income Analysis

Course Description

The fixed income market, accompanied by the introduction of sophisticated financial engineering techniques, has grown enormously over the last two decades. Today, the fixed income market has been a vital segment of the global financial market. This course covers major topics associated with this market, including bond pricing, yields, and volatility; term structure of interest rates and yield curve; market structure and analytical techniques for Treasury, municipal, corporate bonds, mortgage-backed securities, asset-backed securities, and bond with embedded options. The fundamental objective of this course is to help students develop analytical skills for pricing fixed income securities and managing interest rate risk. In addition, materials covered in this course are compatible with the Common Body of Knowledge in Analysis of Debt Investments that is required by the Chartered Financial Analysts (CFA) examination. Prerequisites: FIN 5330 (or have completed a course in financial management)

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:

3

FIN 6370 Financial Strategies

Course Info

Course Title
Financial Strategies

Course Description
This is a course about developing and applying the fundamental ideas and tools of finance to real-world decisions faced by corporations. We will develop and extend standard tools and techniques of financial analysis, valuation, and financial modeling, and apply these methods to a wide range of cases. These topics will include start-ups, working capital, capital budgeting, mergers & acquisitions, leveraged buyouts, international valuation, financial distress, corporate governance and agency conflicts, security issuance, and capital structure. For these applications, the course will emphasize the central importance of financial analysis, valuation, and modeling to guiding optimal decision making. This is the Capstone course.Prerequisites: All foundation courses (ACC 5110, QMM 5100, FIN 5330, FIN 5600, & FIN 5680) must earn a grade of C or better

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:
3

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

FIN 6900 Special Topics in Finance

Course Info

Course Title
Special Topics in Finance

Course Description
An in-depth study of the application of finance theory to a specialized financial management topic. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly FIN 680. Prerequisite: FIN 5330 or its equivalent.

Equivalent Courses
FIN680

College/School
School of Business Admin.

Department
Accounting & Finance

Credits
Credit Hours

Units:
3

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	9

FIN 6970 Independent Study/Finance

Course Info

Course Title

Independent Study in Finance

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by department chair and Office of Graduate Business Programs before registration is permitted. Formerly FIN 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

FIN690

College/School

School of Business Admin.

Department

Accounting & Finance

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

HCM 6040 Curr Issues in Health Care

Course Info

Course Title

Current Issues in Health Care

Course Description

To prompt and enable awareness and appreciation of foundational themes that underlie current issues and controversies in health care. To further a working understanding of diverse points of views and issues. To assure a working vocabulary and familiarity with health care laws. Formerly HCM 604.

Equivalent Courses

HCM604

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:
2

HCM 6060 Qlty Improvement/Health Care

Course Info

Course Title

Quality Improvement in Health Care

Course Description

Examines the philosophy and history of quality control. Topics include identifying customer requirements and critical product characteristics, supplier quality assurance, the continuous quality improvement cycle, the costs of poor quality, strategic planning and policy deployment, robust process design and capability analysis, control charts for numerical and categorical data, recent advances in control charts, and the application of management theory and behavioral research in implementing quality assurance programs. Formerly HCM 606. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM606

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6240 Gov Policy in Health Care

Course Info

Course Title

Government Policy in Health Care

Course Description

Exploring the role of federal and state governmental policy related to the management of health care organizations. Topics include political environment of management; concepts and processes central to political analysis; bureaucratic politics and the manager. Formerly HCM 624. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM624

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6250 Intern'l Comparisons in H.C.

Course Info

Course Title

International Comparisons in Health Care

Course Description

Examines and compares the health care systems in the United States and six other industrialized nations: Canada, France, Germany, the Netherlands, the United Kingdom, and Sweden. The course deepens students' understanding of how the U.S. health care system operates and how it compares with those of other nations. It also explores features of other systems that may have potential applicability to the United States. Formerly HCM 625. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM625

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6330 Managing Cultural Diversity

Course Info

Course Title

Managing Cultural Diversity

Course Description

Provides students an opportunity to examine their own feelings, attitudes, and behavior about people who are different from them, and how these feelings could affect their ability to manage effectively in an increasingly diverse work environment. Formerly HCM 633. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM633

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6340 Hospital Administration

Course Info

Course Title

Hospital Administration

Course Description

This course examines the organization and operation of hospitals. The roles and responsibilities of the board, management and medical staff of a hospital are examined as well as strategic planning, current issues and trends in hospital administration. Formerly HCM 634. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM634

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6350 Transform Health Care Org

Course Info

Course Title

Transforming the Health Care Organizations

Course Description

Examines the leadership challenges in transforming a health care organization from a more traditional fee-for-service system to a managed care and marketing-focused system. Topics include organizational design, technology, organizational culture, compensation, staffing, selection and implementing organizational change. Formerly HCM 635. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM635

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6360 Contract/Negotiation in H.C.

Course Info

Course Title

Contract and Negotiation in Health Care

Course Description

Examines the contract negotiation process in the health care industry. It looks at contract negotiation from the points of view of the covered individual's employer, insurance/managed care firm, medical practice group, and hospital/integrated health care system. Special attention is placed on the problems of cost analysis at each step in the process. Formerly HCM 636. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM636

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

HCM 6380 New Ventures in HC

Course Info

Course Title

New Ventures in Health Care

Course Description

The emphasis of the course is to introduce the student to the process of developing a medical services company. This requires the introduction of new concepts and the application of management and organizational theory to the entrepreneurial process in health care delivery. Contemporary and emerging issues in developing a new medical services company will be examined. Formerly HCM 638. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM638

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

HCM 6420 Facilities Planning & Eval

Course Info

Course Title

Facilities Planning and Evaluation

Course Description

An introduction to the field of facility planning and evaluation in the health care industry. Formerly HCM 642. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM642

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6450 Managing Technology in HC

Course Info

Course Title

Managing Technology in Health Care

Course Description

Provides a framework for examining the diffusion of health care technologies, methods for assessing technologies, and policies affecting the adoption and use of technology. Topics include FDA regulation, Certificate of Need, payment polities, and utilization review mechanisms. The course also examines strategies for managing the acquisition of technology by health care organizations, especially in managed care settings. Formerly HCM 645. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM645

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6460 Data Warehousing in HC

Course Info

Course Title

Data Warehousing in Health Care

Course Description

Examines the application of data warehousing and data mining technologies in the health care setting. Formerly HCM 646. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM646

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6610 Hlth Care Mktg/Consumer Satis

Course Info

Course Title

Health Care Marketing and Consumer Satisfaction

Course Description

Examines the influences on consumer choices in the health care market. Topics include the role of physicians and other staff, offering new services, identifying key sources of information, the role of the market in strategic planning, and developing differential market advantages. Also integrates concepts from operations management and human resource management. Formerly HCM 661. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

HCM661

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HCM 6700 Hospital Finance/Managed Care

Course Info

Course Title
Hospital Finance and Managed Care

Course Description
Examines the underlying theories and features of third party payment systems. An in-depth study is made of the Medicare and Michigan Blue Cross payment systems for hospitals. The role of managed care programs, particularly those of capitated HMOs will also be studied. Also examined are the internal and external financial reporting, operating, and capital budgeting issues related to these payment systems. Formerly HCM 670. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses
HCM670

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

HCM 6900 Special Topics - HCM

Course Info

Course Title
Special Topics in Health Care Management

Course Description
Examines emerging issues in health care management. Formerly HCM 680. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses
HCM680

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	10

HCM 6970 Ind Study in Health Care Mgt

Course Info

Course Title

Independent Study in Health Care Management

Course Description

Independent individual research on a topic chosen by the student. Written approval must be obtained from a health care management faculty member prior to registering for this course. Offered every term. Formerly HCM 690. Prerequisite: Student must be admitted to the Executive MBA program and have approval of instructor and Director of EMBA program.

Equivalent Courses

HCM690

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

HRD 501 Intro to Instructional Design

Course Info

Course Description

Provides students with introductory graduate level preparation in the practice of instructional design. The course will provide students with the principles and practices underlying the design and development of effective instruction. It will cover all phases of the instructional design process from analyzing the need for instruction, to the analysis of the content to be learned, to the design and development of instruction.

College/School

School of Ed. and Human Svcs.

Department

HRD

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HRD 6000 Theoretical Foundations in T&D

Course Info

Course Title

Theoretical Foundations in Training and Development

Course Description

Introduces students to the major learning theories that underlie the field of training and development, including: behavioral, cognitive, constructivist, communication, and systems theories. Students will explore the theories, as well as practical implications for individual and organizational learning. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD502, HRD506

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6010 Instructional Design

Course Info

Course Title

Instructional Design

Course Description

Provides students with introductory graduate level competence in applying systematic instructional design principles and theories to the development of an instructional project. Students will investigate the philosophy and practices underlying the design and development of effective instruction, critically examine components of an instructional design model, and apply its principles to the production of instruction. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD501, HRD503

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

HRD 6020 Needs Assessment

Course Info

Course Title

Needs Assessment

Course Description

Emphasizes the critical importance of identifying the needs of an organization, group, or individual prior to the decision to employ appropriate interventions. Students will learn about the theories and methods of needs assessment and develop knowledge and skills to effectively plan and conduct a comprehensive needs assessment. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD507

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Limit

1

HRD 6030 Program Evaluation

Course Info

Course Title

Program Evaluation

Course Description

Introduces students to current theory and practice in the evaluation of program impact. The course emphasizes four levels of evaluation: learner reactions to programs, learner knowledge acquisition and performance, learner behavior on the job, and return on investment to the organization. Students are taught how to select and apply appropriate tools to evaluate all four levels of program impact. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD605

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6040 Program Administration

Course Info

Course Title

Program Administration

Course Description

This course focuses on understanding and developing the skills required to manage and administer training and development programs. Specific topics will include: assessing program needs, working with internal and external customers, choosing vendors, marketing and publicizing programs, and administering programs. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD510, HRD611

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6050 E-learning Design/Development

Course Info

Course Title

E-learning Design and Development

Course Description

This course will prepare students to design and develop effective e-learning courseware using sound evidence-based instructional principles. Both a theoretical and practical approach will be used to develop student competencies and capabilities. Previously HRD 550. Prerequisite: HRD 6010 or permission of instructor.

Equivalent Courses

HRD550

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6060 Advanced Instructional Design

Course Info

Course Title

Advanced Instructional Design

Course Description

Facilitates an advanced level of professional competence in instructional design for individuals who aspire to leadership positions in the field of training and development. Students will explore various approaches to analysis, design, development, and evaluation of instruction. Student must meet prerequisite (HRD 503).

Equivalent Courses

HRD603

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6070 Instr Design Theory to Practic

Course Info

Course Title

Instructional Design Theory to Practice

Course Description

Focuses on the theories in instructional design including systems theory, communication theory, learning theories and instructional theory. Each of these four theories will be taught including definition, history and practice in the field of instructional design. Student must meet prerequisite (HRD 503).

Equivalent Courses

HRD625

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6080 Org. Culture and Change

Course Info

Course Title

Organizational Culture and Change

Course Description

This course examines organizational culture, organizational leadership, and the dynamics of organizational change. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6090 Developing and Leading Teams

Course Info

Course Title

Developing and Leading Teams

Course Description

This course is a study of the design and leadership of team-based structures and processes to enhance quality, performance, and employee satisfaction in the workplace. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

Equivalent Courses

HRD530

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6100 Ldrship Theory and Dev

Course Info

Course Title

Leadership Theory and Development

Course Description

This course focuses on the major leadership theories and the primary tools professionals apply to develop management and leadership capabilities for individuals in the workplace. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

Equivalent Courses

HRD635

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HRD 6110 Ethics in HRD

Course Info

Course Title

Ethics in HRD

Course Description

Introduces students to the influences and concepts that shape ethical behaviors in the workplace. Students will investigate the code of ethics and integrity for HRD research and practice, the importance of social responsibility, strategies for promoting ethical behavior in the workplace, and ethical approaches for resolving workplace situations and problems. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD610

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HRD 6120 Career Development

Course Info

Course Title

Career Development and Succession Planning

Course Description

Develops the knowledge and skills required to provide career development systems and succession planning programs in an organization. The course will feature a balance between these two perspectives, and will emphasize aligning these systems with individual and organizational needs. Student must be admitted to the Master of Training and Development program.

Equivalent Courses

HRD540

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6130 Org Development in Action

Course Info

Course Title

Organization Development in Action

Course Description

Facilitates an advanced level of competence in the application of the OD process for students who aspire to practice OD in the field. Students will explore various approaches to designing, developing, and implementing an OD intervention. Student must meet prerequisite (HRD 504) or have permission of instructor.

Equivalent Courses

HRD615

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6140 Intro Human Diverse Inclusion

Course Info

Course Title

Introduction to Human Diversity Inclusion and Social Justice Perspectives

Course Description

This course is designed to provide its participants with the competencies and strategies needed to develop useful human diversity policies and practices in a variety of contexts. Course will draw upon human diversity, workforce diversity inclusion and social justice theories, along with expert knowledge to promote participants learning. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6150 Leadership in a Global Context

Course Info

Course Title

Leadership in a Global Context

Course Description

This course explores the history, current state, and future implications for leadership in a global context. Students will learn the competencies of global leadership, the process of global leadership development, and the relationship between culture, leadership behaviors, and outcomes. A case study approach will allow students to apply, analyze, and synthesize course concepts. Prerequisites: Acceptance in the Master of Organizational Leadership program or instructor permission.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6160 Spirituality and Racism

Course Info

Course Title

Spirituality and Racism

Course Description

What does “spirituality” mean, and why has it become such a pervasive self-description in contemporary America? Especially spiritual vs religious. How does our spirituality influence or impact racists behavior and incidents? How should it? This interdisciplinary course surveys spirituality in America, with a particular eye for the relationship between spirituality and racism, on the one hand, and secular modes of understanding the self, such as psychology, on the other. The study of spirituality and racism forces us to confront many of the central concerns of modern American life: psychology, self-help, and therapeutic culture; global religious and cultural encounters; gender and sexuality; and consumerism and mass culture. What is the fate of spirituality, religion and racism in a modern, capitalist, globalized society?

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

HRD 6170 Motivation/Leadership in Orgs

Course Info

Course Title

Motivation and Leadership in Organizations

Course Description

This course examines human motivation in organizations and its relation to leadership. More specifically, we will discuss the processes and principles of motivation through the lens of leadership, and explore motivational models and approaches. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6800 Leadership Sem & Prof Port

Course Info

Course Title

Leadership Seminar and Professional Portfolio

Course Description

This course synthesizes theoretical and practical elements of organizational leadership including leadership theory and development, motivation and influence, teams, organizational culture and change, human diversity, and global leadership. Students will apply these theories to practical applications in the field using a case method approach. Students will also finalize and deliver a professional portfolio illustrating their level of expertise in organizational leadership theory and/or development. Prerequisites: Acceptance in the Master of Organizational Leadership program or instructor permission.

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

HRD 6801 Intro of Lean Leadership I

Course Info

Course Title

Introduction and Theories of Lean Leadership I

Course Description

The course will provide its participants with the introductory content (theories, philosophies and tools) and competencies (knowledge, dispositions, and applications) needed to lead individuals to continuously improve their organizations. Content focuses upon Lean history, Lean principles, total quality management, value stream mapping, root cause, Ishikawa diagram and 5S.Prerequisite(s): Admission into the program

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HRD 6802 Intro of Lean Leadership II

Course Info

Course Title

Introduction and Theories of Lean Leadership II

Course Description

The course provides intermediate content (theories, philosophies, and tools) and competencies (knowledge, dispositions, and applications) needed to lead individuals to continuously improve their organizations. Content focuses upon Gemba-Waste Walks, Visual Management, Kaizen and PDCA, and A3 tools. The program design has the leaner evolve from self-actualization to confident actualized development. Prerequisite(s): HRD 6801 and HRD 6950

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HRD 6803 Methods of Lean Leadership I

Course Info

Course Title

Methods of Lean Leadership I

Course Description

The course provides advanced content (theories, philosophies, and tools) and competencies (knowledge, dispositions, and applications) needed to lead individuals to continuously improve their organizations. Content focuses upon Visual Management, Six Sigma, Jidoka, Lean Functional/Financial Models. Lean Analytics, Kanban, Standard Work, and Lean Culture. Advanced team discussions utilize two-way communication and engaged questioning. Prerequisite(s): HRD 6801, HRD 6802, HRD 6950 & HRD 6951

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HRD 6804 Methods of Lean Leadership II

Course Info

Course Title
Methods of Lean Leadership II

Course Description
The course provides master content (theories, philosophies, and tools) and competencies (knowledge, dispositions, and applications) needed to lead individuals to continuously improve their organizations. Content focuses upon Lean Project Management, Hoshin Planning, Kata, and Transformational Leadership. Strategic Planning and Project Planning supported by the practice of Transformational Leadership are introduced, practiced, and used. Prerequisite(s): Completion of a bachelor's degree from an accredited university with a cumulative GPA of 3.0 or higher. An official letter of acceptance from the Oakland University Graduate Study Office stating that you have been admitted into the Graduate Certificate in Lean Leadership. Completion of HRD 6803 with 3.0 or higher.

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits
Credit Hours
Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HRD 6900 Current Trends

Course Info

Course Title
Current Trends

Course Description
Analyzes current topics related to Training and Development. Topics may include: the learning organization, linking training and development to organizational strategy, systems thinking, informal and incidental learning in the workplace, diversity issues in training and development, legal and ethical issues in training and development, spirituality in the workplace, action learning, utilizing technology in training and development, performance technology, interactive distance learning. Prerequisite(s): Acceptance in the Master of Organizational Leadership program or instructor permission.

Equivalent Courses
HRD630

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits
Credit Hours
Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

HRD 6950 Lean Leadership Intern I

Course Info

Course Title

Lean Leadership Internship I

Course Description

The course provides two to four levels of learning (self, peer, team and mastery) within a specified personal project, class-team project, work-team project and a work-leading project using sequences of mentee and mentor experiences. Change leadership, communication and critical thought are used as the drivers to lead workforces to continuously improve and sustain change.Prerequisite(s): HRD 6801

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

HRD 6951 Lean Leadership Intern II

Course Info

Course Title

Lean Leadership Internship II

Course Description

The course provides two to four levels of learning (self, peer, team and mastery) within a specified personal project, class-team project, work-team project and a work-leading project using sequences of mentee and mentor experiences. Change leadership, communication and critical thought are used as the drivers to lead workforces to continuously improve and sustain change.Prerequisite(s): HRD 6801, HRD 6802 and HRD 6950

College/School

School of Ed. and Human Svcs.

Department

Organizational Leadership

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

HRD 6970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Independent study in a topic in training and development under the guidance of a faculty member. Student must have permission of instructor.

Equivalent Courses
HRD650

College/School
School of Ed. and Human Svcs.

Department
Organizational Leadership

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	4	4
RP		

HS 5010 Pharmacology

Course Info

Course Title
Pharmacology

Course Description
An introduction to the principles of pharmacology, including the principles of drug therapy and the actions of the basic classes of drugs. Student must meet the prerequisites (BIO 207 or BIO 321).

Equivalent Courses
HS531

College/School
School of Health Sciences

Department
Interdisciplinary Health Sci

Credits

Credit Hours

Units:
2

HS 5100 Evidence Decision & Rsch Hlthc

Course Info

Course Title

Evidence-based Decision Making and Research in Healthcare

Course Description

This course covers principles of Evidence-Based Practice, including how to search databases, evaluate study strengths and weaknesses, and how to grade the evidence. Students will integrate findings from research literature and professional consensus statements to improve patient care.

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HS 5200 ID Healthcare Delivery Seminar

Course Info

Course Title

Interdisciplinary Healthcare Delivery Seminar

Course Description

This seminar provides students with an overview of current research, topics, and trends in patient care, healthcare services and organizations.

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

HS 5500 Ethic & Prof Prac Hlth Del

Course Info

Course Title

Ethical and Professional Practice in Healthcare Delivery

Course Description

This course will examine foundations of ethical decision making and professional behaviors by leaders in healthcare. Students will draw on ethical principles, professional standards and scope practice and apply them to patient care, research, and health care systems.

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HS 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

May be repeated for additional credit. Prerequisite: Permission of instructor.

Equivalent Courses

HS505

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

HS 6100 Hlthcare Syst & Delv Practicum

Course Info

Course Title

Healthcare Systems and Delivery Practicum

Course Description

In this practicum, students will apply quality improvement or research methods to a process, system, or practice within a health care organization.Prerequisite(s): HS 5100, HS 5200, ISE 5574, PA 5600, PH 5650

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HS 6300 App. Inter. Decision Making

Course Info

Course Title

Applied Interprofessional Decision Making in Healthcare Teams

Course Description

This course will promote students' understanding and application of theories and research in both individual and team-based communication in health care settings. Interdisciplinary teams, roles and responsibilities, communication strategies, ethical and professional considerations, and quality improvement processes will be discussed. Emphasis will be placed on real-world applications.

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HS 6500 Hlthcare Syst & Delv Capstone

Course Info

Course Title

Healthcare Systems and Delivery Capstone

Course Description

Following the PH 6100 practicum, students will analyze data, develop reports, and disseminate their findings to stakeholders and multidisciplinary groups. Prerequisite: HS 6100

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

HS 6995 Health Sciences Thesis Research

Course Info

Course Title

Health Science Thesis Research

Course Description

Independent research approved by the student’s faculty adviser and thesis committee. Students must present their findings in a written master’s thesis and oral defense. Offered every semester. Prerequisite(s): Students must have completed 16 credits of graduate courses including a research methods course: (PH 5410 and PH 5411) or (PH 5450 and PH 5451) or PH 5550 or PH 6150.

College/School

School of Health Sciences

Department

Interdisciplinary Health Sci

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

NR

HST 5110 Hist North American Colonies

Course Info

Course Title

History of the North American Colonies

Course Description

Examines the major themes and developments of the Colonial period with an emphasis on regional settlement and development patterns, political and social growth, and the maturation of the colonies. Formerly HST 506.

Equivalent Courses

HST506

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5120 The American Revolution

Course Info

Course Title

The American Revolution

Course Description

Considers the broad social and political movements leading to the Revolution as well as the many different meanings and interpretations of the event, and the immediate and long-term effects of legacies of the Revolution. Formerly HST 508.

Equivalent Courses

HST508

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5125 US Early National Period

Course Info

Course Title

The U.S. Early National Period, 1787-1815

Course Description

Examines the political and social development of the new nation from the Constitution through the end of the War of 1812. Formerly HST 509.

Equivalent Courses

HST509

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5130 Jacksonian American

Course Info

Course Title

Jacksonian America

Course Description

Examines the chief political, social, cultural, economic, and religious developments from the War of 1812 to the end of the Mexican War. Formerly HST 510.

Equivalent Courses

HST510

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5140 History of the American South

Course Info

Course Title

History of the American South

Course Description

The South from colonial times to the 1960s, emphasizing the transition from the agrarian, slave South of the antebellum period to the modern South of the 20th century. Formerly HST 519.

Equivalent Courses

HST519

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5145 Civil War/Reconstruction

Course Info

Course Title

The Civil War and Reconstruction, 1850-1876

Course Description

The origins of secession, the wartime problems of the Union and the Confederacy, the principal military campaigns, the Reconstruction Era and the creation of a new Union, and the significance of the Civil War and Reconstruction in American history. Formerly HST 512.

Equivalent Courses

HST512

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5204 American History 1928-1945

Course Info

Course Title

American History, 1928-1945

Course Description

A history of the Great Depression and World War II. Topics will include the One Hundred Days, the foundation of the modern welfare state, the foundation of the modern civil rights movement, the reorganization of American corporate enterprise and the role of the United States in international peacekeeping. Formerly HST 515.

Equivalent Courses

HST515

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5206 Cold War America 1945-1990

Course Info

Course Title

Cold War America, 1945-1990

Course Description

The origins of the Cold War, its impact on American foreign relations and domestic politics, its decline and demise. Formerly HST 520.

Equivalent Courses

HST520

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5210 Amer Foreign Relation-20th Cen

Course Info

Course Title

History of American Foreign Relations in the Twentieth Century

Course Description

American foreign policy and diplomacy from the Spanish-American War to the present, including such topics as American imperialism, Caribbean and Far Eastern policies, involvement in the world wars and the Cold War and nuclear diplomacy. Formerly HST 521.

Equivalent Courses

HST521

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5220 American Industria Econ/ Society

Course Info

Course Title

History of the American Industrial Economy and Society

Course Description

The development of the American industrial system and its impact on business organization, labor, government and the international economy. Formerly HST 504.

Equivalent Courses

HST504

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5225 History American Mass Media

Course Info

Course Title

The History of American Mass Media

Course Description

The establishment and growth of mass communication in the United States, focusing on the development of print, film, radio and television and their impact on society and popular culture. Formerly HST 505.

Equivalent Courses

HST505

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5230 American Labor History

Course Info

Course Title

American Labor History

Course Description

The economic, social and political history of the American work force and labor movement with emphasis on the history of organized labor. Formerly HST 502.

Equivalent Courses

HST502

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5235 Working Detroit

Course Info

Course Title

Working Detroit

Course Description

Explores the history of 20-century Detroit from the perspectives of its workers and unions. Key themes include immigration and ethnic diversity, the rise of mass production, the union movement, race relations, gender and the labor force, the postwar boom, and e-industrialization. Formerly HST 592.

Equivalent Courses

HST592

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5250 Oral History

Course Info

Course Title

Oral History

Course Description

Explores the complexities of a methodology widely used in historical research: interviewing people to learn about the past. Students will design their own oral history projects and conduct their own interviews. Formerly HST 593.

Equivalent Courses

HST593

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5270 History of American Cities

Course Info

Course Title

History of American Cities

Course Description

History of American Cities from pre-industrial America to the present, emphasizing the effect of such forces as industrialization, immigration, migration, trade, economic patterns and transportation upon city organization and life. Formerly HST 501.

Equivalent Courses

HST501

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5275 History of American Families

Course Info

Course Title

History of American Families

Course Description

History of American families as social institutions emphasizing the impact of historical events and trends upon family composition, family functions and family life. Includes research in the student's personal family history. Formerly HST 561.

Equivalent Courses

HST561

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5285 History African American Women

Course Info

Course Title

History of African American Women

Course Description

Covers the collective and individual experiences of African American women from slavery to the present, including the quality of family life, economic roles, and their activities in women's, civil rights and political organizations. Formerly HST 562.

Equivalent Courses

HST562

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5288 Topics in African-American Hst

Course Info

Course Title

Topics in African American History

Course Description

The economic, social, and political activities, status, organizations and institutions of African-American people, emphasizing the twentieth century. Formerly HST 523.

Equivalent Courses

HST523

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5320 The Middle Ages, 300-1100

Course Info

Course Title

The Middle Ages, 300-1100

Course Description

Examines the foundations of medieval Europe, including the Roman, Germanic and Christian roots; Charlemagne's Europe; cultural developments and the Church; the first crusade. Formerly HST 525.

Equivalent Courses

HST525

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5335 England, 1066-1485

Course Info

Course Title

England, 1066-1485

Course Description

Emphasizes the history of England between the Conquest and the Tudors, including cultural and social trends, as well as political and dynastic developments and conflicts, domestic and foreign.

Equivalent Courses

HST530

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5340 The Italian Renaissance

Course Info

Course Title

The Italian Renaissance

Course Description

The European Renaissance period, with emphasis on the Italian experience. Formerly HST 526.

Equivalent Courses

HST526

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5365 Women in Early Modern Europe

Course Info

Course Title

Women in Early Modern Europe, 1500-1789

Course Description

Assesses women's contributions to the changes and events of early modern Europe, examines women in the private and public spheres, and explores the dynamic of gender in studying the impact of women in politics, the economy, literacy and culture, and religious practices and beliefs. Formerly HST 539.

Equivalent Courses

HST539

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5370 Europe In The 17th Century

Course Info

Course Title

Europe in the Seventeenth Century

Course Description

A comparative analysis of European societies: the articulation of absolutism and constitutionalism, the emergence of the European state system, the origins and impact of modern science, the culture of the baroque and the development of commercial capitalism. Formerly HST 529.

Equivalent Courses

HST529

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5390 Early Modern France

Course Info

Course Title

Early Modern France

Course Description

The ancient regime in France from the end of the wars of religion to the beginning of the Revolution (1589-1789). Formerly (HST 549)

Equivalent Courses

HST549

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5400 Europe Since 1914

Course Info

Course Title

Europe Since 1914

Course Description

An analysis of Europe in world perspective since World War I. Formerly HST 541.

Equivalent Courses

HST541

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5405 Nationalism in Modern Europe

Course Info

Course Title

Nationalism in Modern Europe

Course Description

Origins and development of nationalism in Europe from the 18th through the 20th century. Political formation of European nation-states, the varied cultural manifestations of nationalism, and the reawakening of European nationalism in the aftermath of the Cold War. Formerly HST 552.

Equivalent Courses

HST552

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5410 EuroThought French Rev-Present

Course Info

Course Title

European Thought and Ideology from French Revolution to Present

Course Description

A topical and thematic history of modern European thought and ideology: romanticism; liberalism and progress; science and technology; socialism; conservatism, pessimism, and the "revolt against reason"; fin de siècle culture; the effects of the Great War; fascism, genocide and totalitarianism; religious and existentialist thought. Formerly HST 551.

Equivalent Courses

HST551

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5420 Ireland, 1691 to the Present

Course Info

Course Title

Ireland, 1691 to Present

Course Description

History of modern Ireland from the Williamite wars to contemporary Ireland. Emphasis on the question of Irish national identity. Topics include colonial Ireland, revolution and the union, Catholic emancipation, the Great Famine, nationalism and republicanism, the 1916 Easter Rising, forging the new state and society, and the North. Formerly HST 538.

Equivalent Courses

HST538

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5430 Britain 1815-1911

Course Info

Course Title

Britain, 1815-1911

Course Description

A consideration of the political, cultural, social and intellectual life of the British peoples from the passage of the Corn Laws to the Parliament Act of 1911. Formerly HST 534.

Equivalent Courses

HST534

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5435 Britain 1911 to the Present

Course Info

Course Title

Britain, 1911 to Present

Course Description

An analysis of British political, cultural and social history from the eve of World War I to the present. Formerly HST 535.

Equivalent Courses

HST535

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5450 Modn Italy:Unificatn/20th Cent

Course Info

Course Title

Modern Italy: National Unification and the 20th Century

Course Description

An examination stressing political and institutional history, of early efforts to create Italian national unity, the means by which Italy was held together following unification of 1861, and the fate of the Republic from 1946 onward. Formerly HST 544.

Equivalent Courses

HST544

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5480 Germany Since 1740

Course Info

Course Title

Germany Since 1740

Course Description

German politics, society and diplomacy from Frederick the Great to the present. Formerly HST 543.

Equivalent Courses

HST543

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5485 Nazi Germany: Soc/Pol/Culture

Course Info

Course Title

Nazi Germany: Society, Politics and Culture

Course Description

Introduction to the Nazi regime in Germany. Special attention given to the origins and early years of the Nazi movement, as well as to the nature of German society, politics and culture during the Third Reich. Formerly HST 553.

Equivalent Courses

HST553

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5490 History of Modern Russia

Course Info

Course Title

History of Modern Russia

Course Description

The historical development of Russia from its roots to the present. Special emphasis will be placed on events after World War II and the perestroika. Formerly HST 554.

Equivalent Courses

HST554

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5495 Eastern European History

Course Info

Course Title

Eastern European History

Course Description

The historical development of the peoples and states of Eastern Europe and the Balkans from the Middle Ages to the present will be examined in broad outline. Formerly HST 555.

Equivalent Courses

HST555

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5520 Cold War in Middle East

Course Info

Course Title

The Cold War in the Middle East

Course Description

Examines conflict and peace making in the Middle East in the context of the Cold War, especially decolonization, nationalism, and revolution as these issues were affected by U.S.-Soviet rivalry. Formerly HST 558.

Equivalent Courses

HST558

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5540 Arab-Israeli Conflict

Course Info

Course Title

The Arab-Israeli Conflict

Course Description

Examines the origins and development of the Arab-Israeli conflict, the emergence of a peace process, and the collapse of that process, focusing primarily on the development of Israeli and Palestinian political identities and institutions. Formerly HST 557.

Equivalent Courses

HST557

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5660 Hist of Argentina/Brazil/Chile

Course Info

Course Title

History of Argentina, Brazil, and Chile

Course Description

The social, political and economic history of Argentina, Brazil and Chile in the nineteenth and twentieth centuries; frontier expansion and Indian warfare, slavery and Empire in Brazil, regionalism and nationalism, industrialization and urbanization, and international relations. Formerly HST 563.

Equivalent Courses

HST563

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5675 Slavery/Race in Latin America

Course Info

Course Title

Slavery and Race in Latin America

Course Description

A comparative study of slavery in North America, Latin America and the Caribbean, and the present state of race relations in these areas. Formerly HST 566.

Equivalent Courses

HST566

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5710 Ancient African Civilizations

Course Info

Course Title

Ancient and "Medieval" African Civilizations

Course Description

A cultural history of ancient African civilizations, focusing primarily on Egyptian national culture from its beginning (c.3100 B.C.E.) until the Islamic Age (c.640-). Introduces ancient arts and religions from Kush, Ethiopia, Carthage and Roman Africa, culminating in the contributions that Africans like St. Augustine made to the growth of early Christianity. Formerly HST 585

Equivalent Courses

HST585

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5720 Modern African Hst Since 1800

Course Info

Course Title

Modern African History Since 1800

Course Description

A socio-cultural and political history of 20th-century Africa, focusing particularly on social change, nationalist leaders and constructive critics in such modern nations as Ghana, Senegal, Kenya and Tanzania. Formerly HST 586.

Equivalent Courses

HST586

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5810 China Lst Dynst:Qing/ 1644-1911

Course Info

Course Title

China's Last Dynasty: The Qing, 1644-1911

Course Description

History of China's last great dynasty, from its founding by the Manchus in 1644, through its powerful early emperors, to its collapse in 1911. Course includes discussion of traditional Chinese culture and institutions, territorial expansion, the Opium Wars and the 19th century revolutionary movement. Formerly HST 573.

Equivalent Courses

HST573

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5815 China in Revolution 1911-1949

Course Info

Course Title

China in Revolution, 1911-1949

Course Description

China's 20th century revolutionary experience, focusing on the 1911, 1928 and 1949 revolutions. Topics include the struggle between China's two revolutionary parties, the Nationalists and Communists; social change under the young republic; World War II in Asia; and the civil war which brought the Chinese Communist Party to power in 1949. Formerly HST 574.

Equivalent Courses

HST574

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5820 China since 1949

Course Info

Course Title

China since 1949

Course Description

History of contemporary China from the 1949 revolution to the present, focusing on major social and political issues facing the Chinese Communist Party and attempted solutions. Topics include economic development, political and social change and the 1980s era of reform. Formerly HST 576.

Equivalent Courses

HST576

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5825 China and Inner Asia

Course Info

Course Title

China and Inner Asia

Course Description

Examination of China's historical relations with Inner Asia, focusing on Chinese policy toward steppe empires north of the great wall and including discussion of the nomadic Xiongnu, Turks, early Tibetans, and Mongols. Emergence of modern Inner Asian peoples such as the Uyghurs, Kazaks, and Manchus, and the role of Inner Asia in shaping modern China. Formerly HST 577.

Equivalent Courses

HST577

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5870 Origins of Modern Japan

Course Info

Course Title

Origins of Modern Japan

Course Description

Japan from the "late feudalism" of the Tokugawa period through the first phase of Western-style modernization in the Meiji period.

Themes include the perfection and decay of the samurai state, the Meiji revolution, nationalism, imperialism, and movements for social and political democracy. Formerly HST 570.

Equivalent Courses

HST570

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5875 Twentieth-Century Japan

Course Info

Course Title

Twentieth-Century Japan

Course Description

Japan since the Meiji period: the Taisho democracy movement, the changing position of women, fascism and militarism, total war, the American occupation, and the rise to economic superpower status. Formerly HST 571.

Equivalent Courses

HST571

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

HST 5900 Selected Topics in History

Course Info

Course Title

Selected Topics in History

Course Description

Directed reading and research at the graduate level, in fields of history in which advanced graduate courses are not available. Student must have permission of supervising instructor. Formerly HST 590.

Equivalent Courses

HST590

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

HST 5920 Directed Readings I

Course Info

Course Title

Directed Readings I

Course Description

Directed individual readings on defined historical problems and/or topics. Students engage in historiographical analysis and/or content of primary sources. Student must have permission of instructor. If taken in addition to HST 5921, the course must focus on a different content, topic or problem. Formerly HST 591.

Equivalent Courses

HST591

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HST 5921 Directed Readings II

Course Info

Course Title
Directed Readings II

Course Description
Directed individual readings on defined historical problems and/or topics. Students engage in historiographical analysis and/or content of primary sources. Permission of instructor. If taken in addition to HST 5920, course must focus on different content, topic, or problem.

College/School
College of Arts and Sciences

Department
History

Credits

Credit Hours

Units:	Credit Hours
2	Max:
	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HST 5940 Seminar/World Transnat'l Hst

Course Info

Course Title
Seminar in World and Transnational History

Course Description
Explores major issues in the historiography and methods of world and transnational history. Focuses on themes of state formation, differential economic development, and diffusion of technology, and includes an America-and-the-world component. Formerly HST 579.

Equivalent Courses
HST579

College/School
College of Arts and Sciences

Department
History

Credits

Credit Hours

Units:
4

HST 5980 Historical Research Seminar I

Course Info

Course Title

Historical Research Seminar I

Course Description

Investigation of topics in history in a capstone seminar setting. Substantive issues, research techniques and historiographical problems will be considered. Research paper to be submitted at course conclusion. Topics vary. Permission of instructor. If taken in addition to HST 5981, course must focus on different content, topics, or problems.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HST 5981 Historical Research Seminar II

Course Info

Course Title

Historical Research Seminar II

Course Description

Investigation of topics in history in a capstone seminar setting. Substantive issues, research techniques and historiographical problems will be considered. Research paper to be submitted at course conclusion. Topics vary. Permission of Instructor. If taken in addition to HST 5980, must focus on different content or topics and produce a different project.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HST 6941 Colloquium I

Course Info

Course Title

Colloquium I

Course Description

Intensive reading and discussion on a significant period or broad topic of history. Students will engage in identifying, summarizing, appraising, and synthesizing other scholars’ historical arguments, historical problems, and/or content of primary sources. Permission of instructor. If taken in addition to HST 6941, course must focus on different content, topics or problems.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HST 6942 Colloquium II

Course Info

Course Title

Colloquium II

Course Description

Intensive reading and discussion on a significant period or broad topic of history. Students will master identifying, summarizing, appraising, and synthesizing other scholars’ historical arguments, historical problems, and/or content of primary sources. Permission of instructor. If taken in addition to HST 6941, course must focus on different content, topic, or problem.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

HST 6945 Graduate Research Seminar I

Course Info

Course Title

Graduate Research Seminar I

Course Description

Students will develop skills in historical research, crafting evidence-supported projects consisting of historical narratives, arguments, and reports of research findings. Permission of instructor.

Equivalent Courses

HST680

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

HST 6946 Graduate Research Seminar II

Course Info

Course Title

Graduate Research Seminar II

Course Description

Students will master skills in historical research, crafting evidence-supported projects consisting of historical narratives, arguments, and reports of research findings. Student must have permission of instructor. Course must complete a different project than one undertaken in HST 6945 Research Seminar I.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

HST 6995 Research Tutorial I

Course Info

Course Title

Research Tutorial I

Course Description

Directed individual research leading to the completion of a substantial research project in history. Permission of instructor. If taken in addition to HST 6996, course must focus on different content, topics or problems. Comments: Formerly HST 681.

Equivalent Courses

HST681

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HST 6996 Research Tutorial II

Course Info

Course Title

Research Tutorial II

Course Description

Directed individual research leading to the completion of substantial research project in history. Permission of Instructor. If taken in addition to HST 6995, course must focus on different content, topics or problems.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

HST 6997 Master Thesis

Course Info

Course Title

Master Thesis

Course Description

Directed research leading to a master’s thesis. Research topic and defense approved by thesis committee chair. May be repeated for credit.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

1

Credit Hours

Max:

6

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

HST 6998 Field or Thesis Examination

Course Info

Course Title

Field or Thesis Examination

Course Description

Examination taken in the last semester of the student’s program; student must secure permission of the faculty adviser before registering. Graded Satisfactory/Unsatisfactory. Student must have permission of faculty adviser. Formerly HST 600.

Equivalent Courses

HST600

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:

2

HST 6999 Master Project

Course Info

Course Title

Master Project

Course Description

Advanced research project focused in area relevant to student interest. Project topic must be approved by graduate coordinator. Written report is required. Course may be repeated for a total of 6 credits.

College/School

College of Arts and Sciences

Department

History

Credits

Credit Hours

Units:	Credit Hours Max:
1	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

IB 6700 IB: Philosophy and Practices I

Course Info

Course Title

International Baccalaureate: Philosophy and Practices I

Course Description

Provides understanding of the International Baccalaureate Organization methodologies, philosophies and practices in the Primary Years Program (PYP), Middle Years Program (MYP), and Diploma Program (DP).

Equivalent Courses

IB670

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
2

IB 6701 IB: Philosophy and Practice II

Course Info

Course Title

International Baccalaureate: Philosophy and Practice II

Course Description

Provides understanding of the International Baccalaureate Organization methodologies, philosophies and practices in the Primary Years Program (PYP), Middle Years Program (MYP), and Diploma Program (DP).

Equivalent Courses

IB671

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6702 IB: Intn'l/Global Education I

Course Info

Course Title

International Baccalaureate: International and Global Education I

Course Description

The purpose of this course is to give students opportunities to consider the nature of citizenship and teaching and learning in the twenty-first century. In doing so they will recognize why the concept of international-mindedness, i.e., teaching and learning about different dimensions of the human condition, as shaped by culture and geography, is an organizing principle of the Primary Years, Middle Years and International Baccalaureate Programs. Prerequisites: IB 670, 671.

Equivalent Courses

IB672

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6703 IB: Intn'l/Global Education II

Course Info

Course Title

International Baccalaureate: International and Global Education II

Course Description

Gives students opportunities to build upon and apply what they have learned about global and international education in EST 672 in their own classrooms and schools, within a supportive online community. Continues to broaden students' awareness of various perspectives on issues in global education. Uses an online environment to support teachers in fostering the development of students' international and global knowledge and understanding with the contexts of the Primary Years Program, Middle Years Program and International Baccalaureate Diploma Program. Prerequisites: IB 670, 671.

Equivalent Courses

IB673

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6704 IB: Teaching/Learning/Curric

Course Info

Course Title

International Baccalaureate: Teaching, Learning, and the Curriculum

Course Description

Explores philosophies, rationale, and methods of teaching IB curriculum to students in PYP, MYP, and DP programs. Focuses on developing an understanding of the relationships between teaching and learning. Explores various teaching strategies effective in implementing IB programs, as well as knowledge and skills for planning instruction. Prerequisites: IB 670, 671, 672, 673.

Equivalent Courses

IB674

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6705 IB: Curric/Instruct in Classrm

Course Info

Course Title

International Baccalaureate: Curriculum and Instruction in the Classroom

Course Description

An online course which explores philosophies, rationale, and methods of teaching IB curriculum to students in PYP, MYP, and DP programs. Focuses on developing an understanding of the relationships between teaching and learning. Explores various teaching strategies effective in implementing IB programs, as well as knowledge and skills for planning for instruction. Prerequisites: IB 670, 671, 672, 673, 674, 676.

Equivalent Courses

IB675

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6706 IB: Assessment/Support Lrng

Course Info

Course Title

International Baccalaureate: Assessment to Support Learning

Course Description

Engages teachers in understanding the purpose that assessment plays in supporting achievement in International Baccalaureate (IB) programs. Teachers will learn to implement diverse strategies, design appropriate tasks and rubrics, differentiate assessments to support all learners, and utilize effective feedback that are appropriate to primary years, middle years, and diploma programs. Prerequisites: IB 670, 671, 672, 673.

Equivalent Courses

IB676

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6707 IB: Assessment in Classroom

Course Info

Course Title

International Baccalaureate: Assessment in the Classroom

Course Description

An online field course that engages teachers in applying assessment principles, accessing online assessment resources and implementing effective practices in International Baccalaureate (IB) programs.

Teachers will implement a variety of assessment strategies, design appropriate tasks and rubrics and demonstrate effective methods for providing feedback to students, other teachers, administrators and parents. Prerequisites: IB 670, 671, 672, 673, 674, 676.

Equivalent Courses

IB677

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6708 IB: Prof Lrng/Refl Pract/Rsch

Course Info

Course Title

International Baccalaureate: Professional Learning through Reflective Practice and Research

Course Description

This course engages teachers in understanding the role that practitioner reflection and research play as components of professional learning designed to support student achievement in International Baccalaureate programs. Participants will learn and practice the methods and dispositions of practitioners who incorporate structured reflection and research into their continuous professional development. Prerequisites: IB 670, 671, 672, 673, 674, 675, 676, 677.

Equivalent Courses

IB678

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6709 IB: Prof Lrng/Coll Action Res

Course Info

Course Title

International Baccalaureate: Professional Learning through Collaborative Action Research

Course Description

This course engages teachers in understanding the role that collaborative action research plays as a component of professional learning designed to support student achievement in International Baccalaureate programs. Participants will learn and practice the methods of structured action research as a vehicle for both continuous professional development and school improvement.

Prerequisites: IB 670, 671, 672, 673, 674, 675, 676, 677.

Equivalent Courses

IB679

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

IB 6800 Intro IB Princ Pract & Curr

Course Info

Course Title

Introduction to International Baccalaureate Practices and the Curriculum

Course Description

Provides school administrators with an understanding of the International Baccalaureate organization, methodologies, philosophies and practices for the Primary Years Program (PYP), Middle Year Program (MYP), Diploma Program (DP), and the International Baccalaureate Career Certificate (IBCC).

Equivalent Courses

IB680

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

IB 6801 Ldrs IB Schls/Theory to Pract

Course Info

Course Title

Leaders in International Baccalaureate Schools: Moving from Theory to Practice

Course Description

Builds upon the knowledge and understanding of IB 680 to help school administrators develop a successful program within their particular educational setting. Student must meet the prerequisite (IB 680).

Equivalent Courses

IB681

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

IB 6970 Indep Study/Int'l Bacc Edu

Course Info

Course Title

Independent Study in International Baccalaureate Education

Course Description

Individual work in International Baccalaureate Education for school professionals. May be repeated for a total of 4 credits.

Equivalent Courses

IB690

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

4

ISE 5001 Engr Stats/Economic Analysis

Course Info

Course Title

Engineering Statistics and Economic Analysis

Course Description

Simple linear and multiple linear regression analysis, design of experiments - single factor, full factorial, fractional factorial design. Taguchi's method, control charts, and time series analysis. Engineering cost models, equivalence analysis, estimation of net present value, rate of return, depreciation and taxes, incremental analysis, and uncertainty in cash flow. Formerly ISE 501. Offered fall. Credit not applicable toward an M.S. or Ph.D. degree.

Equivalent Courses

ISE501

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5002 Engineering Operations Rsrch

Course Info

Course Title

Engineering Operations Research

Course Description

Introduction to operations research models used in decision making and system performance evaluation. Topics include linear programming including simplex method and duality theory, integer linear programming, the assignment and transportation problems, network flows and dynamic programming. Formerly ISE 502. Offered winter. Credit not applicable toward an M.S. or Ph.D. degree.

Equivalent Courses

ISE502

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

3

ISE 5003 Ergonomics and Work Design

Course Info

Course Title

Ergonomics and Work Design

Course Description

Design, analysis and measurement of work: work/time studies, pre-determined time studies, and line/work balancing techniques for both repetitive and non-repetitive work. Anthropometry and techniques for consideration of anthropometric data in the design and analysis of work. Formerly ISE 503. Offered fall. With laboratory. Credit not applicable toward an M.S. or Ph.D. degree.

Equivalent Courses

ISE503

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5410 Supply Chain Modeling/Analysis

Course Info

Course Title

Supply Chain Modeling and Analysis

Course Description

Concepts, procedures and optimization methodologies for modeling a supply chain and the analysis of its performance. Relevant issues affecting the efficiency of a supply chain. Examples of globally dispersed supply chains will be considered. This course is cross listed with an undergraduate course. Credit cannot be received for both ISE 410 and ISE 510.

Equivalent Courses

ISE510

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5421 Leadership Princ and Pos Engag

Course Info

Course Title

Leadership Principles and Positive Engagement

Course Description

A comprehensive examination of leadership principles and their applications within typical business situations and settings. Introduction to leadership from a positive engagement perspective at individual, team and organization levels. Project management leadership activity will be studied through the lens of an engineer. The course provides the ability to evaluate and enhance personal potential through assessments and exercises.

Equivalent Courses

ISE4421, SYS5421

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ISE 5422 Robotic Systems

Course Info

Course Title

Robotic Systems

Course Description

Overview of industrial robotic manipulators, their components and typical applications. Kinematics of robots and solution of kinematic equations. Trajectory planning and the Jacobian matrix. Robot programming languages and task planning. Laboratory experience in the development and implementation of a kinematic robot controller using a reconfigurable industrial manipulator. Demonstrations and applications using industrial robots. With laboratory. Offered fall. Course is cross listed with an undergraduate course. Credit cannot be received for more than one of ISE 522, ISE 422, and ME 478.

Equivalent Courses

ISE522

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5423 Industrial Automation Systems

Course Info

Course Title
Industrial Automation Systems

Course Description
Tools and techniques for application of industrial automation in a variety of individual settings with emphasis on systems architecture. Topics include hierarchical relationships of automated controls from Human Machine Interfaces (HMI) to the sensor level and application of Plan-Do-Check-Act to achieve lean automated solutions.

Equivalent Courses
SYS5423

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits
Credit Hours
Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5430 EGR Ops Rsrch/Deterministic

Course Info

Course Title
Engineering Operations Research - Deterministic Models

Course Description
A comprehensive introduction to Operations Research modeling and techniques used in decision-making problems and systems performance evaluations. Major topics include linear programming, integer programming, duality theory, dynamic programming, network models assignment, and transportation problems.

Equivalent Courses
SYS5430

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits
Credit Hours
Units:
4

Repeat Rules	
Repeat Status Code	
NR	

ISE 5431 Engr Ops Rsrch/Stochastic Mods

Course Info

Course Title

Engineering Operations Research - Stochastic Models

Course Description

Review the fundamentals of mathematical modeling for linear and nonlinear systems and solution procedures applicable to decision making in an uncertain environment. Topics include stochastic programming, robust optimization, stochastic dynamic programming, Markov decision processes, decision trees, queuing models, and inventory theory. Solutions will be obtained using theoretical methods and software packages.

Equivalent Courses

ISE530

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5434 Metamodel & Opt Mthd in Design

Course Info

Course Title

Metamodeling and Optimization Methods in Design

Course Description

Fundamentals of metamodeling and optimization with emphasis on practical design applications. Topics include design of experiments, Latin hypercube design, orthogonal arrays, metamodeling fundamentals, radial basis functions, Kriging, convex and non-convex sets, classification of optimization problems, gradient descent and Newton's methods, KKT conditions, and genetic algorithms.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5435 Data Analytics

Course Info

Course Title

Data Analytics

Course Description

Various techniques for analyzing data with multiple dependent and independent variables are introduced, with an emphasize on applied methodologies and applications in management and engineering fields. Topics covered include regression, logistic regression, multivariate analysis of variance, principal components analysis, cluster analysis, neural networks, ARIMA and data visualization. Effective use of advanced data analysis software for solving real-world engineering problems is addressed.

Equivalent Courses

ISE4435, SYS5435

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ISE 5441 Human Factors Engineering

Course Info

Course Title

Human Factors Engineering

Course Description

Design and analysis of products and systems considering the human body's sensory and cognitive limitations in the work environment including the study of stresses on the visual, auditory, tactile and vestibular system; the selection, design and arrangement of controls and displays; and basic principles of human-computer interaction. Formerly ISE 541. Offered winter.

Equivalent Courses

ISE541

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ISE 5442 Virtual and Augmented Reality

Course Info

Course Title

Virtual and Augmented Reality

Course Description

Multi-disciplinary team experience in design, prototyping, and evaluation of user experience in extended reality (XR) emphasizing theories and applications of virtual, augmented, and mixed reality (VR/AR/MR) technologies as well as user experience (UX) techniques that are unique to the human-centered design of XR.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5443 Automotive User Experience

Course Info

Course Title

Automotive User Experience

Course Description

Multi-disciplinary team experience in design, prototyping, and evaluation of automotive user experience emphasizing theories and practices that support the development of human-machine interfaces for automated vehicles that are safe, easy to use, useful, and desired by users. The course is centered on course project using a virtual reality driving simulator.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code
NR

ISE 5450 Fundamentals/Energy Management

Course Info

Course Title
Fundamentals of Energy Management

Course Description
Study of basic concepts involving energy usage in residential, commercial and industrial enclosures, heat transfer and infiltration, electric and natural gas utilization, performing an energy assessment on an occupant envelope, optimizing energy usage through increased efficiency and alternative energy technology, cost-benefit analysis. The course focuses on the process of using energy assessments to manage energy efficiently. With project. This graduate course (ISE 550) is cross listed with an undergraduate course (ISE 450). Credit cannot be received for both ISE 450 and ISE 550. Student must meet the prerequisite (Calculus I).

Equivalent Courses
ISE550

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits
Credit Hours

Units:
4

ISE 5455 Foundations of Safety Engr

Course Info

Course Title
Foundations Safety Engineering

Course Description
Tools and techniques for application of industrial automation in a variety of individual settings with emphasis on systems architecture. Topics include hierarchical relationships of automated controls from Human Machine Interfaces (HMI) to the sensor level and application of Plan-Do-Check-Act to achieve lean automated solutions. Prerequisite:Major Standing

Equivalent Courses
SYS5455

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5456 Engineering Risk Analysis

Course Info

Course Title

Engineering Risk Analysis

Course Description

Systematic approach t risk management in engineering decision making including tools for proactive risk planning, identification, analysis/assessment and prioritization in a formal and scientific manner required for engineering applications. A focus on risk solutions for preventing, mitigating, responding, monitoring and controlling the likelihood and/or consequences of unfavorable events.

Equivalent Courses

SYS5456

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ISE 5461 PLM Apps - Product Data Mgmt

Course Info

Course Title

PLM Applications - Product Data Management

Course Description

Methodologies and application of Product Lifecycle Management (PLM) software tools used for Product Data Management (PDM) and CAD to author and manage product data. Courses will emphasize hands-on use of state-of-the-art PLM tools and their application. Prereq: undergraduate or graduate course in CAD. Formerly ISE 561

Equivalent Courses

ISE561

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

ISE 5462 PLM Apps - Robotic Systems

Course Info

Course Title

PLM Applications - Robotic Systems

Course Description

Methodologies and application of Product Lifecycle Management (PLM) software tools for modeling and analyzing robotic systems. Course will emphasize hands-one use of state-of-the-art PLM tools and their application.

Equivalent Courses

ISE562

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

ISE 5463 PLM Apps - Ergonomics

Course Info

Course Title

PLM Applications - Ergonomics

Course Description

Methodologies and application of Product Lifecycle Management (PLM) software tools for ergonomics modeling and analysis. Course will emphasize hands-one use of state-of-the-art PLM tools and their application. Prereq: undergraduate or graduate course in ergonomics
Formerly ISE 563

Equivalent Courses

ISE563

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

ISE 5464 Design Mfg/Assembly Analysis

Course Info

Course Title

Design for Manufacturing and Assembly Analysis

Course Description

Motivations behind design for manufacturing and assembly. Benefits of Design For Manufacturing (DFM) concepts to a company, an industry and the economy. Selection of manufacturing processes and materials. Concepts in DFM subfields such as design for - manual assembly, electrical assembly, robotic assembly, machining, sheet metal working and hot forging. Application of design for disassembly concepts. Statistical methods used in tolerancing.

Equivalent Courses

ISE564

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5466 PLM Apps - Change Mgt

Course Info

Course Title

PLM Applications - Change Management

Course Description

Methodologies and application of Product Lifecycle Management (PLM) software tools used to complex product's definition, functional and physical requirements towards designing, developing and managing it through its lifecycle. Course will emphasize hands-one use of state-of-the-art PLM tools and their application. Formerly ISE 566

Equivalent Courses

ISE566

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

ISE 5467 PLM Apps Throughput Simulation

Course Info

Course Title

PLM Applications - Throughput Simulation

Course Description

Methodologies and application of Product Lifecycle Management (PLM) software tools for throughput simulation of discrete event systems. Course will emphasize hands-on use of state-of-the-art PLM tools and their application.

Equivalent Courses

ISE4467

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

ISE 5469 Cmptr Sim Discrete Event Sys

Course Info

Course Title

Computer Simulation of Discrete Event System

Course Description

Simulation as modeling tool for discrete-event systems; general principles of simulation; statistical models; input modeling; random variable generation; model building using a commercial simulation language; model verification and validation; determination of run length; output analysis; variance reduction techniques. Design and optimization of production service systems. Offered winter. This course is cross listed with an undergraduate course. Credit cannot be received for both ISE 569 and ISE 469.

Equivalent Courses

ISE569

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5471 Collab Robots & Flex Auto

Course Info

Course Title

Collaborative Robots and Flexible Automation

Course Description

The course addresses the growing interest among manufacturing companies in the use of collaborative robots for achieving flexible automation. This course will incorporate key components such as robotic systems, industrial automation systems, and flexible and lean manufacturing systems. Additionally, it will encompass essential topics in the realm of human-robot safety, industrial standards, and autonomous mobile robots. ISE 5471 is cross-listed with ISE 4471.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ISE 5472 Digital Twins in Smart Mfg

Course Info

Course Title

Digital Twins in Smart Manufacturing

Course Description

Foundations of smart manufacturing systems and digitalization. Topics include, motivations for building digital twins, techniques for virtualization, system simulation, computing and data connectivity, data security and privacy for manufacturing systems. Case studies and examples also provided.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ISE 5473 Mixed Reality Apps in Mfg

Course Info

Course Title

Mixed Reality Applications in Manufacturing

Course Description

The course addresses the growing interest among manufacturing companies in mixed reality applications for digitalized manufacturing. Mixed reality technologies include a versatile set of tools for improving various aspects of the manufacturing process, from design and training to quality control and maintenance.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ISE 5475 Additive Manufacturing

Course Info

Course Title

Additive Manufacturing

Course Description

The course provides a background Additive Manufacturing methods. Topics include: foundations of additive manufacturing, methods, 3D printing, 3D printing materials, part-design considerations, part quality and characteristics, applications.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5480 E-Commerce and ERP

Course Info

Course Title

E-Commerce and ERP

Course Description

This course focuses on the evolving technologies on the world wide web that support new models of business. These models include 1) electronic commerce with concerns of fault tolerance, security, and 24x7 availability and 2) ERP with concerns of financial, human resource and manufacturing systems integrating together into inter-company supply chain systems. Offered fall. Credit can be received for only one of ISE 480, ISE 4480, ISE 580, ISE 5480, CSE 583, and CSE 5830. Formerly ISE 580.

Equivalent Courses

CSE583, CSE5830, ISE580

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5483 Prod Systems/Workflow Analysis

Course Info

Course Title

Production Systems and Workflow Analysis

Course Description

Design issues to control the flow of material in manufacturing systems from forecast to finished product. Topics include aggregate planning and disaggregation to a master schedule, inventory control, MRP, JIT systems, scheduling and sequencing, project planning and resource balancing, philosophy of lean manufacturing, theory of constraints and supply chain, and facilities planning and layout. Offered fall. ISE 583 and its equivalent course SYS 583 are graduate courses which are cross listed with undergraduate courses ISE 483 and SYS 483. Credit can be received for only one of ISE 583, SYS 583, ISE 483 and SYS 483. Student must have completed a course in probability.

Equivalent Courses

ISE583, SYS5483, SYS583

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5485 Statistical Quality Analysis

Course Info

Course Title

Statistical Quality Analysis

Course Description

Fundamentals of statistical quality control and their use in system design. Control charts for variables, control charts for attributes, cusum charts and other process quality monitoring topics. Sampling inspection plans. Fundamentals of design of experiments and their application to product/process design and improvement. Taguchi's approach to robust design and related topics. Offered winter. ISE 585 and its equivalent course SYS 585 are graduate courses which are cross listed with undergraduate courses ISE 485 and SYS 485. Credit can be received for only one of ISE 585, SYS 585, ISE 485, and SYS 485. Student must have completed a course in probability.

Equivalent Courses

ISE585, SYS5485, SYS585

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5487 Foundations of Systems Engr

Course Info

Course Title

Foundations of Systems Engineering

Course Description

Techniques for generation, analysis and verification of traceable product design requirements. System performance and structural modeling using object, behavioral and other models. Techniques for analysis of system for serviceability, reliability, maintainability and testability. System alternative trade-off study techniques. System life cycle and other tools for implementation of systems engineering techniques. Offered winter. Credit cannot be received for both ISE 587 and SYS 587.

Equivalent Courses

ISE587, SYS5487, SYS587

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5488 Advanced Systems Engineering

Course Info

Course Title

Advanced Systems Engineering

Course Description

Theories behind system realization: identifying and encoding customer needs; identifying stakeholders and modeling their preferences; uncertainty modeling and propagation; optimization in engineering design; design churn; design for X; design flexibility and its importance in large-scale engineering projects, and public policy. This course is cross listed with an undergraduate course (ISE 488). Credit cannot be received for both ISE 5488 and ISE 4488, SYS 5488. Prerequisite: ISE or SYS 5487

Equivalent Courses

ISE588, SYS5488

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5490 Industrial Sustainability

Course Info

Course Title

Industrial Sustainability

Course Description

This course focuses on methods, systems, behaviors, and Industry 4.0 technologies that enable the creation of sustainable products and solutions. The aim is to develop the knowledge and skills required to create strategic plans for short- and long-term industrial sustainability using the Sustainable Development Goals (SDGs) framework. The curriculum emphasizes case studies to demonstrate the practical application of scientific theories in real-world industrial scenarios to implement and measure sustainable practices. Upon completion of the course, students would have developed skills on how to implement sustainability initiatives and practices in different industrial settings. This course is cross-listed with ISE 4490 and SYS 5490.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ISE 5512 Artificial Intell in Mfg

Course Info

Course Title

Artificial Intelligence in Manufacturing

Course Description

This course focuses on the integration of the techniques and methodologies from artificial intelligence and manufacturing engineering. On the manufacturing side, issues of design, manufacturability, process planning and cost analysis are cast around feature-based CAD/CAM technologies. The artificial intelligence techniques include standard transparent representation schemes of rule bases and semantic networks as well as the most up-to-date opaque representations of neural networks and genetic algorithms, both areas integrated with issues of fuzzy logic and control. Involves a large class project. Credit cannot be received for both ISE 512 and CSE 512. Student must have a background in artificial intelligence, manufacturing or business.

Equivalent Courses

CSE512, ISE512

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5517 Stats Methods in Engineering

Course Info

Course Title

Statistical Methods in Engineering

Course Description

Analysis and application of ergodic and absorbing Markov chains, application of queuing models based on birth-death process, design of queuing, systems based on both cost and noncost measures. Propagation of error in a production/service system, estimation of system reliability with and without standby systems and application of simple linear and multiple linear regression models. Offered winter.

Equivalent Courses

ISE517, SYS517, SYS5517

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5520 Engineering Project Management

Course Info

Course Title

Engineering Project Management

Course Description

Concepts and techniques for management of development programs and projects, with special focus on planning, controlling, and coordinating individual and group efforts. Topics include overview of project management, organization strategy and project selection, defining project and developing project plan, scheduling resources, project risk analysis, work breakdown structures, and project networks. Formerly ISE 520.

Equivalent Courses

ISE520

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5524 Competing in a Connected World

Course Info

Course Title

Competing in a Connected World

Course Description

Focus on the connected world and the Internet of Things (IoT) for engineers and business leaders. Connected mega systems are generating enormous amounts of data, resulting in new user experiences and changing customer expectations. This course helps students to recognize these changes and determine how to capitalize on them. Formerly ISE 524

Equivalent Courses

ISE524

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

3

ISE 5525 Comptng in a Connctd World Lab

Course Info

Course Description

Focus on deeper researfch and application of concepts explored in the ISE 524 Competing in a Connected World course. Lab participants are grouped into teams that conduct secondary researcha nd primary interviews to better understand horw the connected world effwcts engineers and business professionals. Formerly ISE 525.

Equivalent Courses

ISE525

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

1

ISE 5540 Occupational Biomechanics

Course Info

Course Description

Fundamentals of ergonomics and occupational biomechanics with emphasis on the application of basic principles to advances in engineering applications, research, and development. Topics include: engineering anthropometry, musculoskeletal disorders, low back disorders, electromyography, biomechanical modeling and ergonomic guidelines.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ISE 5560 Product Lifecycle Management

Course Info

Course Title

Product Lifecycle Management

Course Description

The product lifecycle begins with customer perception of value, and proceeds through design, manufacture, useful life, and disposal. It includes many groups, and its success is dependent on the cultures of the responsible organizations. Topics include agility, systems thinking, digitalization, disruptive innovation, and organizational behavior. Team projects investigate innovation lapses and product failures.

Equivalent Courses

ISE560, SYS5560

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5573 Prod Analysis/Improv Hlth Sys

Course Info

Course Title

Productivity Analysis and Improvement in Healthcare Systems

Course Description

Quantitative decision-making methods and cost-benefits models in healthcare systems, forecasting and resource allocation models. Scheduling models including "block scheduling" for OR units and facility layout issues. Process identification, estimation of process capability and discussion of productivity measures. Application of lean principles, methods for variability reduction and supply chain models. Formerly ISE 573.

Equivalent Courses

ISE573

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5574 Healthcare Informatics

Course Info

Course Title

Healthcare Informatics

Course Description

Healthcare informatics: fundamentals of operating systems, programming languages, algorithms, data modeling, and relational databases; specific architectures for administrative and clinical applications, evidence-based medicine, decision support systems, security and confidentiality, bioinformatics, the electronic health record, health information standards, and medical devices; review of current healthcare information systems. Formerly ISE 574.

Equivalent Courses

ISE574

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ISE 5581 Lean Principles & Applications

Course Info

Course Title

Lean Principles and Application

Course Description

Prepares students with knowledge and skills related to the understanding of lean theory, rules/principles, concepts, tools and supporting systems based upon interdisciplinary perspectives and instruction. Credit cannot be received for ISE 581 and HRD 620. Offered fall.

Equivalent Courses

HRD620, ISE581

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5610 Energy Conservation Systems

Course Info

Course Title

Energy Conservation Systems

Course Description

Techniques for improving energy use in industrial and commercial applications. Topics include: energy accounting; energy auditing; energy conservation management; net energy analysis; second law methods of analysis; combined use energy systems; new technology for energy conservation; assessment of alternative technology. Credit cannot be received for more than one of ISE 557, ECE 557, and SYS 557. Prerequisite: At least one course from the Core and Theory group of courses, or student must have permission of instructor.

Equivalent Courses

ECE557, ECE5610, ISE557, SYS557, SYS5610

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Study of special topics in industrial and systems engineering. May be taken more than once. May not exceed a maximum of 8 credits.

Equivalent Courses

ISE595, SYS5900, SYS595

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

ISE 5970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Independent study in a special area in industrial and systems engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits.

Equivalent Courses
ISE594, SYS594, SYS5970

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ISE 6664 Advanced Computer-Aided Design

Course Info

Course Title
Advanced Computer-Aided Design

Course Description
Three-dimensional graphics in computer-aided design systems. Hidden surface elimination, shading, algebraic surface drawing, solid modeling and 3-D animation. Project demonstrates the application of 3-D graphics to the analysis and design of engineering applications. Student must have completed a course in CAD.

Equivalent Courses
ISE664, SYS664

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:
4

ISE 6680 Engineering Decision Analysis

Course Info

Course Title

Engineering Decision Analysis

Course Description

Consideration of risk and uncertainty in decision criteria for resource allocation. Mathematical programming in engineering applications for multi-attribute utility analysis. Offered fall.

Equivalent Courses

ISE680, SYS6680, SYS680

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ISE 6684 Computer-Integrated Manuf

Course Info

Course Title

Computer-Integrated Manufacturing Systems

Course Description

The integration of the computer in the manufacturing process from concept, through engineering design, production planning, materials handling and process quality and inventory management. The course will utilize simulation and laboratory to study parts and information flow in a computer-integrated manufacturing facility with fixed and flexible automation. Offered fall.

Equivalent Courses

ISE684, SYS684

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

ISE 6996 Graduate Engineering Project

Course Info

Course Title
Graduate Engineering Project

Course Description
Independent work on an advanced project in industrial and systems engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits.

Equivalent Courses
ISE690, SYS690, SYS6996

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ISE 6998 Master's Thesis Research

Course Info

Course Title
Master's Thesis Research

Course Description
Directed research leading to a master's thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ISE 691.

Equivalent Courses
ISE691

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

ISE 7900 Advanced Special Topics

Course Info

Course Title

Advanced Special Topics

Course Description

Advanced study of special topic in industrial and systems engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ISE 795.

Equivalent Courses

ISE795

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ISE 7970 Advanced Independent Study

Course Info

Course Title

Independent Study

Course Description

Advanced independent study in a special area in systems engineering. Topic must be approved. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ISE 794.

Equivalent Courses

ISE794

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ISL 6040 Strat Positng/IT & Vision/Ldrs

Course Info

Course Title

Strategic Positioning of IT and Visioning/Leadership

Course Description

This course addresses strategic positioning of IT within your organization. Topics include visioning, positioning IT for competitive advantage, motivating employees, dealing with constrained resources, external communication, and networking with multiple stakeholders. Formerly ISL 604. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL604

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

ISL 6060 IS Strategy and Info Economics

Course Info

Course Title

IS Strategy and Information Economics

Course Description

This course reviews the strategy of a network economy. Topics include lock-in, network effects, standards and open systems. Formerly ISL 606. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL606

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

ISL 6180 IS Strategy/Future of Work

Course Info

Course Title

IS Strategy and the Future of Work

Course Description

This course is based on The Future of Work by Thomas Malone. Topics include centralization and decentralization; markets and hierarchies; coordination activities; and knowledge management systems. Formerly ISL 618. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL618

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

ISL 6200 IS Strat/Enterprise Architect

Course Info

Course Title

IS Strategy and Enterprise Architecture

Course Description

This course addresses the aligning of IT strategy and business strategy. Topics include IT business value, IT infrastructure and architecture as they relate to strategy and IT governance. Formerly ISL 620. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL620

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

ISL 6250 IT Governance

Course Info

Course Title

IT Governance

Course Description

Making IT a strategic asset is addressed. It governance archetypes for allocating decision rights and mechanisms for implementing IT governance are discussed. Formerly ISL 625. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL625

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

ISL 6300 Global Sourcing Strategies/IT

Course Info

Course Title

Global Sourcing Strategies for IT

Course Description

Factors for consideration in designing sourcing strategies and organizing your IT function to leverage global sourcing models, governance mechanisms to manage global sourcing engagements, and evaluating performance of global delivery engagements are discussed. Formerly ISL 630. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL630

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

ISL 6320 Data Mining

Course Info

Course Title

Data Mining

Course Description

Organizations invest a significant part of their information technology (IT) budget to capture, store and analyze data. The return on these investments will depend on how effectively organizations analyze the data and use it to support managerial decision making. Business intelligence or business analytics are common terms used to describe the process of building models to support decision making. The course is structured to give the students a conceptual understanding of various modeling techniques with a focus on their application to business problems. Formerly ISL 632.

Equivalent Courses

ISL632

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

2

ISL 6380 IS Security Fundamentals

Course Info

Course Title

IS Security Fundamentals

Course Description

Based on Secrets and Lies by Bruce Schneier. Topics include authentication, malware, encryption, human engineering, data management, and network issues. Formerly ISL 638. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL638

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

ISL 6400 IS Security/Management/ Cases

Course Info

Course Title

IS Security Management and Cases

Course Description

This course is based on the OCTAVE methodology, and the OCTAVE principles are applied through cases. Formerly ISL 640. Prerequisite: Student must be admitted to the MBA Executive program.

Equivalent Courses

ISL640

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

ISL 6410 Privacy and IT

Course Info

Course Title

Privacy and IT

Course Description

Examines fair information principles; historical context for US privacy laws; global privacy issues; surveillance; employee monitoring; medical information and HIPAA. Formerly ISL 641. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL641

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

ISL 6430 Intellectual Property and IT

Course Info

Course Title

Intellectual Property and IT

Course Description

Examines the history of IP and IP theory. Topics include the commons and the public domain; counterfeiting; technological control; IP law and productivity. Formerly ISL 643. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL643

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

ISL 6900 Special Topics in ISL

Course Info

Course Title

Special Topics in ISL

Course Description

Examines emerging issues in IS leadership. Formerly ISL 680. Prerequisite: Student must be admitted to the Executive MBA program.

Equivalent Courses

ISL680

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	10

ISL 6970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Independent individual research on a topic chosen by the student. Written approval must be obtained from a faculty member prior to registering for this course. Offered every term. Formerly ISL 690. Prerequisite: Student must be admitted to the Executive MBA program and have approval of Director of EMBA program.

Equivalent Courses
ISL690

College/School
School of Business Admin.

Department
Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours
1	Max: 3

LBS 5900 Topics in Language/Literature

Course Info

Course Title
Topics in Language and Literature

Course Description
A course to be cross listed with a graduate course in language or literature, which includes English, linguistics, modern languages and literatures, rhetoric, communication and journalism. May be repeated for up to 12 credits. Prerequisites: Admission to the MALS program and prerequisites as specified for cross-listed course. Formerly LBS 511.

Equivalent Courses
LBS511

College/School
College of Arts and Sciences

Department
Liberal Studies

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

LBS 5902 Topics in the Humanities

Course Info

Course Title

Topics in the Humanities

Course Description

A course to be cross listed with a graduate course in the humanities, which includes art and art history, history, philosophy, and music, theatre and dance. May be repeated for up to 12 credits. Prerequisite: Admission to MALS program and prerequisites as specified for cross-listed courses. Formerly LBS 512.

Equivalent Courses

LBS512

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5904 Topics in Social Sciences

Course Info

Course Title

Topics in the Social Sciences

Course Description

A course to be cross listed with a graduate course in the social sciences, which includes economics, political science, psychology, sociology and anthropology. May be repeated for up to 12 credits. Prerequisites: Admission to the MALS program and prerequisites as specified for cross-listed course. Formerly LBS 513.

Equivalent Courses

LBS513

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5906 Topics in the Sciences

Course Info

Course Title

Topics in the Sciences

Course Description

A course to be cross listed with a graduate course in the social sciences, which includes biology, chemistry, mathematics and statistics, and physics. May be repeated for up to 12 credits. Prerequisites: Admission to the MALS program and prerequisites as specified for cross-listed course. Formerly LBS 514.

Equivalent Courses

LBS514

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

LBS 5940 Introductory Colloquium

Course Info

Course Title

Introductory Colloquium

Course Description

Introduction to liberal studies. Acquaints students with graduate-level skills, methods and materials. Considers problems specific to interdisciplinary study and research, as well as ongoing debates about the nature of the liberal arts. Student must be admitted to MALS program. Formerly LBS 500.

Equivalent Courses

LBS500, LBS500P

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

LBS 5941 Seminar Language/Literature

Course Info

Course Title

Seminar in Language and Literature

Course Description

Seminar organized around a single topic or question from language and literature. Student must be admitted to MALS program. Formerly LBS 501.

Equivalent Courses

LBS501, LBS501P

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5942 Seminar in the Humanities

Course Info

Course Title

Seminar in the Humanities

Course Description

Seminar organized around a single topic or question from the humanities. Student must be admitted to MALS program. Formerly LBS 502.

Equivalent Courses

LBS502, LBS502P

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5943 Seminar in Social Sciences

Course Info

Course Title

Seminar in the Social Sciences

Course Description

Seminar organized around a single topic or question from the social sciences. Student must be admitted to MALS program. Formerly LBS 503.

Equivalent Courses

LBS503

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5944 Seminar in the Sciences

Course Info

Course Title

Seminar in the Sciences

Course Description

Seminar organized around a single topic or question from the sciences. Student must be admitted to MALS program. Formerly LBS 504.

Equivalent Courses

LBS504

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

LBS 5970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Directed individual research culminating in a significant paper. Formerly LBS 590. Prerequisites: LBS 5940; two core seminars; two electives; permission of the instructor and the program director.

Equivalent Courses
LBS590

College/School
College of Arts and Sciences

Department
Liberal Studies

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	99

LBS 6996 Master's Project

Course Info

Course Title
Master's Project

Course Description
Students are expected to enroll in this course during the semester in which they write their master's project. Formerly LBS 600.Prerequisites: LBS 5940; two core seminars; four electives; permission of the program director.

Equivalent Courses
LBS600

College/School
College of Arts and Sciences

Department
Liberal Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	8

LBS 6998 Master's Thesis

Course Info

Course Title

Master's Thesis

Course Description

Requires the writing of a substantial research paper under the guidance of a thesis advisor and a thesis committee.Prerequisite(s): LBS 5940, two LBS core seminars, five electives, and permission of the program director.

College/School

College of Arts and Sciences

Department

Liberal Studies

Credits

Credit Hours

Units:

4

LIB 5010 Inform Literacy for Educators

Course Info

Course Title

Information Literacy for Educators

Course Description

A two-day professional development workshop, utilizing the principles of information literacy, in which secondary school teachers will learn resources, techniques and strategies for empowering their students to do better research across the content areas.

Equivalent Courses

LIB501

College/School

Kresge Library

Department

Library

Credits

Credit Hours

Units:

1

LIN 5501 Linguistic Structures

Course Info

Course Title

Linguistic Structures

Course Description

An introduction to linguistic analysis and the nature of human language within a modern linguistic framework using data from English and other languages. This course provides an overview of sound, structure, meaning, dialect variation, historical change, and linguistic universals. Formerly LIN 501.

Equivalent Courses

LIN501, LIN501P

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

LIN 5502 Historical Linguistics

Course Info

Course Title
Historical Linguistics

Course Description
Diachronic linguistic analysis: language change, dialect geography, establishment of genealogical relationships, the reconstruction of earlier stages of languages and the relationship of language change to synchronic analysis. Formerly LIN 502.

Equivalent Courses
LIN502

College/School
College of Arts and Sciences

Department
Linguistics

Credits
Credit Hours

Units:
4

LIN 5503 Introduction to Phonology

Course Info

Course Title
Introduction to Phonology

Course Description
Fundamentals of phonological analysis using data from a variety of languages. Formerly LIN 503.

Equivalent Courses
LIN503

College/School
College of Arts and Sciences

Department
Linguistics

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

LIN 5504 Introduction to Syntax

Course Info

Course Title

Introduction to Syntax

Course Description

Fundamentals of syntactic analysis using data from a variety of languages. Formerly LIN 504.

Equivalent Courses

LIN504

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5507 Introduction to Semantics

Course Info

Course Title

Introduction to Semantics

Course Description

Fundamentals of semantic analysis using data from a variety of languages. Formerly LIN 507.

Equivalent Courses

LIN507

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5505 Phonetic Theory

Course Info

Course Title

Phonetic Theory

Course Description

An introduction to articulatory and acoustic descriptions of spoken language, and training in the recognition and production of sounds found in languages other than English. Formerly LIN 505.

Equivalent Courses

LIN505

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5515 Computr Parsing Natural Lang

Course Info

Course Title

Computer Parsing of Natural Language

Course Description

An examination of the syntactic and semantic properties of natural language and a survey of the techniques for computer parsing. Student projects in the computer analysis of language. Formerly LIN 515.

Equivalent Courses

LIN515

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5534 Language Acquisition

Course Info

Course Title

Language Acquisition

Course Description

Provides an introduction to First and Second language (L1 & L2) acquisition. Topics include language acquisition theories, first language acquisition and stages of the acquisition process, language acquisition in atypical circumstances, and second language/multilingual acquisition by both children and adults. Students are introduced to some of the basic tools of language acquisition research.

Equivalent Courses

ALS534, ALS5534

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

LIN 5535 Psycholinguistics

Course Info

Course Title

Psycholinguistics

Course Description

A study of the psychology of language, the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process and the consequences of language use.

Equivalent Courses

ALS535, ALS5535

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

LIN 5550 Linguistic Typology

Course Info

Course Title

Linguistic Typology

Course Description

Investigates patterns of variation in the world's languages. These patterns lead to an understanding and explanation of linguistic universals that provide insight into the complexity of the human language faculty. Formerly LIN 550.

Equivalent Courses

LIN550

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5557 Cognitive Linguistics

Course Info

Course Title

Cognitive Linguistics

Course Description

A cognitive/functional approach to grammatical theory focusing on the relation between language and cognition in the study of semantic, lexical and grammatical structure. Formerly LIN 557.

Equivalent Courses

LIN557

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5574 Cross-Cultural Communication

Course Info

Course Title

Cross-Cultural Communication

Course Description

Theoretical and practical examination of the role of language and nonverbal modes in cross-cultural communication. Problems and strategies for developing awareness of and operational skills in cross-cultural processes.

Equivalent Courses

ALS5574, ALS574

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

LIN 5575 Language and Culture

Course Info

Course Title

Language and Culture

Course Description

Language viewed as cultural behavior, its system, acquisition, and use; its relation to history, attitudes, and behavior; standard languages; social dialects; pidgins; and creoles.

Equivalent Courses

ALS5575, ALS575

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

LIN 5576 History of English Language

Course Info

Course Title

History of the English Language

Course Description

A detailed survey of the English language from its beginning to modern times. Formerly LIN 576.

Equivalent Courses

LIN576

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5580 Language and Society

Course Info

Course Title

Language and Society

Course Description

Language in its social context: intrasocietal variation; social evaluation of language varieties (style, dialect) as an influence in language change; and the choice of a language variety as an index of group solidarity, social ideology and individual attitudes.

Equivalent Courses

ALS5580, ALS576

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

LIN 5603 Phonological Theory

Course Info

Course Title

Phonological Theory

Course Description

Theory and application of phonological analysis, with emphasis on original work. Formerly LIN 603. Prerequisite: LIN 5503 with a grade of 3.0 or higher.

Equivalent Courses

LIN603

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

LIN 5604 Syntactic Theory

Course Info

Course Title

Syntactic Theory

Course Description

Presentation of theory and application of syntactic analysis, with emphasis on original work. Formerly LIN 604. Prerequisite: LIN 5504 with a grade of 3.0 or higher.

Equivalent Courses

LIN604

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5607 Semantic Theory

Course Info

Course Title

Semantic Theory

Course Description

Inquiry into contemporary efforts to formulate and articulate a theory of meaning adequate for the analysis of natural language, with emphasis on the relation between syntactic and semantic analysis. Formerly LIN 607. Prerequisite: LIN 5507 with a grade of 3.0 or higher.

Equivalent Courses

LIN607

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5609 Studies/Struc in a Language

Course Info

Course Title

Studies in the Structure of a Language

Course Description

A study of the structural aspects of an individual language to be determined by the instructor. Formerly LIN 609. Prerequisites: LIN 5503 or LIN 5504.

Equivalent Courses

LIN609

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5613 Advanced Phonology

Course Info

Course Title

Advanced Phonology

Course Description

An advanced course in phonology with emphasis on current issues in phonological theory. Formerly LIN 613. Prerequisite: LIN 5603.

Equivalent Courses

LIN613

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5614 Advanced Syntax

Course Info

Course Title

Advanced Syntax

Course Description

An advanced course in syntax with emphasis on current issues in syntactic theory. Formerly LIN 614. Prerequisite: LIN 5604.

Equivalent Courses

LIN614

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5617 Advanced Semantics

Course Info

Course Title

Advanced Semantics

Course Description

An advanced course in semantics with emphasis on current issues in semantic theory. Formerly LIN 617. Prerequisite: LIN 5607.

Equivalent Courses

LIN617

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5670 History of Linguistics

Course Info

Course Title

History of Linguistics

Course Description

An examination of the major movements and trends in the history of linguistics from ancient India to the present. Formerly LIN 670.

Prerequisites: Student must have completed 12 credits in LIN courses including LIN 5503 and LIN 5504.

Equivalent Courses

LIN670

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5988 Studies Linguistics/ Language

Course Info

Course Title

Studies in Linguistics and Language

Course Description

Designed to introduce students with or without previous formal study in linguistics to topics selected by instructor. Formerly LIN 500.

Equivalent Courses

LIN500

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 5990 Directed Readings

Course Info

Course Title

Directed Readings

Course Description

Directed individual research on specific topics. Student must have permission of instructor. Formerly LIN 590.

Equivalent Courses

LIN590

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

LIN 6996 Independent Study

Course Info

Course Title
Independent Study

Course Description
Special research projects in linguistics. Graded numerically or satisfactory/unsatisfactory by written agreement with linguistics faculty supervisor.Prerequisite (s): LIN 5501 Corequisite (s): Instructor permission

College/School
College of Arts and Sciences

Department
Linguistics

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	99	999
RP		

LIN 6998 Seminar in Linguistics

Course Info

Course Title
Seminar in Linguistics

Course Description
A research seminar designed to develop a student's skill in linguistic investigation and exposition. Student must complete a research paper. May be graded numerically or Satisfactory/Unsatisfactory with prior agreement with instructor. Formerly LIN 680. Prerequisites: LIN 5503 and LIN 5504 and permission of instructor.

Equivalent Courses
LIN680

College/School
College of Arts and Sciences

Department
Linguistics

Credits

Credit Hours

Units:
4

LIN 6999 Master's Thesis

Course Info

Course Title

The Master's Thesis

Course Description

Completion of a project proposed by a degree candidate in consultation with his/her adviser. Formerly LIN 690. Prerequisites: LIN 5503 and LIN 5504 and permission of department.

Equivalent Courses

LIN690

College/School

College of Arts and Sciences

Department

Linguistics

Credits

Credit Hours

Units:

4

MDM1 9100 BFCP 1

Course Info

Course Title

Biomedical Foundations of Clinical Practice 1

Course Description

This is the first component in a series of interdisciplinary courses for first-year medical students that will provide an introduction to basic biomedical science topics, establishing a foundation of the essential principles required for the study of human medicine. The course provides 10 weeks of integrated content in biochemistry, cell biology, genetics, histology, immunology, microbiology, molecular biology, and signal transduction. The course emphasizes basic concepts while encouraging students to develop problem-solving skills. The topic areas covered in this course, will be revisited, expanded and reinforced in the subsequent organ system (Integrative Foundations of Clinical Practice; IFCP) courses of the pre-clerkship curriculum.

Course Attributes

Biomed Fnds Clinical Practice (BFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

12

Repeat Rules

Repeat Status Code

NR

MDM1 9105 BFCP 2

Course Info

Course Title

Biomedical Foundations of Clinical Practice 2

Course Description

This is the second component in a series of interdisciplinary courses for first-year medical students that will provide an introduction to basic biomedical science topics, establishing a foundation of the essential principles required for the study of human medicine. The course provides 8 weeks of integrated content in biochemistry, genetics, histology, immunology, microbiology, pathology, and pharmacology. The course emphasizes basic concepts while encouraging students to develop problem-solving skills. The topic areas covered in this course, will be revisited, expanded and reinforced in the subsequent organ system (Integrative Foundations of Clinical Practice; IFCP) courses of the pre-clerkship curriculum.

Course Attributes

Biomed Fnds Clinical Practice (BFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

12

MDM1 9110 AFCP 1

Course Info

Course Title

AFCP 1

Course Description

Part one of a two-part sequence for first-year medical students that presents the foundations of clinical anatomy. The 10-week course covers the anatomy of the back, upper limb, thorax, and abdomen using a series of integrated lectures and cadaveric dissection laboratories. The application of foundational knowledge to clinical scenarios, and the introduction of radiologic imaging of the body will be emphasized.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

10

MDM1 9111 AFCP 2

Course Info

Course Title

AFCP 2

Course Description

Anatomical Foundations of Clinical Practice 2 (AFCP 2) is the second of two interdisciplinary courses for first-year medical students that presents the foundations of clinical anatomy. The course covers the anatomy of the pelvis, perineum, and lower limb using a series of integrated lectures and cadaveric dissection laboratories. The application of foundational knowledge to clinical scenarios and the introduction to radiologic imaging of the body will be emphasized.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

10

Repeat Rules

Repeat Status Code

NR

MDM1 9112 AFCP 2A

Course Info

Course Title

AFCP 2A

Course Description

Conclusion to the two-part sequence for first-year medical students that presents the foundations of clinical anatomy. The 2-week course covers the anatomy of the head and neck using a series of integrated lectures and cadaveric dissection laboratories. The application of foundational knowledge to clinical scenarios, and the introduction to radiologic imaging of the body will be emphasized.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM1 9120 Neuroscience I

Course Info

Course Title

Neuroscience 1

Course Description

This interdisciplinary course provides an integrated approach to the study of the central nervous system, including the fundamental concepts of neuroanatomy, neurochemistry, neurophysiology and clinical neurology.

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM1 9121 Cardiovascular

Course Info

Course Title

Cardiovascular

Course Description

This interdisciplinary course surveys normal and abnormal function of the cardiovascular system, in conjunction with a discussion of the embryology, histology and physiology of the system.

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM1 9122 Respiratory

Course Info

Course Title

Respiratory

Course Description

This interdisciplinary course surveys normal and abnormal function of the respiratory system, in conjunction with a discussion of the embryology, histology and pulmonary physiology of the upper and lower respiratory tract.

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM1 9123 Hematology and Lymphoid

Course Info

Course Title

Hematology and Lymphoid

Course Description

This multidisciplinary course covers the biology, physiology and pathophysiology of blood and the blood forming organs, with systematic consideration of hematopoiesis, blood cells, blood coagulation, blood groups, hematological malignancies, bone marrow transplantation, immunoglobulins and other plasma proteins.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

Repeat Rules

Repeat Status Code

NR

MDM1 9140 Art and Practice of Medicine 1

Course Info

Course Title

Art and Practice of Medicine 1

Course Description

This course introduces students to the concepts of patient-centered care, effective communication, interviewing, taking a social and medical history, physical examination, clinical reasoning and decision-making, diagnosis and the humane and ethical care of patients.

Course Attributes

Art and Practice of Medicine (APMD)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM1 9141 Art and Practice of Medicine 2

Course Info

Course Title

Art and Practice of Medicine 2

Course Attributes

Art and Practice of Medicine (APMD)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

7

MDM1 9160 MHCB 1

Course Info

Course Title

MHCB 1

Course Description

This course introduces students to the thoughtful practice of medicine and care of patients and their families in a compassionate, ethical and professional manner. The course examines the social, ethical and legal issues that accompany physicians' interactions with patients and contribute to their effectiveness as healers and professionals.

Course Attributes

Medical Humanities (MDHM)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM1 9161 MHCB 2

Course Info

Course Title

MHCB 2

Course Description

This course continues the student introduction to the thoughtful practice of medicine and care of patients and their families in compassionate, ethical and professional manner begun in Medical Humanities and Clinical Bioethics 1.

Course Attributes

Medical Humanities (MDHM)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM1 9180 Promotion Maintenance Hlth 1

Course Info

Course Title

Promotion and Maintenance of Health 1

Course Description

This course focuses on disease prevention, health promotion and population health, as well as on the integration of each in the practice of medicine. The content will provide the basic framework for understanding disease mechanisms from the perspective of preventing illness and remaining healthy.

Course Attributes

Promotion Maintenance Health (PMH)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM1 9181 Promotion Maintenance Hlth 2

Course Info

Course Title

Promotion and Maintenance of Health 2

Course Description

This course continues the discussion of disease prevention, health promotion and population health and their integration into the practice of medicine begun in Promotion and Maintenance of Health 1.

Course Attributes

Promotion Maintenance Health (PMH)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM1 9190 Embark 1

Course Info

Course Title

Embark 1: Research Design and Project Management

Course Description

This course provides structured research design content that supports students in their independent research projects as part of the Embark Program. This course includes development of medical information literacy, skills in research design, implementation and project management. This course also supports successful identification of faculty mentors, development of research questions, and an introduction to writing research project proposal. The course is a combination of didactic sessions and workshops, a self-directed selection of research project design modules and protected independent time with which to complete the modules, meet with mentors and work on individual research projects.

Course Attributes

MD Capstone (CPST)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MDM1 9191 Embark 2

Course Info

Course Title

Embark 2: Research Proposal

Course Description

This course is the culmination of the structured research design content that supports students in their independent research projects as part of the Embark Program. Compliance training in the ethical use of human subjects and animals in basic science and clinical research and Institutional Review Board requirements are discussed. Additionally, students receive introductions to statistics, data security issues, and seeking funding for research. Students continue to develop their own research projects through creation and approval of a project proposal.

Course Attributes

MD Capstone (CPST)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MDM1 9200 PRISM 1

Course Info

Course Title

PRISM 2

Course Description

The PRISM 1 course provides a structured large and small group mentoring environment where students delve into topics that will help them grow personally and professionally through interactive lessons and group discussions. The M1 course guides students through topics vital to their personal exploration including wellness, self-awareness, group dynamic and team skills, stress awareness and reduction, leadership development, empathy and compassion, spirituality, and values.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM1 9201 PRISM 2

Course Info

Course Title

PRISM 2

Course Description

The M2 PRISM course is a continuation of the structured mentoring environment of the first year. M2PRISM guides students' personal and professional development by focusing on understanding personal biases, managing difficult relationships, giving and receiving feedback, dealing with mistakes, and death and dying. The M2 PRISM course also focuses on preparing students for the transition to the M3 clerkship year by covering the topics of planning for the M3 year (including strategies for scheduling clerkships) and facing realities of the clinical setting.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM1 9210 Synthesis

Course Info

Course Title

Synthesis

Course Description

This interdisciplinary course provides the students with an opportunity to systematically review the knowledge they have acquired during the M1 year and to apply that knowledge to the solution of problems using an integrated approach. The course will emphasize diagnostic reasoning and problem solving as they relate to topics in Biomedical Foundations of Clinical Practice, Neuroscience, Cardiovascular and Respiratory course content. Prerequisites: MDM1 9100, 9105, 9120, 9121, 9122.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM1 9215 DIBSR

Course Info

Course Title

Directed Independent Biomedical Sciences Research Elective

Course Description

The focus of this course is to provide structured research and educational resources to assist students in improving their biomedical sciences knowledge, skills, and attitudes while developing frameworks for enhanced understanding of the conduct of biomedical science research. Students will create structured research study plan in consultation with a curricular dean and participating faculty.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Credit Hours

Max:

12

MDM1 9220 Clinical Integration 1

Course Info

Course Title

Clinical Integration 1

Course Description

This course is the first in a series of two courses that expose students, in a purposeful and enhancing manner, to the concepts of patient-centered care, effective and culturally competent communication, interviewing, physical examination, and the humane and ethical care of patients. Students can apply concepts learned throughout the Art and Practice of Medicine (APM) courses in actual clinical environments. Students participate in direct patient care in physicians' offices and in multidisciplinary settings under the supervision of clinical faculty members.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM1 9420 Clinical Integration 2

Course Info

Course Title

Clinical Integration 2

Course Description

This course is the second in a series of two courses that expose students, in a purposeful and enhancing manner, to the concepts of patient-centered care, effective and culturally competent communication, interviewing, physical examination, and the humane and ethical care of patients. Students can apply concepts learned throughout the Art and Practice of Medicine (APM) courses in actual clinical environments. Students participate in direct patient care in physicians' offices and in multidisciplinary settings under the supervision of clinical faculty members.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

MDM2 9310 Gastro Enterology & Hepatology

Course Info

Course Title

Gastro Enterology and Hepatology

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM2 9312 Renal and Urinary

Course Info

Course Title

Renal and Urinary

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM2 9314 Endocrinology

Course Info

Course Title

Endocrinology

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

4

MDM2 9318 MSK Connect Tissue Skin

Course Info

Course Title

MSK Connect Tissue Skin

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM2 9316 Male and Female Reproductive

Course Info

Course Title

Male and Female Reproductive

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM2 9323 Behavioral Med & Psychopath

Course Info

Course Title

Behavioral Med & Psychopath

Course Description

This course uses the patient-centered care model as a framework for patient care and introduces principles of human development through the lifespan to help students better prepare for clinical work. Students also explore treatment adherence strategies, interpersonal violence, and begin to develop communication strategies.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM2 9326 Integrative Evidence Based Med

Course Info

Course Title

Integrative Evidence Based Medicine

Course Attributes

Integrative Fnds Clinical Prac (IFCP)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM2 9340 Art and Practice of Medicine 3

Course Info

Course Title

Art and Practice of Medicine 3

Course Attributes

Art and Practice of Medicine (APMD)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM2 9328 Neuroscience 2

Course Info

Course Title

Neuroscience 2

Course Description

This interdisciplinary course continues to provide an integrated approach to the study of the central nervous system, including the fundamental concepts of neuroanatomy, neurochemistry, neurophysiology and clinical neurology.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM2 9341 Art & Practice of Medicine 4

Course Info

Course Title

Art and Practice of Medicine 4

Course Attributes

Art and Practice of Medicine (APMD)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM2 9342 Art and Practice of Medicine 5

Course Info

Course Title
Art and Practice of Medicine 5

Course Attributes
Art and Practice of Medicine (APMD)

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours
Units:
3

MDM2 9360 MHCB 3

Course Info

Course Title
MHCB 3

Course Attributes
Medical Humanities (MDHM)

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours
Units:
3

MDM2 9361 MHCB 4

Course Info

Course Title
MHCB 4

Course Attributes
Medical Humanities (MDHM)

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours
Units:
2

MDM2 9380 Promotion Maintenance Hlth 3

Course Info

Course Title
Promotion and Maintenance of Health 3

Course Attributes
Promotion Maintenance Health (PMH)

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours
Units:
3

MDM2 9381 Promotion Maintenance Hlth 4

Course Info

Course Title

Promotion and Maintenance of Health 4

Course Attributes

Promotion Maintenance Health (PMH), Service Learning Course (SL)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM2 9390 Embark 3

Course Info

Course Title

Embark 3: Techniques in Research Communication

Course Description

This course is the culmination of the structured research design content that of the Embark Program that supports students in their independent research projects with an emphasis on dissemination of findings. This course focuses on the development of scientific writing skills, including critical thinking skill development, academic writing and abstract writing skills. Students practice developing visualizations/graphics of their research projects and provide peer feedback, as well as write a scientific abstract describing their research project. This course is a combination of didactic sessions and workshops, and protected independent time to meet with mentors and work on individual research projects, culminating in the reporting of each student's research project progress to date, in the form of an abstract.

Course Attributes

MD Capstone (CPST)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MDM2 9391 Embark 4

Course Info

Course Title

Embark 4: Techniques in Effective Scholarly Presentation

Course Description

This course is a continuation of Embark 3, continuing the structured research design content that supports students in their independent research projects as part of the Embark Program, with an emphasis on dissemination of findings. This course focuses on the development of skills required to present a research project, including best practices for poster and oral presentations. This course is a combination of didactic sessions and workshops, and protected independent time to meet with mentors and work on individual research projects, culminating in the presentation of each student's research project progress to date, in the form of an oral presentation. Students present their research project in the form of an oral presentation, and provide peer feedback to other students. Top student oral presentation are invited to present at the Embark Research Colloquium during the Embark 5 course.

Course Attributes

MD Capstone (CPST)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

MDM2 9392 Embark 5

Course Info

Course Title

Embark 5: Focused Research and Embark Research Colloquium

Course Description

This course is the culmination of the structured research design content of the Embark Program that supports students in their independent research projects. Students have focused research time in which to meet with mentors and work on individual research projects. Student also participate in the top student oral presentation at the Embark Research Colloquium. Students provide peer feedback to the student presenters, using the skills attained in the Embark 4 course.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

MDM2 9400 PRISM 3

Course Info

Course Title

Promoting Reflection and Individual Growth through Support and Mentoring 3

Course Description

The M3 PRISM course is a continuation of the structured mentoring environment of the first year. M3 PRISM guides students' personal and professional development by focusing on understanding personal biases, managing difficult relationships, giving and receiving feedback, dealing with mistakes, and death and dying.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM2 9410 USMLE Review

Course Info

Course Title

U.S. Medical Licensure Examination Review

Course Description

This interdisciplinary course provides the students with an opportunity to systematically review the knowledge and skills they have acquired during the M1 and M2 years in preparation for taking the United States Medical Licensure Examination Step 1. The course includes formal review sessions in addition to guided independent study. Prerequisite: MDM1 9210.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

4

MDM2 9401 PRISM 4

Course Info

Course Title

Promoting Reflection and Individual Growth through Support and Mentoring 4

Course Description

The PRISM 4 courses focuses on preparing students for the transition to the M3 clerkship year by covering the topics of planning for the M3 year (including strategies for scheduling clerkships) and facing realities of the clinical setting.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM2 9411 Clinical Internship

Course Info

Course Title

Clinical Internship

Course Description

Offers credit to students participating in a department-approved internship in a clinical setting. Provides the student with a valuable experiential learning opportunity. Departmental approval required prior to registration. Prerequisite: Successful completion of the M1 curriculum.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Credit Hours

Max:

12

MDM2 9412 Community-based Internship

Course Info

Course Title

Community-based Internship

Course Description

Offers credit to students participating in a department-approved internship in a community setting. Provides the student with a valuable experiential learning opportunity. Departmental approval required prior to registration. Prerequisite: Successful completion of the M1 curriculum.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Credit Hours

Max:

12

Repeat Rules

Repeat Status Code

RP

MDM2 9413 Education Training Internship

Course Info

Course Title

Education Training Internship

Course Description

Offers credit to students participating in a department approved internship in an education training setting. Provides the student with a valuable experiential learning opportunity. Departmental approval required prior to registration. Prerequisite: Successful completion of the M1 curriculum.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Credit Hours

Max:

12

MDM2 9416 Diagnostic Medicine 1

Course Info

Course Title

Diagnostic Medicine 1

Course Description

This is an introduction of diagnostic medicine "boot camp" to medical students at the end of the M2 year before they start clinical clerkships in their M3 year. It includes one day on pathology, one day on radiology and a half day of laboratory tour. The purpose of this portion of clerkship in pathology is focused on getting students familiar with pathology and radiology practice. The pathology topics include the orientation to pathology department, test directory & order entry, send-out test, point of care testing, specimen collection, stat test, critical value, TAT, test panel, pre-analytical and analytical variability, reference interval, choose wisely, communication and the process of diagnostic workup. The radiology topics will include the orientation to radiology department, different kind of image studies, imaging in pregnancy and breast feeding patient, entering orders, radiation safety and risks.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM2 9420 Clinical Integration 2

Course Info

Course Title

Clinical Integration 2

Course Description

This course is the second in a series of two courses that expose students, in a purposeful and enhancing manner, to the concepts of patient-centered care, effective and culturally competent communication, interviewing, physical examination, and the humane and ethical care of patients. Students can apply concepts learned throughout the Art and Practice of Medicine (APM) courses in actual clinical environments. Students participate in direct patient care in physicians' offices and in multidisciplinary settings under the supervision of clinical faculty members.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM3 9510 Family Medicine

Course Info

Course Title

Family Medicine

Course Description

In this six-week required clerkship, students will discuss the principles of Family Medicine, gather information, formulate differential diagnoses, and propose plans for the initial evaluation and management of patients with presentations. Students will discuss principles of common chronic diseases, develop evidence-based health promotion/disease prevention plans, demonstrate competency in advanced elicitation of history, communication, physical examination and critical thinking skills. Students will discuss the critical role of family physicians within a health care system. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

9

MDM3 9512 Internal Medicine

Course Info

Course Title

Internal Medicine

Course Description

Eight-week required clerkship. Students will spend 4 weeks in the hospital wards rotating with a team consisting of an attending physician, senior resident, and intern resident; 2 weeks rotating on a subspecialty of internal medicine (gastroenterology, infectious disease, cardiology, pulmonary, geriatrics, and hospital medicine); and 2 weeks rotating in the ambulatory setting with a primary care physician. Prerequisite: Completion of the M2 Year and sit for the USMLE Step I.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

12

MDM3 9514 Surgery

Course Info

Course Title

Surgery

Course Description

In this eight-week required clerkship, students will spend eight weeks in the in-patient setting within the Surgery department at Beaumont Hospital. Students will be involved under supervision with the pre-operative evaluation, the intra-operative care of the surgical patients. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

12

Repeat Rules

Repeat Status Code

NR

MDM3 9516 Pediatrics

Course Info

Course Title

Pediatrics

Course Description

Eight-week required clerkship. Students will spend time in the following areas: Pediatrics, Pediatrics outpatient clinic or office, Pediatrics newborn nursery, and a Pediatrics subspecialty clinic. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

12

MDM3 9518 Psychiatry

Course Info

Course Title

Psychiatry

Course Description

Six-week required clerkship. Students will be assigned patients; learn to take appropriate histories for consultations; rotate within the emergency center; spend time in the Psychiatric Assessment Center; and attend lectures. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

9

MDM3 9520 Obstetrics and Gynecology

Course Info

Course Title

Obstetrics and Gynecology

Course Description

Six-week required clerkship. In this course students will be able to articulate the key concepts of the discipline of obstetrics and gynecology. This will include key concepts in general practice obstetrics and gynecology. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

9

MDM3 9522 Neurology

Course Info

Course Title

Neurology

Course Description

Four-week required clerkship. Each student will spend one week working with a private neurologist; one week in the hospital doing staff neurology consults; rotate with specialty Neurology units; and attend lectures. Prerequisite: Completion of the M2 Year and sit for the USMLE Step 1.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM3 9524 Ophthalmology

Course Info

Course Title

Ophthalmology

Course Description

In this one-week course students will begin to understand the basic anatomy of the visual system, become adept at performing a basic screening eye examination, be able to recognize red flag physical findings, become familiar with ophthalmic manifestations of systemic disease and their surveillance schedule, and recognize the need for evaluation by an ophthalmologist of patients with common eye symptoms/signs and eye trauma. Prerequisite: Successful completion of the M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM3 9560 MHCB 5

Course Info

Course Title

MHCB 5

Course Description

Each month, as a part of the Interdisciplinary Studies curriculum, the students will meet to discuss selected topics in clinical ethics. The course is case-based and will be led by teams of students who will meet with the Course Director one month in advance of each session to discuss an approach to the topic and case selection. Prerequisite: MDM2 9361

Course Attributes

Medical Humanities (MDHM)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

Repeat Rules

Repeat Status Code

NR

MDM3 9561 MHCB 6

Course Info

Course Title

MHCB 6

Course Description

Each month, as a part of the Interdisciplinary Studies curriculum, the M3 class will meet to discuss selected topics in clinical ethics. The course is case-based and will be led by teams of M3 students, who will meet with the course director one month in advance of each session to discuss an approach to the topic and case selection. Prerequisite MDM3 9560.

Course Attributes

Medical Humanities (MDHM)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM3 9590 Embark 6

Course Info

Course Title

Embark 6: Directed Capstone

Course Description

This course requires students to complete a portion of their research project in an independent manner, including finalizing data collection and data analysis. Depending on project progress, there may be meetings required with the Embark Program leadership during this course. Required office visits are communicated to students following required progress report submissions. Students are expected to work on their capstone project during any available time throughout the semester. Prerequisite: MDM2 9392 Embark 5

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM3 9591 Embark 7

Course Info

Course Title

Embark 7: Directed Capstone

Course Description

This course is a continuation of Embark 6, requiring students to complete a portion of their research project in an independent manner, including finalizing data collection and data analysis. Depending on project progress, there may be meetings required with the Embark Program leadership during this course. Required office visits are communicated to students following the required progress report submissions. Students are expected to work on their capstone project during any available time throughout the semester. (2 credits)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

MDM3 9592 Embark 8

Course Info

Course Title

Embark 8: Focused Research

Course Description

This course provides dedicated time for students to complete a portion of their Embark Capstone project. Throughout this focused research time, the student is expected to move their project progress forward appropriately for their individual project stage and to schedule meetings with their mentor, and other research advisors and resources, including statisticians, medical librarians and Embark Program leadership. Students are required to set individual focused research goals prior to the beginning course, as well as submit documentation of their progress during this time at the conclusion of the focused research week. Depending on project progress, there may be meetings required with the Embark Program leadership during this focused research week. Required office visits are communicated to students following required submissions.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9600 PRISM 5

Course Info

Course Title

Promoting Reflection and Individual Growth through Support and Mentoring 5

Course Description

PRISM is a course designed to highlight the importance of self-care and wellness and to promote the reflective process. Whereas much of medical education focuses on the development student into physicians, PRISM focuses on the individual development of each student. Mentoring is a key component of PRISM so students will continue to meet monthly with their PRISM mentors and small group. The topics covered in PRISM 5 and 6 will include wellness, financial literacy, group dynamics on the medical team, disillusionment, specialty career choice, preparing a personal statement and CV, planning the M4 year, and the residency application process. Prerequisite: MDM2 9400.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM3 9601 PRISM 6

Course Info

Course Title

Promoting Reflection and Individual Growth through Support and Mentoring 6

Course Description

PRISM is a course designed to highlight the importance of self-care and wellness and to promote the reflective process. Whereas much of medical education focuses on the development student into physicians, PRISM focuses on the individual development of each student. Mentoring is a key component of PRISM so students will continue to meet monthly with their PRISM mentors and small group. The topics covered in PRISM 5 and 6 will include wellness, financial literacy, group dynamics on the medical team, disillusionment, specialty career choice, preparing a personal statement and CV, planning the M4 year, and the residency application process. Prerequisite: MDM3 9600.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM3 9603 USMLE Step 2CK Review

Course Info

Course Title

USMLE Step 2CK Review

Course Description

This interdisciplinary course provides students with an opportunity to systematically review the knowledge and skills they have acquired throughout M1, M2, and M3 years in preparation for taking the United States Medical Licensure Examination Step 2CK exam.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

4

MDM3 9610 IDS 1

Course Info

Course Title

Interdisciplinary Studies 1

Course Description

The course provides longitudinal curriculum including Infectious Disease and single session topics. The instructional sessions will be presented using several different instructional formats such as interactive lecture, small group discussion and team-based learning depending on the content and the instructor.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM3 9612 IDS 2

Course Info

Course Title

Interdisciplinary Studies 2

Course Description

This course is a continuation of Interdisciplinary Studies 1, providing longitudinal curriculum in Infectious Disease and single session topics. The instructional sessions will be presented using several different instructional formats such as interactive lecture, small group discussion and team-based learning depending on the content and the instructor.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

5

MDM3 9620 DIS in Medicine

Course Info

Course Title

Directed Independent Study in Medicine 1

Course Description

The focus of this course is to provide structured study time and educational resources to assist students in improving their basic science and/or clinical knowledge, skills and attitudes while developing frameworks for enhanced understanding of the practice of medicine. Students will create a structured study plan in consultation with the Associate Dean for Medical Education, Associate Dean for Undergraduate Clinical Education and the Assistant Dean for Student Affairs and work with appropriate basic science and clinical faculty to implement the independent study plan.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Credit Hours

Max:

12

MDM3 9625 Diagnostic Radiology CEE

Course Info

Course Title

Diagnostic Radiology Career Exploration Elective

Course Description

Under the supervision of faculty, students will be introduced to the scope of the field of Radiology including: plain film, ultrasound (US), computed tomography (CT), magnetic resonance imaging (MRI), nuclear medicine (NM), mammography (M), and interventional radiology (IR). Students are also required to attend scheduled conferences and related educational activities.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9626 Interventional Radiology CEE

Course Info

Course Title

Interventional Radiology Career Exploration Elective

Course Description

The Interventional Radiology and Interventional Oncology (IR/IO) rotation is focused on minimally invasive image-guided interventions, patient care, and teamwork in a clinical research-intensive setting. Direct participation in patient care is required and encompasses daily procedures, workup of consults, and pre/post-procedural care.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9628 Neurosurgery CEE

Course Info

Course Title

Neurosurgery Career Exploration Elective

Course Description

This elective is designed to provide third year students exposure to the field of neurological surgery. Students will have the opportunity to rotate through the inpatient consult service, operating room and outpatient practice. They will be expected to attend conferences. Students are required to have completed their general surgery or ob-gyn clerkship prior to the start of this rotation. Prerequisite (s): MDM3 9514 or MDM3 9520.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9627 Radiation Oncology CEE

Course Info

Course Title

Radiation Oncology Career Exploration Elective

Course Description

The goal of this elective is to expose interested medical students to the specialty of radiation oncology and role of radiation therapy in the management of Cancer.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9629 PM&R CEE

Course Info

Course Title

Physical Medicine and Rehabilitation Career

Course Description

This course is designed as an overview of Physical Medicine and Rehabilitation Medicine. The effects of neuromuscular, musculoskeletal and cardiopulmonary disorders on function are covered. The use of special techniques and the prescription of physical modalities and therapeutic exercise in chronic conditions are outlined. Also discussed are the roles of physical, occupational, and speech therapists, psychologists, social workers.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9631 Anatomic & Clinical Path CEE

Course Info

Course Title

Anatomic and Clinical Pathology Career Exploration Elective

Course Description

This elective is designed to provide third year students exposure to the field of pathology (both anatomic and clinical pathology). Students will spend their rotation time in the laboratories with pathologists, pathology residents, pathology assistants, and pathology technologists and will have opportunity to observe some subspecialty departments.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9630 Dermatology CEE

Course Info

Course Title

Dermatology Career Exploration Elective

Course Description

The goal of this elective is to expose interested medical students to a career in Dermatology. During this elective, students will have the opportunity to work closely with the dermatology residents and/or faculty to provide a broad perspective of the field of Dermatology.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM3 9632 Nutrition and Preventive Med

Course Info

Course Title

Nutrition and Preventive Medicine/Weight Control Center

Course Description

The Nutrition and Preventive Medicine/Weight Control Centers rotation will educate students on evaluation and treatment of overweight and obesity. This rotation will help students develop skills required to prevent, evaluate, and manage obesity and obesity comorbidities.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9712 Emergency Medicine

Course Info

Course Title

Emergency Medicine

Course Description

In this course students will become familiar with the initial evaluation and therapy of a broad variety of adult and pediatric emergencies; formulate a differential diagnosis and initial diagnostic and management plan for the undifferentiated patient. Students will develop or improve technical skills in wound care, lumbar puncture, central venous access, eye examination, suturing, splinting, and EKG interpretation. Prerequisite: Successful completion of the M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9713 2wk Emergency Medicine Elect.

Course Info

Course Title

2-week Virtual Emergency Medical Elective

Course Description

This 2-week elective clerkship will provide students with an opportunity to expand their emergency medicine knowledge base, using interactive discussions and introduction to skills critical for successful residency. Students will focus on evidence-based online curricula and advanced EM didactics.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9714 Anesthesiology/Pain Med Clerk

Course Info

Course Title

Anesthesiology and Pain Medicine Clerkship

Course Description

In this two week required clerkship, students will gain an understanding of the fundamentals of providing local and regional anesthesia for interventional and surgical procedures, acute and chronic pain states and pain associated with labor and delivery. Students will gain professional experience in perioperative care, airway management, principles of anesthesia and pain management.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9715 Anesthesiology/Pain Med Elect

Course Info

Course Title

Anesthesiology and Pain Medicine Elective

Course Description

Students will gain an understanding of the fundamentals of providing local and regional anesthesia for interventional and surgical procedures, acute and chronic pain states, and pain associated with labor and delivery. Prerequisite: Successful completion of the M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9716 Diagnostic Medicine

Course Info

Course Title

Diagnostic Medicine

Course Description

This is an introduction of diagnostic medicine "boot camp" to medical students at the end of M2 before they start clinical clerkships in M3. It includes one day on pathology, one day on radiology and a half day of laboratory tour. The purpose of this portion of clerkship in pathology is focused on getting students familiar with pathology and radiology practice. The pathology topics include the orientation to pathology department, test directory and order entry, send-out test, point of care testing, specimen collection, stat test, critical value, TAT, test panel, pre-analytical and analytical variability, reference interval, choose wisely, communication and the process of diagnostic workup. The radiology topics will include the orientation to radiology department, different kinds of image studies, imaging in pregnancy and breast-feeding patient, entering orders, radiation safety and risks. Prerequisite: Successful completion of the M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9717 Diagnostic Medicine 2

Course Info

Course Title

Diagnostic Medicine 2

Course Description

In this two week required clerkship, students will acquire an understanding of the various imaging modalities that are available and how to use them. Students will build on the radiographic knowledge, and learn essential principles.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MDM4 9730 Family Med Sub-I

Course Info

Course Title

Family Medicine Sub-I

Course Description

In this clerkship students will spend 4 weeks in hospital with the Combined Inpatient Teaching Service at Beaumont Health System, Troy. The student will be expected to be an integral part of the team in terms of patient care and educational rounds/conferences. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9732 Internal Med Sub-I

Course Info

Course Title

Internal Medicine Sub-I

Course Description

In this course students will develop and apply the data gathering and data synthesis processes used in Internal Medicine with special emphasis on history taking and physical diagnostic skills, time management and resource utilization. Students will apply the principles of medical decision-making, and an understanding of the rational, cost-effective use of diagnostic laboratory and imaging tests. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9733 Internal Med Sub-I-Elective

Course Info

Course Title

Internal Medicine Sub-Internship - Elective

Course Description

In this elective students will develop and apply the data gathering and data synthesis processes used in Internal Medicine with special emphasis on history taking and physical diagnostic skills, time management and resource utilization. Students will apply the principles of medical decision-making, and an understanding of the rational, cost-effective use of diagnostic laboratory and imaging tests. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9734 Pediatrics Sub-I

Course Info

Course Title

Pediatrics Sub-Internship - Clerkship

Course Description

Students will develop skills in interviewing and examining infants and children. Students will acquire diagnostic skills through history, physical examination and proper use of laboratory testing. Students will also learn how to maintain medical records and how to give a clinical case presentation. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9735 Pediatrics Sub-Intern-Elective

Course Info

Course Title

Pediatrics Sub-Internship - Elective

Course Description

In this elective students will develop skills in interviewing and examining infants and children. Students will acquire diagnostic skills through history, physical examination and proper use of laboratory testing. Students will also learn how to maintain medical records and how to give a clinical case presentation. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9736 Surgery Sub-I

Course Info

Course Title

Surgery Sub-I

Course Description

Students will participate in the capacity of an intern, evaluating new patients and following patients during hospitalization. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9737 Surgery Sub-Intern-Elective

Course Info

Course Title

Surgery Sub-Internship - Elective

Course Description

In this elective, students will participate in the capacity of an intern, evaluating new patients and following patients during hospitalization. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9790 Embark 9

Course Info

Course Title

Embark 9: Directed Capstone

Course Description

This course is for students to continue to work on their Capstone projects, completing a portion of their project in an independent manner, finalizing data collection and data analysis and preparing their final project abstract and Embark Capstone Colloquium research poster. Depending on project progress, there may be meetings required with the Embark Program leadership during this course. Required office visits are communicated to students following required progress report submissions. Students are expected to work on their capstone project during any available time throughout the semester. Prerequisite: MDM3 9592 Embark 8

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM4 9791 Embark 10

Course Info

Course Title

Embark 10

Course Description

This course requires students to complete a portion of their project in an independent manner. Depending on project progress, there may be meetings required with the Embark Program leadership. Students are required to complete and submit their final research project abstracts and posters to the Embark Capstone Colloquium utilizing the skills they acquired through their research design courses, as well as present their work to their peers, mentors, administration and staff at the Embark Capstone Colloquium. Prerequisite: MDM4 9790 Embark 9

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

MDM4 9800 PRISM 7

Course Info

Course Title

PRISM 7

Course Description

This course will build on the themes of personal and professional development with a focus on the residency application process. Content will include advanced interviewing techniques and initial review of the match process. Sessions throughout the semester will be available on the student portal for students who are attending away electives. Mentors are encouraged to hold a team activity during the semester. Prerequisite: PRISM 6.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM4 9801 PRISM 8

Course Info

Course Title

PRISM 8

Course Description

This course will build on the themes of personal and professional development with a focus on the match process. Content will include review of the match process and strategies for making a rank order list. Sessions throughout the semester will be available on the student portal for students who are attending away electives. Mentors are encouraged to hold a team activity during the semester. Prerequisite: PRISM 7.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

1

MDM4 9820 DICE

Course Info

Course Title

DICE

Course Description

Directed Independent Clinical Education elective is designed to address an individual student's interest in a specific clinical content area.Prerequisite(s): Consent of the Associate Dean for Medical Education.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Credit Hours

Max:

6

Repeat Rules

Repeat Status Code

RP

Repeat Limit

2

MDM4 9850 Allergy/Clinical Immunology

Course Info

Course Title

Allergy and Clinical Immunology

Course Description

Students will become familiar with the indications, use and interpretation of the common lab and x-ray studies for allergy/immunology patients. Students will learn and understand the treatment approaches in allergy and immunology, including avoidance, medications and immunotherapy, as well as to become familiar with controversial/unproven therapies that abound in the field. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9851 IM Inpatient Veterans 4-week

Course Info

Course Title

Internal Medicine Inpatient Veterans Administration 4-week Elective

Course Description

During this 4-week interdisciplinary inpatient elective, students are assigned their own patients and apply their clinical skills under resident and faculty supervision. Students learn how to take an accurate and pertinent history, conduct a physical examination, recognize patterns of illness specific to the veteran population, and acquire approaches to disease management.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

NR

MDM4 9856 Cardio 4-week Elec

Course Info

Course Title

Cardiology 4-week Elective

Course Description

Students will provide in-patient experience in treating patients with chronic heart disease, and other heart conditions. Students will gain proficiency in physical examination, ECG interpretation and use of noninvasive laboratory tests. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9860 Colon & Rectal Surg

Course Info

Course Title

Colon and Rectal Surgery

Course Description

Students will be introduced to the specialty of colon and rectal surgery; investigate and manage diseases of the anus and rectum; learn a comprehensive approach to management of inflammatory bowel disease (nutritional, medical, and surgical). Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9858 Cardiovascular Surg

Course Info

Course Title

Cardiovascular Surgery

Course Description

Students will become acquainted with cardiovascular disease as presented for surgical treatment. The student will acquire experience in the pre-operative evaluation of a cardiovascular surgery patient, acquaint himself with the surgery and become familiar with the post-operative care. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9862 Diagnostic Rad Elec

Course Info

Course Title

Diagnostic Radiology Elective

Course Description

Students will be introduced to the medical specialty of diagnostic radiology and be familiarized with the range of imaging modalities and procedures available within the field of radiology. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9863 IM Student Chief Elective

Course Info

Course Title

IM Med Student Chief Elective

Course Description

The purpose of the elective is to give M4 students the opportunity to step into a leadership role and play a role in the education of M3 students on their internal medicine clerkship. Students are expected to offer guidance to the M3 students with both their inpatient and outpatient responsibilities, as well as leading didactics. Student chiefs also have didactic sessions of their own, which all tie back into the overall theme of bettering them as leaders and educators. The student chiefs are expected to share the knowledge, skills and attitudes required to successfully complete the clerkship. Ideal applicants will have performed exceptionally well on both their M3 Internal Medicine Clerkship and M4 sub-internship. It is advised that that students pursuing this M4 elective have an interest in a career in Internal Medicine, Internal Medicine Combined programs (such as Medicine-Pediatrics) or its subspecialties and will ideally have an interest in medical education and a leadership role in the future. Prerequisite(s): 1) Complete the M4 Internal Medicine Sub-Internship (MDM4 9732) prior to orientation of the elective, 2) High Pass or Honors in M3 Internal Medicine Clerkship (MDM3 9512), 3) Endorsement from an Internal Medicine clinical faculty member (via standardized form)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9864 Emergency Medicine (EM1)

Course Info

Course Title

Emergency Medicine Rotation (EM1)

Course Description

Students will learn to recognize the acutely ill patient; become familiar with the initial evaluation and therapy of a broad variety of adult and pediatric emergencies; formulate a differential diagnosis and initial diagnostic and management plan for the undifferentiated patient; and become familiar with potential life threatening causes of various presenting chief complaints. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9866 Adv'd Emergency Medicine (EM2)

Course Info

Course Title

Advanced Emergency Medicine Rotation (EM2)

Course Description

Students will learn to become proficient with initial evaluation and management of evidence-based Emergency medicine and trauma care in both the adult and pediatric populations. Students will learn to be the primary provider for patients while in the Emergency Department, from initial evaluation to completion of disposition. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9868 Adv'd Ped Emergency Med (EM3)

Course Info

Course Title

Advanced Pediatrics Emergency Medicine Rotation

Course Description

Students will learn to recognize the acutely ill pediatric patient; become familiar with the initial evaluation and therapy of a broad variety of pediatric emergencies; and become proficient with initial evaluation and management of evidence-based pediatric emergency medicine and trauma care. Students will participate in pediatric residency lectures, high fidelity pediatric simulation and dedicated faculty mentorship. Prerequisite: Must be a 3rd or 4th year medical student..

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9870 Endocrinology/Metabolism

Course Info

Course Title

Endocrinology/Metabolism

Course Description

Students will become exposed to common clinical endocrine problems; understand and manage endocrine emergencies; develop a rational approach to endocrine testing procedures; and become familiar with the process of subspecialty consultation. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9872 Gastro/Hep Elective

Course Info

Course Title

Gastroenterology/Hep Elective

Course Description

Emphasizes the diagnostic recognition and practical management of common gastrointestinal diseases and disorders. An active endoscopy unit exposes the students to modern approaches to the diagnosis and treatment of many of these diseases. Particular emphasis is placed on clinical gastroenterology. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9874 Geriatric Medicine

Course Info

Course Title

Geriatric Medicine

Course Description

Students will learn to describe the normal physiological changes of aging; the various theories which have been proposed to explain the aging process; and identify commonly altered disease presentation in the elderly. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9876 Hema/Oncology 4-week

Course Info

Course Title

Hematology/Oncology 4-week

Course Description

Students will become familiar with the approach to hematological and oncological disorders and the diagnostic workup of these illnesses. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9878 Infec Disease 4-week

Course Info

Course Title

Infectious Diseases 4-week

Course Description

Students will gain experience diagnosing and treating patients with acute and chronic infectious diseases. Student will learn a practical yet systematic approach to patients presenting with unexplained fever, leukocytosis, or common infectious diseases clinical syndromes. Students will also gain insight into the interpretation of laboratory reports that relates the microbiology, serology and immunology of infectious diseases. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9880 Ophthalmology 4-week

Course Info

Course Title

Ophthalmology 4-week

Course Description

Students will begin to understand the basic anatomy of the visual system, become adept at performing a basic screening eye examination, be able to recognize red flag physical findings, become adept at performing a basic screening eye examination, be able to recognize red flag physical findings, become familiar with ophthalmic manifestations of systemic disease and their surveillance schedule, and recognize the need for evaluation by an ophthalmologist of patients with common eye symptoms/signs and eye trauma. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9882 Maternal Fetal Med

Course Info

Course Title

Maternal Fetal Medicine

Course Description

Students will actively participate in clinical consultation and care of high-risk pregnancies of a busy obstetric service. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9884 Medicine/Pediatrics

Course Info

Course Title

Medicine/Pediatrics

Course Description

Students will be exposed to the aspects of Medicine/Pediatrics that would be most beneficial to their studies. Each Meds/Peds elective is custom designed to meet the educational needs and interests of the individual student. Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9886 Neonatal Medicine

Course Info

Course Title

Neonatal Medicine

Course Description

Students will function as an intern in the NICU. The student will be assigned a primary patient load, attend deliveries, participate in procedures and work closely with the neonatologist and resident team. Prerequisite: Must be a 3rd or 4th year medical student. Must have completed MDM3 9516 Pediatrics.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9888 Nephrology

Course Info

Course Title

Nephrology

Course Description

Students will learn of disorders, failures, and treatments through Inpatient consultations with supervising nephrologists during daily rounds. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9890 Neurology

Course Info

Course Title

Neurology

Course Description

The senior elective aims to familiarize individuals with common problems encountered in the practice of neurology, particularly with those problems which may be seen in the office of a family medicine physician or internist. Students will learn to demonstrate a neurological examination, which is thorough, understandable and effective in practice. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9892 Neurosurgery

Course Info

Course Title

Neurosurgery

Course Description

The student will work alongside of the neurosurgical team and be expected to attend morning rounds, assist in the operating room, and attend neuroscience rounds and brain cutting. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9894 Nuclear Medicine

Course Info

Course Title

Nuclear Medicine

Course Description

The student will participate in the performance and interpretation of all types of diagnostic studies performed in the Nuclear Medicine Department. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9896 OB/GYN Elective

Course Info

Course Title

Obstetrics/Gynecology Elective

Course Description

Students will participate in outpatient resident continuity clinics, work rounds with house staff. The student will also become familiar with the use of ancillary obstetric procedures. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9898 Orthopaedic Surgery

Course Info

Course Title

Orthopaedic Surgery

Course Description

Students will be assigned to one of the orthopaedic services under the direction of the chief resident and attending physicians of that service. During the rotation, the student will participate in patient rounds, conferences, surgery, and emergency care. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9900 Pediatrics, Acute Care Clinic

Course Info

Course Title

Pediatrics, Acute Care Clinic

Course Description

Students will evaluate and manage patients in the Pediatric Acute Care Clinic under the direct supervision of the senior resident and attending pediatricians. Students will perform a history and physical examination on each patient evaluated, and will formulate an assessment, differential diagnosis, recommendations for further evaluation/testing, and a tentative diagnosis and plan. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9902 Pediatrics, Adolescent

Course Info

Course Title

Pediatrics, Adolescent

Course Description

Students will gain experience with the interview and examination of adolescents, including issues of confidentiality and legal rights. Students will become familiar with adolescent growth and physical development as well as gain an understanding of adolescent cognitive and emotional/social development. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9904 Pediatric Cardiology

Course Info

Course Title

Pediatric Cardiology

Course Description

Students will acquire basic skills in the cardiac examination and will understand normal hemodynamics, the natural history of congenital and acquired heart disease, and the findings expected in specific cardiac defects. Students will learn how to interpret ECGs and will acquire a basic understanding of echocardiography. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9906 Peds-Developmental/ Behavioral

Course Info

Course Title

Pediatrics, Developmental and Behavioral

Course Description

Students will learn to distinguish normal from abnormal development and how to approach the assessment of disorders of learning and development. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9908 Peds Gastro

Course Info

Course Title

Pediatrics Gastroenterology

Course Description

Students will obtain a general fund of knowledge of the common and rare disorders of the gastrointestinal tract and function in infants, children, and adolescents. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9910 Pediatric Hematology/ Oncology

Course Info

Course Title

Pediatric Hematology/Oncology

Course Description

Students will gain an understanding of hematological and oncological problems that are present in the pediatric age group and the management of these problems. Student will learn how to evaluate hematological and oncological lab studies, learn how to take complete history, and perform a physical examination on pediatric hematology and oncology patients. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9912 Genetics Clinical

Course Info

Course Title

Genetics Clinical

Course Description

Students will gain experience in the evaluation of known and suspected genetic disorders in a variety of patients, both adult and pediatric. Special emphasis is placed on dysmorphology and the diagnostic examination of infants and children with multiple congenital anomalies. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9914 Peds-General Sub-Internship

Course Info

Course Title

Pediatrics, General Sub-Internship

Course Description

Students will develop skills in interviewing and examining infants and children. Students will acquire diagnostic skills through history, physical examination and proper use of laboratory testing. Students will also learn how to maintain medical records and how to give a clinical case presentation. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9916 Peds Infectious Dis

Course Info

Course Title

Pediatrics Infectious Disease

Course Description

Students will learn to recognize the evaluation and management of common pediatric infections. Students will also come to understand antimicrobial and antiviral therapy and prophylaxis. Student will learn to recognize and evaluate immune deficiency disorders. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9918 Peds Intensive Care

Course Info

Course Title

Pediatrics Intensive Care

Course Description

Students will become familiar with pediatric system failures and traumas. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9920 Pediatric Neurology

Course Info

Course Title

Pediatric Neurology

Course Description

Students will learn to perform complete neurological history examinations, perform appropriate lab test and correlate with clinical findings and learn to evaluate common neurological problems. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9922 Physical Med/ Rehabilitation

Course Info

Course Description

This rotation provides a well-rounded exposure to the clinical practice of Physical medicine and Rehabilitation in adults. Students will gain a greater understanding of neuromuscular and musculoskeletal problems along with their management. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9924 Pulmonary Medicine

Course Info

Course Title

Pulmonary Medicine

Course Description

Students will gain expertise in the fundamentals of the respiratory system and physical examination; understand the physiology of gas exchange and analysis of arterial blood gases; and understand the pathophysiology of pulmonary diseases. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9925 Med Spanish: NC Prac
Comm Outr

Course Info

Course Title

Medical Spanish: Non-Clinical Practice and Community Outreach

Course Description

To promote cross-cultural and linguistic competence in Spanish, focusing on communicative strategies, medical vocabulary, and interpretation techniques in the clinical learning environment. Prerequisite: Intermediate Proficiency in Spanish

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MDM4 9926 Radiation Oncology

Course Info

Course Title

Radiation Oncology

Course Description

Students will become familiar with the role of radiation therapy in multi-modality management of a wide variety of adult and pediatric malignancies. Student will be acquainted with the external beam and sealed source radiation therapy, as will the immediate and delayed effects. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9928 Rheumatology

Course Info

Course Title

Rheumatology

Course Description

Students will develop skills in the diagnosis and management of rheumatic diseases. Basic history taking and physical examination techniques are stressed and integrated with the use and interpretation of appropriate laboratory tests and x-rays. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9930 Surgery, General

Course Info

Course Title

Surgery, General

Course Description

Senior medical students are provided with an experience equivalent to that of a beginning general surgical house officer on a large active general surgical service. Students will become familiar with a large number and wide variety of major general surgical situations. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9931 Dermatology Elective

Course Info

Course Title

Dermatology Elective

Course Description

The goal of this elective is to expose interested medical students to a career in Dermatology. During this elective, students will have the opportunity to work closely with the dermatology residents and/or faculty who provide a broad perspective of the field of dermatology. Four-week elective. Prerequisite: Completion of M3 clinical curriculum.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9932 Urology

Course Info

Course Title

Urology

Course Description

Students will gain knowledge of the basic pathophysiology of urological diseases in combination with clinical urology. Students will increase their knowledge of the more frequently encountered urological conditions and improve skills in urological diagnosis. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9933 Adv Com EM Elective

Course Info

Course Title

Advanced Community EM Elective

Course Description

Exposes students to a variety of adult and pediatric emergencies while working a variety of Community Emergency Department settings. Students will evaluate patients, formulate different diagnosis and develop initial diagnostic and management plan for undifferentiated patients. Prerequisite(s): Satisfactory completion of the M3 curriculum and must have completed and pass the M4 Emergency Medicine clerkship.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9934 Surgery, Vascular

Course Info

Course Title

Surgery, Vascular

Course Description

Students will gain experience equivalent to that of a beginning house officer on a vascular surgical service. They will be expected to increase their general knowledge, improve their diagnostic skills, and learn the principles of reconstructive vascular surgery. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9936 Surgical ICU

Course Info

Course Title

Surgical ICU

Course Description

Students are provided with the opportunity to care directly for critically ill patients with various surgical disease processes. Students will gain insight into the stress response and other aspects of surgical pathophysiology. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9935 Lifestyle Medicine

Course Info

Course Title

Lifestyle Medicine

Course Description

This course provides the framework from which to build a practice of Lifestyle Medicine or apply Lifestyle Medicine in any specialty of medical practice. An introduction and overview to Lifestyle Medicine as an evidence-based approach to prevention of disease, treatment of disease states and reversing disease progress.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9937 Organ Systems TA

Course Info

Course Title

Organ System Course TA

Course Description

This highly personalized elective experience is designed for students that want to review the basic science and clinical topics in one of the preclinical organ system courses. Students will learn about medical education, theory, and practice. Prerequisite(s): Must be a 4th year medical student in good standing.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Credit Hours

Max:

6

Repeat Rules

Repeat Status Code

NR

MDM4 9938 Fam Med Sub-I Elective (Troy)

Course Info

Course Title

Family Medicine Year 4 Sub-Internship Elective (Troy)

Course Description

In this elective internship students will spend 4 weeks in hospital with the Combined Inpatient Teaching Service at Beaumont Health System, Troy. The student will be expected to be an integral part of the team in terms of patient care and educational rounds/ conferences. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9939 Adv Addiction Med

Course Info

Course Title

Advanced Addiction Medicine

Course Description

To introduce students to the fundamentals of addiction medicine. In addiction, the course aims to increase knowledge and awareness of substance use disorders (SUDs) along with the basics of diagnosis and medical care of persons with SUDs and substance-related health conditions.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MDM4 9940 Integrated Clin Anat

Course Info

Course Title

Integrated Clinical Anatomy

Course Description

This basic science elective prepares students for residency by providing an integrative understanding of anatomy, physiology, pharmacology and pathology as applied to a chosen area of medicine. The course applies daily clinical cases to student-directed, cadaveric dissection combined with interdisciplinary conferences. Daily presentations allow students to practice communicating effectively with patients and colleagues. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9941 Gen Dermatology Ofc Clin Rot

Course Info

Course Title

General Dermatology Office Clinical Rotation

Course Description

This month long rotation consists of a daily schedule of seeing outpatients who suffer dermatologic disorders. Students will discuss patients with the supervising dermatologist. Students will also participate in informal teaching of the basic principles of dermatology. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9943 Orthopaedic Surgery-Foot/Ankle

Course Info

Course Title

Orthopaedic Surgery - Foot and Ankle

Course Description

This four-week rotation is dedicated to musculoskeletal pathology of the foot and ankle. Students work closely with the OUWB School of Medicine Orthopaedic surgery foot and ankle faculty and the residents on this service. Students are treated as integral members of the orthopaedic team. Students are expected to participate fully on all aspects of patient care and educational opportunities. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9944 Orthopaedic Surgery-Sports Med

Course Info

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9945 Orthopaedic Surgery-Spine

Course Info

Course Description

This four-week rotation is dedicated to musculoskeletal pathology of the spine. Students work closely with the OUWB School of Medicine orthopaedic surgery spine faculty and the residents on this service.

Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9946 Intro/Clinical Ethics Consult

Course Info

Course Title

Introduction to Clinical Ethics Consultation

Course Description

This elective provides each student a basic knowledge of applicable clinical ethics concepts and case law, as well as an understanding of how clinical ethics consultation works in a hospital setting.

Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9947 Transplant Surgery

Course Info

Course Title

Transplant Surgery

Course Description

Students are required to attend in tumor board conference, participate in the liver and kidney transplant clinics as well as the liver and pancreas cancer center clinic. Students will observe and scrub in on kidney and liver transplants as well as liver and pancreas resections. Students are required to read elective cases and understand basic pathology, anatomy, and outcomes. Prerequisites: Must have successfully completed the M2 year and passed the USMLE Step 1 exam.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9948 DIRE

Course Info

Course Title

DIRE

Course Description

Directed Independent Research elective is designed to address an individual students' interest in specific research content area.Prerequisite(s): Consent of the Associate Dean for Undergraduate Clinical Education or approved designee

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:	Credit Hours Max:
2	6

Repeat Rules

Repeat Status Code

RP

MDM4 9949 Away Elective Study

Course Info

Course Title

Away Elective Study

Course Description

Students may enroll in this elective once an approved away elective has been accepted from an approved site/institution. Prerequisite: Consent of the Associate Dean for Medical Education or approved designee.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:	Credit Hours Max:
2	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

MDM4 9950 Global Health Elec

Course Info

Course Title

Global Health Elective

Course Description

Students may enroll in this elective once an approved away elective has been accepted from an approved site/institution. Prerequisite: Consent of the Associate Dean for Medical Education or approved designee.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Credit Hours

Max:

12

Repeat Rules

Repeat Status Code

RP

MDM4 9951 Pathology & Lab Med

Course Info

Course Title

Pathology and Laboratory Medicine Elective

Course Description

This elective comprises two parts divided equally between the departments of Anatomic Pathology and Clinical Pathology. The elective will serve as an introduction to the practice of anatomic and clinical pathology, and will stress clinicopathologic correlation. Prerequisite: Must be a 3rd or 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9952 Medical Education

Course Info

Course Title

Medical Education

Course Description

Introduces students to contemporary thinking on medical education and leadership. The activities involved are concentrated reading, face-to-face seminars, online discussions and a final presentation together with an essay. Learning activities include watching and evaluating recordings of teaching sessions in order to develop an ability to critique education. The culminating project will consist of a "microteaching experience", in which students will teach their peers and instructors about a topic in medical education which they have researched. Students will plan their session using education principles discussed in the course and enact techniques shown to be effective for student learning in medical education. As a component of this project, students will provide constructive critiques of their classmates' presentations and reflect upon the feedback they receive. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9953 Emerg Med POC-Proc Ultrasound

Course Info

Course Title

Emergency Medicine Point of Care and Procedural Ultrasound

Course Description

Students will learn basic ultrasound skills and gain continued experience in the Emergency Center. Students will scan with faculty, fellows, residents, and on their own patients in the Emergency Center as well, as work shifts with the faculty/fellow to learn how to incorporate ultrasound into daily practice. Students can assist with residents in ultrasound guided procedures. Each week, the ultrasound images that were performed in the Emergency Center will be reviewed, and the students will present an ultrasound related article during the last week of the rotation. Prerequisite: Must be an M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9954 Med Genetics/Genomic Medicine

Course Info

Course Title

Medical Genetics/Genomic Medicine

Course Description

This course will provide an overview of pediatric and adult genetics, prenatal (reproductive) genetics, and cancer genetics through both clinical and consultative services at the Royal Oak and Troy Hospitals. Through these experiences, it will become evident how genetics and genomics is reshaping the practice of medicine. In addition, an introduction to diagnostic genetics laboratory services (Cytogenomics, Molecular Pathology, and Surgical Molecular) will be provided so that students will experience how the diagnostic studies which are driving this era of Molecular Medicine are performed and communicated to clinicians. Prerequisite: Must be an M3 or M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9955 General Otolaryngology

Course Info

Course Title

General Otolaryngology

Course Description

This is a clinically based rotation that takes place in both physician offices and William Beaumont Hospital - Royal Oak. Otolaryngology is an outpatient specialty in large measure, so exposure to the private practice office is substantial. Operating room experience includes bedside procedures like tracheostomy and nasal packing through major head and neck cancer excision and reconstruction. There is also exposure to the allied fields of audiology and speech and language pathology, including interpretation of test results. Prerequisite: Must be an M3 or M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9956 Amb Endo & Metab Elective

Course Info

Course Title
Amb Endo & Metab Elective

Course Description
In this 4th year elective, students evaluate patients in an outpatient endocrinology clinic and document their assessment and plan in the patient's electronic medical record. Students have the opportunity to observe thyroid ultrasound, ultrasound guided thyroid biopsies, thyroid and parathyroid scans, DEXA scans, and other endocrinology tests/procedures.

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours

Units:
6

MDM4 9957 Holistic Admissions Review

Course Info

Course Title
Holistic Admissions Review

Course Description
This elective introduces students to a deeper understanding of the complex nature of a holistic admissions process. The students have the opportunity to participate in every step of the admissions process, allowing them to appreciate the difficult process that is admissions and giving them the opportunity to observe the qualities of future colleagues. The activities involved are screening applications, attending Admission Committee meetings, participating in interviewing session, and other various roles that the Admissions Team handles every day. Participants can use what they learn during this rotation in mentoring future pre-medical students and being a part of a medical school in the future. Prerequisite: Must be a 4th year medical student.

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours

Units:	Credit Hours
3	Max:
	6

MDM4 9958 Medical Intensive Care Unit

Course Info

Course Title

Medical Intensive Care Unit

Course Description

This elective is designed to provide the senior student with exposure to medical critical care. This rotation fosters team-based practice through a multi-disciplinary approach to care of critically ill medical patients through interaction with professions from nursing, pharmacy, respiratory therapy, physical therapy, nutrition, and others. Under the direction of a rounding medical intensivist and resident team, the student actively participates in daily educational rounding. Teaching occurs on all patients in the medical ICU every day. There is exposure to a wide array of pathophysiology. Learning opportunities include management of mechanical ventilation, management of shock, procedural exposure, ethical medical practice in the MICU, pharmacology, palliative care and comfort care at end of life, and others. Prerequisite: Successful completion of the M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

NR

MDM4 9959 Pulmonary/Critical Care Elect

Course Info

Course Title

Pulmonary and Critical Care Elective

Course Description

This elective is designed to provide the senior medical student with a broad exposure to both pulmonary and critical care medicine. The rotation allows the student to develop and apply critical thinking skills to help with the diagnosis and appropriate management of a variety of different disease processes. The student is exposed to critically ill patients in the CCU/MICU and SICU. The service is generally large enough that students can maximize exposure to a wide range of pulmonary and critical care pathology.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9960 Pulmonary Sleep Medicine-OP

Course Info

Course Title

Pulmonary Sleep Medicine Outpatient Elective

Course Description

Medical students will have the opportunity to learn about outpatient pulmonary and sleep disease such as asthma, COPD, sleep apnea, and other complex pulmonary and sleep disorders. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9961 Integrative Medicine

Course Info

Course Title

Integrative Medicine

Course Description

This course will provide the student with minimal exposure to integrative medicine and see the practical applications and integration into the primary care model. The course includes observation of patient care by licensed Integrative Clinicians. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9962 Emergency Medicine Sub-I

Course Info

Course Title

Emergency Medicine Sub-I

Course Description

The EM Sub-I provides further training in the acute evaluation and management of the undifferentiated patient. Students have the opportunity to be the primary provider for their patients under the supervision of the EM staff. Prerequisite: Must be a 4th year medical student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9963 Trauma Surgery

Course Info

Course Title

Trauma Surgery

Course Description

Advanced surgical clerkship designed to expose the senior medical student to the comprehensive care of the multiple trauma patient. The majority of the elective is based on non-surgical needs of trauma patients. Prerequisite: Successful completion of all M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9964 Breast Disease and Surgery

Course Info

Course Title

Breast Disease and Surgery

Course Description

Advanced surgical elective designed to expose the senior medical student to the field of breast surgery and introduce an appreciation for the multidisciplinary aspects of breast care. (2 weeks).

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9965 Colon and Rectal Surgery

Course Info

Course Title

Colon and Rectal Surgery Elective

Course Description

This elective requires students to rotate with five colon rectal surgeons and to follow the daily schedule and patient care requirements. Students are provided exposure in an outpatient office, endoscopy, and operative settings as related to colon, rectal, and anal diseases. (2 weeks)

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MDM4 9966 Otolaryngology-Head/Neck Surg

Course Info

Course Title

Otolaryngology - Head and Neck Surgery

Course Description

This elective exposes medical students to all facets of otolaryngology: clinical evaluation of the patient as well as medical and surgical management of common otolaryngologic disorders. Students are expected to participate in outpatient clinic and the operating room, as well as inpatient rounds and consultations. Prerequisite: Must be an M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9968 Interven Rad Elec

Course Info

Course Title

Interventional Radiology Elec

Course Description

Students will learn to provide patient care that is compassionate, appropriate and effective for the treatment of health problems and for the promotion of health through interventional radiology techniques. Prerequisite: Must be an M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9967 Pediatric Surgery

Course Info

Course Title

Pediatric Surgery

Course Description

This elective exposes medical students to pediatric surgery. The elective offers training in the care of pediatric surgical patients beginning with the appropriate work-up and preoperative testing. Prerequisite: Must be an M4 student.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9969 Clinical Endocrinology

Course Info

Course Title

Clinical Endocrinology

Course Description

Students will be exposed to patients with endocrine disorders as well as diabetes. Students will make rounds in the hospital and see patients in the office.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

MDM4 9970 Intro to Pediatric Radiology

Course Info

Course Title

Introduction to Pediatric Radiology

Course Description

Students will be exposed to the imaging of a wide spectrum of disorders seen in the pediatric population. Students learn about the different imaging modalities used in the evaluation of various pediatric diseases and are able to understand the specific indications and limitations of each of these modalities.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

MDM4 9971 Art Pract of Med Clinic skills

Course Info

Course Title

Art and Practice of Medicine Clinical Skills

Course Description

This elective is designed to expose students to clinical teaching pedagogy, clinical skills and how their application in medical education could lead to improved teaching, learning and preparation for clinical rotations.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

MDM4 9972 Basic Neuro/Clinical Spec.

Course Info

Course Title

Basic Neuro/Clinical Spec.

Course Description

A highly personalized experience during which students going into clinical neuroscience specialties can further their knowledge of integrated molecular neuroscience, neuroanatomy, neuropathology, neuropharmacology, and semiology.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9973 Plastic/Recon Surger

Course Info

Course Title

Plastic and Reconstructive Surgery

Course Description

This elective is designed to broadly expose the student to the scope of plastic surgery. The student will actively participate in all aspects of patient care including the outpatient and inpatient setting evaluating surgical candidates and developing logical approaches to difficult surgical problems), as well as actively participate in the operating room to develop basic surgical skills and techniques.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9974 Cardiac Care Unit

Course Info

Course Title

Cardiac Care Unit

Course Description

The Cardiac Care Unit (CCU) elective provides an excellent training opportunity for M4 students to acquire experience in the diagnosis management of critically ill patients with cardiovascular diseases. Prerequisite: completion of M3 clerkships.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9975 Inpatient and Outpatient Nephrology

Course Info

Course Title

inpatient and Outpatient Nephrology

Course Description

This elective is directed toward students interested in doing research during their residency, and who want to acquire advanced statistical knowledge while gaining hands-on experience with the collection and analysis of data.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9976 Adv Experimental Design & Data

Course Info

Course Description

Directed to students interested in doing research during their residency, and want to acquire advanced statistical knowledge and gain hands-on experience with the collection and analysis of data.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9977 Critical Care Elective

Course Info

Course Title

Critical Care Elective

Course Description

Directs focus upon the recognition, evaluation, and management of critically ill patient as part of an intensivist-Id multidisciplinary team. Assessment and management of common ICU problem/syndromes/ diseases are emphasized.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9978 Sports Medicine Elective

Course Info

Course Title

Sports Medicine Elective

Course Description

Provides students exposure to the evaluation and treatment of common sports medicine related musculoskeletal injuries and conditions. The student is expected to work in the office of an orthopedic surgeon specializing in Sports Medicine orthopedics to provide a broad field of study and patient care.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9979 Ethics and Palliative Care

Course Info

Course Title

Ethics and Palliative Care

Course Description

This course will introduce M4 students to the basic process and purpose of clinical ethics consultation as well as ethical issues in palliative care, particularly at the end of life. The processes include identifying and gathering relevant information, analyzing the case with appropriate methodology, ethical principles and clinical best practices, and formulating practical recommendations to resolve existing ethical tensions and to guide ethical decision making going forward.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9980 Heme/Onc 2-week

Course Info

Course Title

Hematology/Oncology 2-week

Course Description

The 2 week Hematology/Oncology Elective introduces medical students to the field of medical oncology and clinical hematology with an emphasis on the broad areas of diagnosis and treatment of neoplastic disease.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9981 Infec Disease 2-week

Course Info

Course Title

Infectious Diseases 2-week

Course Description

Students will spend 2 weeks as part of the inpatient consultative infectious diseases service. During this time, students will have the opportunity to participate in bedside teaching rounds, with the full-time teaching attending staff, infectious disease fellows, and house staff rotating on the Infectious Disease Teaching Service.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9982 Ambulatory Urology

Course Info

Course Title

Ambulatory Urology

Course Description

The primary objective of the elective is to expose the student to an extensive experience managing general and complex urologic conditions and to provide a live portrayal of what a career in urology entails. Students are expected to function as a direct member of the staff team and are assigned to assist in the operating room and cystoscopy suite on a rotational basis.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

Credit Hours

Max:

6

MDM4 9983 Systematic Rev. in Health Care

Course Info

Course Title
Systematic Reviews in Health Care

Course Description
The 2-week elective course aims to 1. Improve medical students' understanding of the importance and value of systematic reviews in practicing evidenced-based health care for quality patient care; 2. Increase their knowledge of the process of doing a systematic review; 3. Expand their repertoire of clinical research skills in conducting research synthesis to generate a higher level of clinical evidence; and 4. Enhance their skills in lifelong self-directed learning and problem solving as future physicians.

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours

Units:
3

MDM4 9984 DINCE

Course Info

Course Title
DINCE

Course Description
Directed Independent Non-Clinical Educational elective is designed to address an individual student's interest in a specific non-clinical content area.

College/School
OUWB School of Medicine

Department
Medical School

Credits
Credit Hours

Units:	Credit Hours
2	Max: 6

Repeat Rules
Repeat Status Code
RP

MDM4 9985 Surgical Intensive Care

Course Info

Course Title

Surgical Intensive Care Elective

Course Description

This elective will build on the medical student overall general surgical knowledge and clinical experience and provide more concentrated exposure in diseases and procedures or techniques related to management of critically ill surgical patients.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9987 2-week Trauma Surgery Elective

Course Info

Course Title

2-week Trauma Surgery Elective

Course Description

This advanced surgical elective is designed to expose the senior medical student to comprehensive care of the multiple trauma patient.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9986 Cardiology 2-week Elective

Course Info

Course Title

Cardiology 2-week Elective

Course Description

This elective rotation is designed to provide experience in managing a broad range of cardiac diseases. .

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9988 2-week Dermatology Elective

Course Info

Course Title

2-week Dermatology Elective

Course Description

To provide students exposure to a variety of primary and referral dermatology services that treat inflammatory and neoplastic skin diseases.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9989 Gynecology Oncology Elective

Course Info

Course Title

Gynecology Oncology Elective

Course Description

This elective is for students who have completed the basic core clerkship in Obstetrics and Gynecology and who are interested in enhancing their exposure to the sub-specialty of Gynecology Oncology.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9990 Psychiatry 4-week

Course Info

Course Title

Psychiatry 4-week

Course Description

This four week elective, shaped according to a student's specific clinical interests, is designed to develop advanced clinical skills, emphasize continuity of care and promote leadership.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9991 2wk POC and Procedural Ultraso

Course Info

Course Title

2-week Emergency Point of Care and Procedural Ultrasound

Course Description

Students learn to perform point-of-care ultrasounds as clinically indicated on patients in the emergency department.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9992 Gen Surgery Bootcamp

Course Info

Course Title

General Surgery Bootcamp

Course Description

A two-week non-clinical course offered to 4th year OUWB medical students with intentions of entering the field of general surgery that seeks to prepare them for the emotional and physical challenges of internship.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9993 Intro to Patient Safety & QI

Course Info

Course Title

Introduction to Patient Safety and Quality Improvement

Course Description

During the 2-week elective students will complete quality improvement and patient safety modules through the Institute for Healthcare Improvement "open school." At the end of the rotation the students will submit a written essay describing how they can apply their knowledge of quality and safety to their desired field of interest.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9994 Advanced Patient Safety & QI

Course Info

Course Title

Advanced Patient Safety and Quality Improvement

Course Description

During the 4-week elective students will complete quality improvement and patient safety modules through the Institute for Healthcare Improvement "open school." They will be assigned 6 virtual cases through the Agency for Healthcare Research and Quality (AHRQ).

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

6

MDM4 9995 Addiction Med Elec

Course Info

Course Title

Addiction Medicine Elective

Course Description

Utilizing modules from the Providers Clinical Support System, the elective will provide an overview of evidenced-based practices in the prevention, identification, and treatment of substance use disorders and co-occurring mental disorders.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9996 Public Health

Course Info

Course Title

Public Health

Course Description

A 2-week online elective with modules that cover a broad range of basic public health, health disparities, emergency preparedness, and legal topics.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9997 Competent Care LGBTQ

Course Info

Course Title

Competent Care of the LGBTQ- Patient

Course Description

A 2-week online elective introducing and expanding the medical student's knowledge-base of caring for members of the LGBTQ-communities.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9998 Ophthalmology 2-week

Course Info

Course Title

Ophthalmology 2-week

Course Description

During this brief rotation students will be exposed to Principal Conditions in Ophthalmology (common conditions every non-ophthalmologist should be aware of) as well as Emergencies in Ophthalmology (sight-threatening situations for which emergent referral to an ophthalmologist may be necessary).

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

MDM4 9999 2wk Gen. Pediatric, Acute Care

Course Info

Course Title

2-week Virtual General Pediatrics, Acute Care Clinic

Course Description

This elective provides 4th year students the opportunity to build upon what they learned in their 3rd year pediatric clerkship. The course will help students broaden their pediatric knowledge in the areas of acute care, chronic medical conditions, child abuse, and other high-yield content areas.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

3

ME 5200 Dynamics

Course Info

Course Title

Dynamics

Course Description

Generalized coordinates and matrix methods of analysis of the motion of particles and rigid bodies. Energy and momentum methods applied to mechanical systems. Euler and Lagrange methods applied to forces and motion. An introduction to mechanical vibrating systems. Keplerian motion and kinematics. Formerly ME 521. Offered winter.

Equivalent Courses

ME521, ME521P

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5205 Powertrain Control and Diag

Course Info

Course Title

Powertrain Control & Diagnostics

Course Description

Introduction to controls and diagnostics of advanced powertrain systems. Mathematical modeling; Feedback controls; Smith predictor; Internal model principle; Repetitive control; State/input observers; Kalman filter; Recursive least squares; Affine parameterization; Internal combustion engines; Air-fuel ratio control; Variable intake/exhaust valve control; Combustion diagnostics; Lithium-ion battery diagnostics; Computer simulation using MATLAB/Simulink. This course is cross-listed with ME 4205. Credit cannot be received for both ME 5205 and ME 4205.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5206 Intelligent Vehicle Control Sy

Course Info

Course Title

Intelligent Vehicle Control Systems

Course Description

This course will introduce advanced control design techniques for intelligent vehicle control systems. Topics will include lead/lag compensator design, loop shaping, system norms, H2-optimal control, feedback linearization, sliding surface control, and observer design. Applications will include adaptive cruise control, automated lane keeping, platooning, yaw stability control, rollover prevention, suspension control systems. In each application, a control-oriented model will be developed, and control design will be studied in-depth. ME 5206 and ME 4206 are cross listed - Credit cannot be received for both ME 5206 and ME 4206.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

ME 5210 Analysis/Design of Mech Struct

Course Info

Course Title

Analysis and Design of Mechanical Structures

Course Description

Methods of advanced mechanics of materials applied to the design of mechanical structures. Topics include stress and strain analysis, force equilibrium, deformation compatibility, torsion of non-circular cross-sections, torsion of thick-walled tubes, shear centers, non-symmetric bending, curved and composite beams and thick-walled cylinders. This course is cross listed with a undergraduate course. Credit cannot be received for both ME 5210 and ME 4210. Generally offered fall.

Equivalent Courses

ME561

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5220 Mechanical Vibrations

Course Info

Course Title

Mechanical Vibrations

Course Description

Linear free and forced response of one and multiple degree of freedom systems. Equations of motion of discrete systems. Free vibration eigenvalues and eigenvectors. Applications to engineering systems including vibration isolation, rotating imbalance, vibration absorbers and balancing of rotating machinery. Project required. Formerly ME 522 & ME 6210. Offered fall.

Equivalent Courses

ME522, ME6210

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5230 Automotive Driveline Dynamics

Course Info

Course Title

Automotive Driveline Dynamics

Course Description

Introduction to powertrain and driveline systems dynamics with emphasis on vehicle drive-quality and design of vibration control mechanisms that enhance fundamental drive characteristics in conventional and electrified vehicles. Subjective and objective characteristics are considered related to low-frequency vehicle acceleration performance, including vehicle jerk, surge and powertrain modes, and torsional vibration. This course is cross listed with a undergraduate course. Credit cannot be received for both ME 5230 and ME 4230. Prerequisite (s): Undergraduate courses in dynamics, vibrations, and controls (or equivalent).

Equivalent Courses

ME4230

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5240 Automotive Chassis Systems

Course Info

Course Title

Automotive Chassis Systems

Course Description

Vehicle chassis systems analyses including: power plant and transmission characteristics, maximum traction effort, engine and transmission matching; suspension kinematics, dynamics, and optimization; and tire dynamics, tire forces and moments, rolling resistance and longitudinal slip, ride properties, and characteristics on wet surfaces. Formerly ME 584.

Equivalent Courses

ME584

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5260 Acoustics and Noise Control

Course Info

Course Title

Acoustics and Noise Control

Course Description

Introduction to vibrations and waves; plane and spherical acoustic waves; sound generation, transmission and propagation; sound intensity and power; principles and definitions of noise control; sound and hearing; hearing conservation; community, building and industrial noise control; measurement of sound. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5260 and ME 4260.

Equivalent Courses

ME523

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5310 Machine Learning Engineering D

Course Info

Course Title
Machine Learning Engineering Design

Course Description
Infer the behavior of engineering systems using data-driven machine learning methods including dimension reduction, supervised/unsupervised learning, regression and model selection, clustering and classification, support vector machines, and neural networks and deep learning. MATLAB codes are developed and used in engineering applications. Knowledge of linear algebra and optimization is recommended.

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits
Credit Hours

Units:
4

Repeat Rules
Repeat Status Code
NR

ME 5350 Mech Comp-Aided Engineering

Course Info

Course Title
Mechanical Computer-Aided Engineering

Course Description
Introduction to the use of state-of-the-art finite element technology in mechanical engineering analysis. Fundamentals of computer graphics, solid modeling, finite element modeling and interactive design. Analysis and evaluation of linear static and dynamic mechanical systems. With project.This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5350 and ME 4350. Generally offered fall, summer.

Equivalent Courses
ME4350, ME587

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	8

ME 5400 Numerical Methods/Mech Engr

Course Info

Course Title

Numerical Methods for Mechanical Engineering

Course Description

Introduction to numerical analysis applied to mechanical engineering. Error analysis, roots of equations, direct and iterative solutions of systems of equations, optimization, finite difference methods, ordinary differential equations, curve fitting. Emphasis on programming techniques using Matlab; practical engineering analysis. Applications drawn from all areas of mechanical engineering. Formerly ME 549.

Equivalent Courses

ME549

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5434 Metamodeling Optimiz. Meth Dsg

Course Info

Course Title

Metamodeling and Optimization Methods in Design

Course Description

Fundamentals of metamodeling and optimization with emphasis on practical design applications. Topics include Design of experiments, Latin hypercube design, orthogonal arrays, Metamodeling fundamentals, Radial basis functions, Kriging, Convex and non-convex sets, Classification of optimization problems, Gradient descent and Newton's methods, KKT conditions, and Genetic Algorithms.

Equivalent Courses

ISE4434, ISE5434, ME4434, SYS4434, SYS5434

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 5505 Fund of Thermal-Fluid Ener Sys

Course Info

Course Title

Fundamentals of Thermal-Fluid Energy Systems

Course Description

Fundamentals of thermodynamics, heat transfer, and fluid mechanics, and applications to sustainable energy systems. First and second laws of thermodynamics, conservation of mass and momentum, inviscid and viscous flow, conduction, convection and radiation, and steady and lumped thermal capacitance analysis. Includes project. Additional Requirements: ME 5505 is not open to graduate students that have a previous Mechanical Engineering degree.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5510 Intermediate Fluid Mechanics

Course Info

Course Title

Intermediate Fluid Mechanics

Course Description

Continued study of the fundamentals of fluid mechanics and their applications; linear and angular momentum principles; differential analysis of fluid motion; dimensional analysis and similitude; fluid machinery; laminar and turbulent boundary layer theory, lift and drag; compressible flow. With laboratory. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5510 and ME 4510. Generally offered fall.

Equivalent Courses

ME538

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5515 Comp Fluid Dynamics

Course Info

Course Title

Computational Fluid Dynamics

Course Description

Overview of the physical and mathematical foundations of computational fluid dynamics (CFD). Numerical solution techniques for the Navier-Stokes equations; finite difference and finite volume methods, including discretization, stability analysis, and time stepping; turbulence modeling; grid generation and complex geometries. Introduction to commercial CFD software. Includes projects. Prerequisite(s): Student must meet prerequisite (ME 5400 or equivalent).

Equivalent Courses

ME539

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5520 Intermediate Heat Transfer

Course Info

Course Title

Intermediate Heat Transfer

Course Description

Continued study of conduction, convection and thermal radiation heat transfer; exact solutions of one- and two-dimensional steady conduction; introduction to finite difference methods; transient conduction; thermal boundary layers; natural and combined convection; radiation processes and properties; radiation exchange between surfaces. With laboratory. Generally offered winter. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5520 and ME 4520.

Equivalent Courses

ME548

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 5525 Fuel Cell Science and Technology

Course Info

Course Title

Fuel Cell Science and Technology

Course Description

Fundamental principles of fuel cells. Thermodynamics, electrochemistry, material and transport processes governing fuel cell operation. Structure and operation of various types of fuel cells. Proton exchange membrane (PEM) fuel cell modeling, design and testing. Fuel cell stack and system. Hydrogen generation, delivery and storage. Includes project. This course is cross-listed with an undergraduate course. Credit cannot be received for both ME 5525 and ME 4525. Prerequisite(s): An understanding of basic physics and chemistry is needed. Formerly ME 537 and ME 6530.

Equivalent Courses

ME4525, ME537, ME6530

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5530 Renewable Energy

Course Info

Course Title

Renewable Energy

Course Description

The analysis and design of renewable energy conversion systems. Primary energy sources include solar, wind, hydro, and bioenergy. Analysis of energy resources, energy conversion technologies, and system modeling and controls. Other topics include emerging energy harvesting technologies. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5530 and ME 4530.

Equivalent Courses

ME4530, ME554

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

8

ME 5535 Introduction to Electric Drive

Course Info

Course Title

Introduction to Electric Drive Vehicle Engineering

Course Description

Operating principles for key components of electric and hybrid vehicles including batteries, electric motors, power electronics, transmissions, internal combustion engines, fuel cells, and hydrogen storage systems. Alternative vehicle architectures including mild and strong hybrid vehicles, full battery electric vehicles, and fuel cell vehicles. Analysis of vehicle performance and efficiency. Prerequisite(s): Senior or graduate standing in the science or engineering disciplines. Fundamental understanding of basic physics and chemistry needed. Cross-listed with 4535.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code

NR

ME 5540 Internal Combustion Engines I

Course Info

Course Title

Internal Combustion Engines I

Course Description

An introduction to the thermodynamics, fluid mechanics and performance of internal combustion engines, including an introduction to engine types and their operation, engine design and operating parameters, ideal thermodynamics cycles, the thermodynamics of actual working fluids and the actual cycles, gas exchange processes, heat losses, performance, exhaust gas analysis and air pollution. May include laboratory exercises. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5540 and ME 4540. Generally offered fall

Equivalent Courses

ME4540, ME557

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5545 Fundamentals of Battery System

Course Info

Course Title

Fundamentals of Battery Systems for Hybrid & Electric Vehicles

Course Description

This is a graduate-level course focused on energy storage systems that are the enabling technology for hybrid and electric vehicles. The engineering fundamentals of batteries, will be introduced as well as their integration into energy storage systems for hybrid and electric vehicle applications. This course is cross-listed with an undergraduate course. Credit cannot be received for both ME 5545 and ME 4545.Prerequisite(s): Basic courses in physics, chemistry and thermodynamics. Formerly ME 6535 and also ME 536.

Equivalent Courses

ME536, ME6535

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ME 5550 Fluid and Thermal Energy Sys

Course Info

Course Title

Fluid and Thermal Energy Systems

Course Description

Applications of fluid and thermal transport and energy conversion concepts. Component and system analyses and design refinement using integral, differential and lumped-parameter modeling techniques. The course focuses on the design process using design-oriented projects. Generally offered fall. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5550 and ME 4550.

Equivalent Courses

ME4550, ME582

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5560 Combustion Processes

Course Info

Course Title
Combustion Processes

Course Description
Thermodynamics of state, mixtures, Gibbs free energy; chemical equilibrium, stoichiometry; chemical reaction kinetics, reaction rate, mixing, catalyst action; fluid vaporization, condensation, atomization; applications, spark and compression ignition, continuous combustion.Prerequisite(s): Student must meet prerequisite (ME 4500) or equivalent.

Equivalent Courses
ME555

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5570 Sustainable Design For Built E

Course Info

Course Title
Sustainable Design for the Built Environment

Course Description
The analysis and design of sustainable buildings including envelope analysis, climate control and comfort level, energy efficiency and air quality. Emphasis on alternative energy technology integration towards a net-zero goal. Baseload and peak power generation and mitigation strategies for a sustainable power grid campus-wide. Includes design project(s). This course is cross-listed with an undergraduate course. Credit cannot be received for both ME 5570 and ME 4570.

Equivalent Courses
ME4570

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

ME 5580 Fundamentals/Nuclear Engr

Course Info

Course Title

Fundamentals of Nuclear Engineering

Course Description

Fundamental concepts of atomic and nuclear physics; interaction of radiation with matter and shielding; neutron diffusion and moderation; neutron poisons and control rod design; reactor licensing, safety and the environment; applications in power generation and medicine; nuclear power and reactor design, including future application to data centers and nuclear waste harvesting for energy. Cross-listed with ME 4580 Credit cannot be received for both ME 5580 and ME 4580.

Equivalent Courses

ME579

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ME 5585 Nuclear Reactors/Power Plants

Course Info

Course Title

Nuclear Reactors and Power Plants

Course Description

The study of various nuclear power plant types and systems; Rankin Cycle thermodynamics; BWR, ESBWR and PWR power plants; engineered safety systems; nuclear regulations, codes and standards; reactor safety fundamentals; economic and environmental issues. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 4585 and ME 5585. This course includes a project. Offered winter.Prerequisite(s): Student must meet prerequisite (ME 4500 and ME 5580).Prerequisite or Corequisite: ME 4520

Equivalent Courses

ME580

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

3

ME 5590 Energy & Sustainability Eng Se

Course Info

Course Title

Energy and Sustainability Engineering Seminar and Practice

Course Description

Theory and practice of developing sustainable engineering solutions for a variety of energy, environment, and other applications. Review of best practices including sustainability metrics and life-cycle assessment. Analysis of energy resources, water resources, food production, and social issues related to sustainability. Includes seminar and design project. This course is cross-listed with an undergraduate course. Credit cannot be received for both ME 5590 and ME 4590.

Equivalent Courses

ME4590

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 5600 Materials Prop and Processes

Course Info

Course Title

Material Properties and Processes

Course Description

Study of mechanical behavior of real engineering materials and how they influence mechanical design. True stress/strain properties of materials, plastic deformation and fracture of materials, failure theories, fatigue damage under cyclic loading, creep and high temperature applications. Material properties of engineering metals, ceramics and composites. Behavior of materials during and after manufacturing processes such as stamping, drawing, extrusion, etc. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5600 and ME 4600.Offered Winter, Summer.

Equivalent Courses

ME4600, ME472, ME572

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

ME 5610 Polymeric Materials

Course Info

Course Title

Polymeric Materials

Course Description

Fundamentals of plastic materials. Terminology and nomenclature for plastics. General topics dealing with plastics, such as structure, morphology, properties, etc. Focus on mechanical and physical properties and mechanical behavior of plastics. Plastics processing, testing, design and recycling is introduced. Project required. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5610 and ME 4610.

Equivalent Courses

ME4610, ME543

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5620 Plastics Product Design

Course Info

Course Title

Plastics Product Design

Course Description

Design of plastic/composite products based on strength, stiffness, creep, impact, chemical and environmental attack. Effect of processing on part quality and performance. Design of plastic parts for joining and assembly. Use of CAD/CAM/CAE software for structural analysis and design optimization. Project required. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5620 and ME 4620.

Equivalent Courses

ME4620, ME545

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5630 Experimental Stress Analysis

Course Info

Course Title

Experimental Stress Analysis

Course Description

Experimental determination of stress and strain in loaded members. Use of capacitance strain gage, resistance strain gages and rosettes and wheatstone bridges, optical strain gages and rosette, and two-dimensional photoelasticity and photoelastic coatings. Design of experiments and portable transducers which measure force, moment and displacement and deformations, etc. With laboratory. Formerly ME 565. Offered winter.

Equivalent Courses

ME565

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5701 Manufacturing Processes

Course Info

Course Title

Manufacturing Processes

Course Description

Fundamentals and technology of machining, forming, casting and welding. Mechanics of cutting. Molding of polymers. Tolerancing and surface topography. Manufacturing considerations in design. Economics of manufacturing. Process assembly and product engineering. With laboratory. This slash course is cross listed with an undergraduate course. Credit cannot be received for both ME 5701 and ME 4700. Generally offered Fall.

Equivalent Courses

ME4701, ME574

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5702 Plastics Processing Engineerin

Course Info

Course Title

Plastics Processing Engineering

Course Description

Polymeric materials and their manufacturing related properties. Principles and design of extrusion, post extrusion processes, molding and forming processes. Rheological behavior of polymers, melt-flow characteristics, modeling and simulation. With project and laboratory. This course is cross listed with an undergraduate course.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5710 Lubrication, Friction and Wear

Course Info

Course Title

Lubrication, Friction and Wear

Course Description

Study of fundamental wear mechanisms including: adhesive, abrasive, corrosive and surface fatigue. Boundary and hydrodynamic lubrication. Friction theories. Surface topography characterization. Applications: journal and ball bearings, gears and engine components. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5710 and ME 4630.Offered spring, fall.

Equivalent Courses

ME4630, ME575

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5720 Product & Process Development

Course Info

Course Title

Product and Process Development

Course Description

Topics include traditional and nontraditional approaches in product and process development and optimization, including conventional experimental mechanics and acoustic test methods. The Taguchi approach and other methods for design of experiments are used to study the interaction of variables and to attain optimization. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5720 and ME 4720.

Equivalent Courses

ME4720, ME576

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5730 Fasteners and Bolted Joints

Course Info

Course Title

Fasteners and Bolted Joints

Course Description

Analysis, design, and reliability of bolted joint systems under static and dynamic loads. Topics include torque-tension-turn formulation, process control, service and environmental loads, fatigue, elastic interaction, vibration loosening, creep relaxation, and corrosion. With laboratory experiments. This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5730 and ME 4730. Generally offered fall. Prerequisite(s): ME 4300 or equivalent.

Equivalent Courses

ME589

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5750 Optical Measurement &Qlty Insp

Course Info

Course Title

Optical Measurement and Quality Inspection

Course Description

Topics include state-of the-art optical methods such as laser triangulation, 3D-computer vision, digital image correlation, TV-holography/Electronic Speckle Pattern Interferometry (ESPI), digital shearography, ultrasonic technique, and so on, with applications to measurements of 3D shape, 3D-displacements, 3D-strains, and material properties, as well as to nondestructive testing (NDT). This course is cross listed with an undergraduate course. Credit cannot be received for both ME 5750 and ME 4750. Generally offered fall, winter

Equivalent Courses

ME467, ME4750, ME567

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 5761 Sheet Metal Forming Processes

Course Info

Course Title

Sheet Metal Forming Processes

Course Description

Sheet metal formability, shearing, bending, flanging, hemming, drawing, hydroforming, hot forming, stamping dies and presses. Emphasis is made on analytical models and understanding the results of numerical simulation of stamping using commercial software, sheet metal fracture, wrinkling, spring back, recent development of stamping of lightweight materials. Offered Winter.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Study of special topics in mechanical engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ME 595.

Equivalent Courses

ME595

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ME 5970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Independent Study in a special area in mechanical engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ME 594.

Equivalent Courses

ME594

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

ME 6210 Mechanical Vibrations

Course Info

Course Title

Mechanical Vibrations

Course Description

Linear free and forced response of one and multiple degree of freedom systems. Equations of motion of discrete systems. Free vibration eigenvalues and eigenvectors. Applications to engineering systems including vibration isolation, rotating imbalance, vibration absorbers and balancing of rotating machinery. Project required. Formerly ME 522. Offered fall.

Equivalent Courses

ME522, ME5220

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6215 Noise, Vibration and Harshness

Course Info

Course Title

Noise, Vibration and Harshness

Course Description

Basics of vibration and acoustics. Characteristics of sound waves. Sound generation and propagation. Human response to sound. Sound intensity. Vibration analysis and control. Modal analysis. NVH instrumentation and measurements. Noise control applications with emphasis to automotive applications. Project included. Prerequisite(s): Student must meet prerequisite ME 5220 or equivalent.

Equivalent Courses

ME525

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6220 Vibration & Sound Measurements

Course Info

Course Title

Vibration and Sound Measurements

Course Description

Vibration and sound data analysis, instrumentation and measurement techniques. Description of deterministic and non-deterministic data. Constant parameter linear systems; transfer function, impedance, mobility, sampling theory, filtering, temporal and spectral analyses. Properties of vibration and sound. Transducers, measuring equipment and analyzers. Experimental model analysis; acoustic intensity and source identification. Offered fall. Prerequisite(s): Student must meet prerequisites (APM 5441, ME 5260 or equivalent).

Equivalent Courses

ME526

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6225 Random Vibrations

Course Info

Course Title

Random Vibrations

Course Description

The course covers the fundamental concepts of probabilistic modeling of vibratory systems and provides analytical and simulation-based methods to quantify their response to random excitation. The material has vast applications in durability, reliability and fatigue prediction of mechanical, civil and aerospace structures, among others. Prerequisite(s): ME 6210 or basic knowledge of linear vibration theory.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 6230 Kinematics and Mechanisms

Course Info

Course Title

Kinematics and Mechanisms

Course Description

Basics of kinematics analysis, synthesis and mechanism design. Mechanisms' degrees of freedom and equivalent linkages. Analyze/ Synthesize linkage positions, velocities and accelerations using graphical and analytical approaches. Cam/follower system introduction. Various types of gears and gear trains analysis. Offered fall. Comments: Previously ME 530

Equivalent Courses

ME530

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6240 Mechanics of Metal Forming

Course Info

Course Title

Mechanics of Metal Forming

Course Description

Study of mechanics, metallurgy and basic analytical and numerical methods needed to understand the analysis of metal forming processes. Topics include: introduction to plasticity, yield criteria, work hardening and plastic anisotropy; ideal work method, slab and upper-bound analyses; formability, springback and forming limit diagrams. Overview of using commercial finite element packages to simulate bulk and sheet metal forming. Formerly ME 578. Offered fall.

Equivalent Courses

ME578

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6250 Advanced Metal Forming

Course Info

Course Title

Advanced Metal Forming

Course Description

The finite element simulation of metal forming processes using commercially available software. Focus on sheet metal stamping, tubular hydroforming and bulk metal forging. Mesh refinement, mass scaling, velocity scaling, element formulations, contact models, material models, CPU efficiency and postprocess solution interpretation are discussed. Project presentation typically required. Offered winter. Odd Years. Student must meet prerequisites (ME 578 and ME 569) or equivalent.

Equivalent Courses

ME678

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6310 Reliability Methods/Eng Design

Course Info

Course Title

Reliability Methods in Engineering Design

Course Description

Theory and applications of probabilistic methods in the analysis and synthesis of engineering systems. Review of basic probability concepts, random variables and distributions and uncertainty quantification and propagation. First-order, second-order and advanced mean value reliability methods. Monte Carlo simulation, variance reduction techniques, sensitivity analysis and reliability-based design optimization. Implementation of probabilistic methods using Excel and Matlab. Formerly ME 586. Offered winter.

Equivalent Courses

ME586

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6340 Automotive Engineer Design II

Course Info

Course Title

Automotive Engineering Design II

Course Description

Continuation of Automotive Engineering Design I including: mechanics of handling, suspension, roll and ride; design of steering systems including: universal joints, vibration isolators, rack and pinion gears and tie rods. Design of doors, lift gates, hatchbacks and occupant environment. Offered winter. Comments: Previously ME 585 and ME 684.

Equivalent Courses

ME585, ME684

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6410 Finite Elements

Course Info

Course Title

Finite Elements

Course Description

Structural analysis through matrix formulation using direct and variational methods; stiffness and flexibility matrices for triangular, quadrilateral and isoparametric elements in two and three dimensions. Finite element programs and available graphics hardware for data preparation. Formerly ME 569. Offered fall.

Equivalent Courses

ME569

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6510 Convective Transport Phenomena

Course Info

Course Title
Convective Transport Phenomena

Course Description
Development of the fundamental equations expressing conservation of mass and momentum principle. Navier-Stokes equations. Approximation techniques. Boundary layer theory. Introduction to turbulent transport processes. Hydrodynamics of two-phase flows. Offered winter, even years. Formerly ME 638.

Equivalent Courses
ME638

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

ME 6520 Thermal Transport Phenomena

Course Info

Course Title
Thermal Transport Phenomena

Course Description
Development of the fundamental continuum equation expressing conservation of energy. Radiation and conduction heat transfer, extended surfaces, multi-dimensional conduction problems, and one-dimensional unsteady conduction problems. Convective heat transfer, thermal boundary layer theory, forced and natural convection, and two-phase flow phenomena. Offered fall. Formerly ME 648.

Equivalent Courses
ME648

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits
Credit Hours

Units:
4

ME 6540 Internal Combustion Engines II

Course Info

Course Title

Internal Combustion Engines II

Course Description

Combustion characteristics, fuels, materials and design of internal combustion engines including: combustion in spark and compression ignition engines; engine heat transfer; fuels and fuel systems; engine balance and vibration; friction, lubrication and wear; valves and valve train; superchargers, turbochargers and auxiliary systems; variables affecting engine performance; engine design. With laboratory. Offered winter. Comments: Previously ME 657 and ME 558.

Equivalent Courses

ME558, ME657

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6585 Adv Auto Propulsion Systems

Course Info

Course Title

Advanced Automotive Propulsion Systems

Course Description

An overview of prime movers suitable for vehicle propulsion. Topics include: a morphological description of various internal combustion engines, current and future passenger car engines and powertrains, energy alternatives, legislative issues, vehicle integration and suitable advanced technologies. The course typically will be taught by a team of industry experts. Prerequisite(s): Student must meet prerequisite (ME 5540) or have equivalent experience in I.C. engines.

Equivalent Courses

ME559

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6610 Mechanics of Composite Material

Course Info

Course Title

Mechanics of Composite Materials

Course Description

Introduction to composite materials. Forming procedures and manufacturing. Basic principles of fiber-reinforced composite materials. Introduction to micromechanics of a lamina. Macromechanical behavior of a laminate. Bending of laminated plates. Stress analysis of viscoelastic composite materials. Characterization and design of composite materials. Structural synthesis. Formerly ME 564. Offered fall, even years.

Equivalent Courses

ME564

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6620 Theory of Plasticity

Course Info

Course Title

Theory of Plasticity

Course Description

Details of the fundamental mechanics of plastic deformation are explored. Yield criteria, hardening laws, constitutive relations, ductile fracture criteria and instability models are covered. An emphasis on theoretical concepts is made in order to prepare the student for metal forming problem solutions. Formerly ME 571.

Equivalent Courses

ME571

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6630 Applied Elasticity

Course Info

Course Description

Fundamentals of solid mechanics, stress-strain and equilibrium and compatibility equations, generalized Hooke's law, boundary conditions. Plane strain and generalized plane stress, plane elasticity. Airy stress function, torsion and bending, St. Venant principle, introduction to thermoelasticity, and numerical methods. Offered winter.

Equivalent Courses

ME563

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6650 Advanced Battery Materials

Course Info

Course Title

Advanced Battery Materials

Course Description

Principles, materials, characterization, and design of rechargeable batteries, including Li-ion and chemistries beyond Li-ion. Materials and design of cathode, anode, and electrolyte. Materials characterization and electrochemical testing. With laboratory. Prerequisite(s): Introductory courses in thermodynamics, materials and chemistry. Generally offered in winter.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ME 6660 Fatigue Analysis and Design

Course Info

Course Title

Fatigue Analysis and Design

Course Description

Emphasis is placed on analytical and predictive methods that are useful to design engineers in avoiding fatigue failure. The most current fatigue analysis methods, techniques and applications are introduced, which include the following: guidance for choosing and applying the analysis methods most appropriate to a fatigue situation; variable amplitude loading and statistical fatigue properties; engineering case studies involving the development of both fundamental and advanced analytical skills. Formerly ME 562. Offered fall.

Equivalent Courses

ME562

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6700 Machining Processes

Course Info

Course Title

Machining Processes

Course Description

Fundamentals of various machining processes including turning, milling, drilling and grinding. Fixturing and geometric errors produced by machine tools. Friction and wear of cutting tools. Influence of cutting fluids, tool design and tool material on cutting temperatures, work piece surface roughness and tool wear. Description of alternative machines and smart machine tools. Offered spring, odd years.

Equivalent Courses

ME674

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6710 Advanced Tribology

Course Info

Course Title

Advanced Tribology

Course Description

In depth study of selected topics in tribology. Examples include: friction and wear theories, temperature rise due to frictional sliding, oil film thickness calculations, contact mechanics, friction and wear, mechanisms of metals, polymers and ceramics, engine and bearing tribology. Offered winter, odd years. Prerequisite(s): Student must meet prerequisite (ME 5710).

Equivalent Courses

ME675

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6730 Advanced Material Joining

Course Info

Course Title

Advanced Material Joining

Course Description

This course covers various design, analysis, and failure modes of load-bearing structural joint systems under static, dynamic, thermal, and environmental loads. This includes threaded, adhesively bonded, and hybrid bonded-and-threaded joints that are made of similar or dissimilar materials. Sample topics include vibration-induced loosening, adhesive characterization, and reversible adhesives. Prerequisite(s) ME 5730 or equivalent fastening and joining knowledge.

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 6750 Optical Meth Experimental Mech

Course Info

Course Title

Optical Methods in Experimental Mechanics

Course Description

Modern contemporary optical methods in experimental stress analysis, including digital speckle methods, correlation methods, x-rays and optical diffraction methods, digital holography, digital shearography and other digital optical methods. Emphasis on full field, non-contacting measurement and analysis of 3D-deformations, 3D-strains/stresses and vibration. With laboratory. Offered winter. Student must meet prerequisite (ME 5750) or equivalent.

Equivalent Courses

ME665

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 6996 Graduate Engineering Project

Course Info

Course Title

Graduate Engineering Project

Course Description

Independent work on an advanced project in mechanical engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits.

Equivalent Courses

ME690

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

ME 6998 Master's Thesis Research

Course Info

Course Title

Master's Thesis Research

Course Description

Directed research leading to a master's thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ME 691.

Equivalent Courses

ME691

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours
1	Max: 8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	9

ME 7200 Continuum Mechanics

Course Info

Course Title

Continuum Mechanics

Course Description

Foundations in vector and tensor fields, kinematics of deformation, measures of strain and analysis of stress, equations of motion, compatibility conditions, constitutive equations, thermodynamics of deformation. Study of infinitesimal elasticity, ideal fluids, ideal elastoplasticity, processing, and material capabilities are studied in a systems context. Offered winter, odd years. Comments: Formerly ME 610 and ME 510.

Equivalent Courses

ME510, ME610

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:
4

ME 7210 Vibration Analysis

Course Info

Course Title

Vibration Analysis

Course Description

Linear vibrations in time and frequency domains. Lumped parameter mechanical systems. D'Alembert's and Hamilton's principles; Lagrange's equations. Free eigenvalue problem. Continuous systems. Response to non-periodic excitation. Numerical integration methods. Finite element and transfer matrix methods. Geared systems and torsional vibration of IC engines. Use of MATLAB and MSC/NASTRAN. Prerequisite(s): Student must meet prerequisite (ME 6210) or equivalent. Comments: Formerly ME 624 and ME 524.

Equivalent Courses

ME524, ME624

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 7220 Nonlinear Vibrations

Course Info

Course Title

Nonlinear Vibrations

Course Description

Analysis of time-varying and nonlinear vibratory systems; Geometric analysis of nonlinear systems; Equilibria; Stability and bifurcations; Introduction to numerical integration; Perturbation techniques; Primary-, super-, and sub-harmonic resonances in forced response; Nonlinear jump frequencies; Parametrically-excited systems; Nonlinear vibration of multi-degree-of-freedom and continuous systems; Internal resonances. Prerequisite: Graduate Standing

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

ME 7410 Advanced Finite Elements

Course Info

Course Title

Advanced Finite Elements

Course Description

Nonlinear finite element formulation for large deformation, plasticity and creep; incremental and iterative solution technique; design optimization; use of a finite element code in engineering applications such as stamping, metal forming, contact mechanics, buckling analysis, mechanics of composites and nonlinear transient dynamics. Offered winter, even years. Prerequisite(s): Student must meet prerequisite (ME 6410).

Equivalent Courses

ME669

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 7510 Gas Dynamics

Course Info

Course Title

Gas Dynamics

Course Description

Fundamental theories and applications of high-speed aerodynamics are the major subjects of the course. One-dimensional gas dynamics and wave motion. Shock waves in supersonic flow. Flow in ducts and wind tunnels. The equations of three dimensional frictionless flow. Small-perturbation theory. Slender body theory. The similarity rules of high-speed flow and methods of measurement. Transonic flow. The method of characteristics. Prerequisite(s): Student must meet prerequisite (ME 5510).

Equivalent Courses

ME639

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 7660 Adv Fatigue Anal & Design

Course Info

Course Title

Advanced Fatigue Analysis and Design

Course Description

Fundamental fatigue models for multi-axial states of stress and strain, nonlinear fatigue damage theories, basics of elastic fracture mechanics, fatigue of welded joints, and theories of plasticity. Engineering case studies are considered. Offered winter, even years. Prerequisite(s): Student must meet prerequisite (ME 6660) or equivalent.

Equivalent Courses

ME662

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 7730 Adv Fasteners & Bolted Joints

Course Info

Course Title

Advanced Fasteners and Bolted Joints

Course Description

Vibration loosening under vibration and impact loading, fatigue analysis, gasketed joints, fastener tribology, corrosion, Hydrogen Embrittlement, Stress Corrosion Cracking (SCC), elastic interaction, process optimization, nondestructive testing, ultrasonic control of fastener tightening, optical control of clamping load, failure analysis, case studies, graduate term paper. Offered Fall, even years. Prerequisite(s): Student must meet prerequisite (ME 4730 or ME 5730).

Equivalent Courses

ME689

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:

4

ME 7900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Advanced study of special topics in mechanical engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ME 795.

Equivalent Courses

ME795

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	8

ME 7970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Advanced independent study in a special area in mechanical engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly ME 794.

Equivalent Courses

ME794

College/School

School of Egr. and Comp. Sci.

Department

Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

ME 8999 Doctoral Dissertation Research

Course Info

Course Title
Doctoral Dissertation Research

Course Description
Directed research toward the doctoral dissertation in mechanical engineering. May be taken more than once for a minimum of 24 credits. Formerly ME 790.

Equivalent Courses
ME790

College/School
School of Egr. and Comp. Sci.

Department
Mechanical Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

MGT 5260 International Business

Course Info

Course Title
International Business

Course Description
Examination of the international business environment, including cultural, economic, social, political, legal and financial dimensions. Topics include: strategic planning, production and distribution logistics, technology, transfer pricing, risk analysis. Accounting, finance, marketing, information systems and human resources in a global setting will be introduced. Multinational corporations, regional agreements and public policy round out the course. Prerequisite: Student must be at the end of their MBA program and have the permission of the Director of Graduate Business Programs..

Equivalent Courses
MGT526, MGT626

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MGT 5330 Leading DEI in Organizations

Course Info

Course Title

Leading Diversity, Equity and Inclusion in Organizations

Course Description

Covered through the lens of organizational leadership; definitions, history, and science of social justice, the legal environment, and current best practices for fostering diversity and inclusion. Learn to bench mark current organizations activities through the use of data, leadership strategies, and fostering a culture of diversity.

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 5350 Policy, Strategy & Goals

Course Info

Course Title

Policy, Strategy and Goals

Course Description

Application of management tools of economics, statistics, organizational behavior, accounting, marketing, finance, operations management and management information systems to the analysis of organizational case studies. International and ethical issues related to strategic management are discussed. Formerly MGT 535. Prerequisite: Student must be at the end of their MBA program and have permission of the Coordinator of Graduate Business Programs.

Equivalent Courses

MGT535

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 5360 Policy, Strategy, Goals-Intn'l

Course Info

Course Title

Policy, Strategy and Goals-International

Course Description

An alternate capstone to the MBA program, where all facets of knowledge acquired through the core curriculum are used to analyze, assess, and formulate strategic plans to address the complex issues in the global marketplace. This course provides students a venue to develop strategic plans form a global lens. Formerly MGT 536.

Equivalent Courses

MGT536

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 5500 Legal Environment of Business

Course Info

Course Title

Legal Environment of Business

Course Description

Examination of the legal environment as it affects business, emphasizing the U.S. and international legal systems, ethical analysis of public policy and managerial decisions, functions and powers of regulatory agencies, and the laws relating to securities, business organizations, employment practices, antitrust and the environment. Formerly MGT 550.

Equivalent Courses

MGT550

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	1	3
NR		

MGT 5900 Special Topics in Management

Course Info

Course Title
Special Topics in Management

Course Description
The analysis of topics of current interest in management. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MGT 6900.

Equivalent Courses
MGT6900

College/School
School of Business Admin.

Department
Management & Marketing

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MGT 6110 Master's Project

Course Info

Course Title
Master's Project

Course Description
An intense study of a practical management problem that requires the collection and analysis of data in an actual organizational setting and the presentation of recommendations to solving the problem to the management of the organization. The final project report is to be submitted in approved format to the Office of Graduate Business Programs and the sponsoring faculty member. A written contract must be prepared and approved by department chair and Office of Graduate Business Programs before registration is permitted. Student must have prior approval of instructor.

Equivalent Courses
MGT611

College/School
School of Business Admin.

Department
Management & Marketing

Credits
Credit Hours

Units:
6

MGT 6380 Labor Management Relations

Course Info

Course Title

Labor-Management Relations

Course Description

Analysis of management-employee relations in modern organizations and public policy in labor-management areas. Formerly MGT 638.

Prerequisites: ORG 5300 or its equivalent.

Equivalent Courses

MGT638

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 6420 Supply Chain Purchasing

Course Info

Course Title

Supply Chain Purchasing

Course Description

Strategic issues in purchasing. Topics covered include: distinction between cost and price; study of relationships with suppliers, negotiations and commodity strategies. Supplier evaluation techniques will also be discussed. This course will be helpful to both procurement and sales professionals. Formerly MGT 642.

Prerequisite: MKT 5600 and POM 5210 or their equivalents.

Equivalent Courses

MGT642

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 6560 Entrepreneurship

Course Info

Course Title

Entrepreneurship

Course Description

Study of entrepreneurship (including intrapreneurship) for students who are thinking of starting their own company or are striving to promote innovation within an established company. The course focuses on assessing venture feasibility, analyzing and planning product and service initiatives, and obtaining financing. The course will also provide a realistic preview of the challenges and excitement of entrepreneurship. Formerly MGT 656.

Equivalent Courses

MGT656

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 6600 Launching/Managing Small Bus

Course Info

Course Title

Launching and Managing Small Businesses

Course Description

Analysis of the role of small businesses in the U.S. economy, the Small Business Administration, franchise opportunities, consulting as a business and the launching, financing and managing of a small business. A significant project is required. Student must meet the prerequisites (ECN 521, ACC 512, FIN 533, MIS 524, MKT 560, POM 521) or their equivalents.

Equivalent Courses

MGT660

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 6700 Business Ethics

Course Info

Course Title

Business Ethics

Course Description

The examination of business ethics and morality as they shape and influence the business environment. The student will develop an awareness of problem areas in the conduct of business. Some of the issues discussed can include but are not limited to: conflicts of interest, honesty, environmental issues, whistle blowing and ethical theory. Formerly MGT 670. Prerequisite: MGT 5500 or its equivalent.

Equivalent Courses

MGT670

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MGT 6900 Special Topics in Management

Course Info

Course Title

Special Topics in Management

Course Description

The analysis of topics of current interest in management. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MGT 680.

Equivalent Courses

MGT680

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	9

MGT 6901 Special Topics: Int'l Business

Course Info

Course Title

Special Topics in International Business

Course Description

The analysis of topics of current interest in international business.Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MGT 681. Prerequisite: MGT 5260 or its equivalent.

Equivalent Courses

MGT681

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
9

MGT 6902 Spec Topics:
Entrepreneurship

Course Info

Course Title

Special Topics in Entrepreneurship

Course Description

The analysis of topics of current interest in entrepreneurship. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MGT 682.

Equivalent Courses

MGT682

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
9

MGT 6970 Independent Study: Management

Course Info

Course Title
Independent Study in Management

Course Description
Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly MGT 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses
MGT690

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

MGT 6971 Independent Study: Int'l Bus

Course Info

Course Title
Independent Study in International Business

Course Description
Independent individual research on a topic chosen by the student in consultation with the instructor. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly MGT 691. Prerequisites: Student must have prior approval of instructor.

Equivalent Courses
MGT691

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

MGT 6972 Ind Study in Entrepreneurship

Course Info

Course Title

Independent Study in Entrepreneurship

Course Description

Independent individual research on a topic chosen by the student in consultation with the instructor. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Student must have prior approval of instructor.

Equivalent Courses

MGT692

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

6

MIS 604 Intro Databases/Data Warehouse

Course Info

Course Title

Introduction to Databases and Data Warehouses

Course Description

An introductory yet comprehensive coverage of data modeling, database design and implementation, SQL, and data warehousing. Provides a theoretical foundation and extensive hands-on experience with relational and multi-dimensional databases. Includes introductory data mining concepts.

Equivalent Courses

MIS508

College/School

School of Business Admin.

Department

MIS

Credits

Credit Hours

Units:

3

MIS 5040 Intro Database/Data Warehouse

Course Info

Course Title

Introduction to Databases and Data Warehousing

Course Description

An introductory yet comprehensive coverage of data modeling, database design and implementation, SQL, and data warehousing. Provides a theoretical foundation and extensive hands-on experience with relational and multi-dimensional databases. Includes introductory data mining concepts. Prerequisites: QMM 5100 and MIS 5240 or their equivalents

Equivalent Courses

MIS5140

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MIS 5050 Systems Analysis and Design

Course Info

Course Title

Systems Analysis and Design

Course Description

This course focuses on the systems development life cycle and prototyping methodologies emphasizing the current trends in analysis, design and implementation of information systems. Some topics covered include requirements elicitation, feasibility and analysis, structural and behavioral modeling using UML, translating analysis models into design specifications, input, output and interface design, implementation and testing. Course involves semester-long project. Prerequisites: MIS 5140 or its equivalent.Approved Slash Course. Credit can only be earned for MIS 5050 or MIS 4050.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MIS 5060 Managing Info Sys Projects

Course Info

Course Title

Managing Information Systems Projects

Course Description

This course presents an overview of general project management techniques, methodologies, and their application to information systems project management. In addition, this course examines issues involved in managing information systems projects including project scheduling, measurement, assessment, budgeting and human resource management issues. The course also addresses specific software planning issues such as effort estimation, contingency planning, risk management and the application of user acceptance software process maturity models. Cross-listed with MIS 4060. Prerequisite(s) MIS 5040 and have completed a course in Information Systems. Formerly MIS 5160

Equivalent Courses

MIS5160

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

3

MIS 5170 Practical Cyber Security Funda

Course Info

Course Description

This course introduces a Cyber Security Framework that organizations can use to implement a sound information security program. It will provide hands-on experience with tools, techniques and processes including lab exercises, demos, case studies and homework assignments. Emphasis on how to interpret an information security framework and build it into a measurable and effective security program. Previous course: MIS 5800, Information Security Project.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MIS 5180 IS Risk Analys & Sec Cont Dev

Course Info

Course Title

IS Risk Analysis and Security Controls Development

Course Description

This course introduces the fundamental concepts and techniques for conducting risk analysis of an information system and the developing security controls for the system. The major topics include information assets classification, risk identification, risk assessment, security controls design, security control implementation, maintenance and monitoring. Involves projects. Prerequisite: MIS 5170

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MIS 5240 Enterprise Information Systems

Course Info

Course Title

Enterprise Information Systems

Course Description

The strategic use of information technology (IT) in the enterprise. Topics include intra-organizational systems, inter-organizational systems, the use of IT in a competitive environment, control of IT, IT resource planning and organizational issues for the management of information systems. Formerly MIS 524.

Equivalent Courses

MIS524

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MIS 5460 Business Analytics

Course Info

Course Title
Business Analytics

Course Description
Introduces a range of topics, tools and technologies for modeling, analysis and visualization of business related data using spreadsheets. In addition to providing an introduction to more advanced analytics techniques such as simulation, optimization and predictive modeling, students learn the basics of Excel VBA programming for creating spreadsheet based analysis tools. Prerequisite(s) QMM 5100 and MIS 5240.

Equivalent Courses
MIS546, MIS646

College/School
School of Business Admin.

Department
Decision & Info Sciences

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MIS 5470 Prac. Comp for Data Analytics

Course Info

Course Title
Practical Computing for Data Analytics

Course Description
This course provides hands-on experience necessary to analyze and identify patterns and insights from large business data sets. Programmatic analytical tools such as R, Python and SAS will be introduced. Analytics tasks such as data acquisition, data cleansing, and preparation, analysis and visualization and communication of the results will be emphasized. Students will also be exposed to building, training and testing various machine learning, data mining and statistical models. Cross-listed with MIS 4470, credits cannot be received for both MIS 5470 and MIS 4470. Prerequisite MIS 5240 and QMM 5100 or their equivalents.

Equivalent Courses
MIS4470, MIS547

College/School
School of Business Admin.

Department
Decision & Info Sciences

Credits
Credit Hours

Units:
3

MIS 5480 Adv Analytics with Python

Course Info

Course Title

Advanced Analytics with Python

Course Description

This course focuses on advanced topics in business analytics using Python. Some of the topics covered include modeling with object-oriented programming, simulation models, advanced regression models, using Python for spreadsheet tasks, geospatial analysis and various basic software engineering concepts such as version control, model implementation, and software development practices. This course is cross listed with MIS 4480. Credit cannot be received for both MIS 5480 and MIS 4480 Prerequisite(s): MIS 5470

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

MIS 5500 Web Analytics

Course Info

Course Title

Web Analytics

Course Description

This course provides a practical, hands-on approach to understanding web metrics data, implementation and use of Google Analytics, measurement of web marketing strategies (e.g. digital campaigns, pay-per-click, search engine optimization, social media) and how to take action based on web analytics data. Course work involves case studies, analysis and interpretation of real-world data, and implementation of web analytics tools. Prerequisite(s): MIS 5240 and QMM 5100 or have completed a course in statistics.

Equivalent Courses

MIS550

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5560 Intro to Data Science

Course Info

Course Title

Introduction to Data Science

Course Description

This course will survey the foundational topics in data science by reviewing the steps of completing data science projects, and also introducing data analytics tools and modeling techniques used for solving business management and decision-making problems. The main focus of this course will be on data science knowledge discovery process, data mining, predictive modeling, data visualization, classification, clustering, and decision support. By the end of this course, students should be able to prepare data for mining, set up classification and clustering data mining tools, and understand the advantages and pitfalls of different modeling techniques. Prerequisite(s) QMM 5100 or have completed a course in statistics.

Equivalent Courses

MIS4560, MIS636

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5600 Deep Learning/Text Analytics

Course Info

Course Title

Deep Learning and Text Analytics

Course Description

This course provides an introduction to deep learning and text analytics. It covers a range of topics from basic neural networks, convolutional and recurrent neural network structures, deep unsupervised and reinforcement learning. It also discusses concepts related text analytics such as natural language processing, topic extraction, content management and sentiment analysis. A variety of tools and platforms such as Python, SAS Viya, TensorFlow/Keras, and PyTorch, will be used for building and testing deep learning models. Prerequisite(s) MIS 3050 or have completed a course in programming. Knowledge of Python programming preferred.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5630 Intro to Networks

Course Info

Course Title

Introduction to Networks

Course Description

Technology, design, management, and use of data, voice, image, and video communication networks. Topics include local area networks, wide area networks, telephone systems, electronic mail, transborder data flows and communications protocols. Includes exercises using various network configurations.

Equivalent Courses

MIS563

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5640 Network and Security Mgmt

Course Info

Course Title

Network and Security Management

Course Description

This course provides a general overview of communications network design. Relevant data communication hardware and software characteristics are examined. Students are introduced to network models, and design of local area networks and wide area network along with intranet and extranet. The impact of communications technology on organizations as well as trends in the telecommunications industry are explored. Prerequisite(s): MIS 5630 or its equivalent.

Equivalent Courses

MIS564, MIS618

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5700 IS Security

Course Info

Course Title

IS Security

Course Description

This course addresses issues pertaining to ensuring the security of organizational and personal information systems. Topics covered include: cryptography, analysis of threats, problems particular to networks, vulnerability and risk assessment, identification and authentication, certificates, credentials, organizational security policies, and the human factor.

Equivalent Courses

MIS640

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5750 Mobile Sec & Secure App Dev

Course Info

Course Title

Mobile Security and Secure Application Development

Course Description

This course first presents fundamental concepts of wireless security and the use of mobile apps in organizations and then introduces how to design and code secure mobile apps with PHP and SQL. Involves projects. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS4750

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5800 Information Security Project

Course Info

Course Title

Information Security Project

Course Description

This course introduces a Cyber Security Framework that organizations can use to implement a sound information security program. It will provide hands-on experience with tools, techniques and processes including lab exercises, demos, case studies and homework assignments. Emphasis on how to interpret an information security framework and build it into a measurable and effective security program. Prerequisite: MIS 5180

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 5810 Digital Forensic Analysis

Course Info

Course Title

Digital Forensics Analysis and Incident Response

Course Description

This course presents an overview of the principles and practices of digital investigation. It emphasizes the fundamentals and importance of digital forensics. Students will learn different techniques and procedures that assist in conducting digital investigation. This course focuses mainly on physical storage media analysis and volume analysis. It covers the major phases of digital investigation such as preservation, analysis and acquisition of artifacts that reside in hard disks and random-access memory.*Approved Slash Course. Credit can only be earned for MIS 4810 or MIS 5810.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MIS 5860 Adv App of Analyt Cyber Sec

Course Info

Course Title

Advanced Application of Analytics in Cyber Security

Course Description

This course introduces advanced data analytics techniques used to investigate cyber security problems. Students will learn how to gather, process, store and visualize security-related data as well as the application of various statistical and machines learning techniques to detect intrusion and malicious activities. Through the study and application of data analytics – including cluster analysis, supervised machine learning, anomaly detection, and visualization – this course will address a suite of cybersecurity topics including cyber-attacks, anomaly detection, vulnerability analysis, strategic manipulation and propaganda. Prerequisite(s): MIS 5560.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MIS 6060 Adv Databases/Big Data Mgt

Course Info

Course Title

Advanced Databases and Big Data Management

Course Description

This course addresses the problems encountered by organizations with distributed and networked databases. Topics include transaction management, concurrency control, deadlocks, replicated data management, query processing and reliability. Database performance and recovery are also covered. Prerequisite(s): MIS 5040 or its equivalent.

Equivalent Courses

MIS606

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

MIS 6120 Info Security Legal Comp Ethic

Course Info

Course Title

Information Security Legal Compliance and Ethics

Course Description

The course introduces major federal laws and regulations related to information security, highlights specific state data projection and breach notification laws, industry standards and the involvement in data security laws of regulatory agencies and covers an organization's legal compliance plan. Prerequisite(s): MIS 5240 or its equivalent.

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

MIS 6200 Electronic Commerce

Course Info

Course Title

Electronic Commerce

Course Description

This course provides students with an analytical and technical framework to understand the emerging world of e-commerce. Topics include the complexities of the marketplace, design and implementation of an Internet business, and issues surrounding privacy, security and the protection of intellectual property on the Internet. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS620

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6220 Business Object Development

Course Info

Course Title

Business Object Development

Course Description

The primary focus of the course is on the principles and applications of object-oriented methods in information systems. Object-oriented concepts and software design and programming principles will be introduced. The purpose of the course is to train students to write reasonably complex business application programs using higher level languages such as Java. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS622

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6250 IT Planning and Strategy

Course Info

Course Title

IT Planning and Strategy

Course Description

Using a variety of case studies, this course links the business strategy of a firm to its IT/IS strategy and assesses the impact of the strategy on performance and competitiveness. Issues such as project prioritization and risk management are also addressed. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS625

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6300 Manag Gbl Srcg IT & IT En Svc

Course Info

Course Title

Managing Global Outsourcing of IT and IT Enabled Services

Course Description

This course explores the drivers of the globalization of IT service delivery along with the managerial and technological issues related to managing the outsourcing of information technology and business process services. Prerequisite: MIS 5240

Equivalent Courses

MIS630

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6410 IS Privacy

Course Info

Course Title

IS Privacy

Course Description

This course addresses issues pertaining to privacy and intellectual property both from the standpoint of the organization and the individual. It focuses on issues that have become increasingly relevant with the spread of information technology. Topics include: regulatory and technological choices for privacy, the impact of the use of database technology on privacy, global differences in privacy laws, uses of marketing and privacy, intellectual property law and software, software contracts, the concept of intellectual property piracy, and historical change in patents, copyrights, and trademarks. The course also explores ethical dilemmas associated with both privacy and intellectual property. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS641

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6420 IS Issues in Supply Chain Mgt.

Course Info

Course Title

IS Issues in Supply Chain Management

Course Description

The role of information systems in advancing in advancing supply chain integration, management and coordination. Aspects related to logistics, operations, marketing, enterprise information resource planning, and electronic commerce solutions are included. Development and use of internet and extranet applications. Prerequisite(s): MIS 5240 and POM 5210

Equivalent Courses

MIS642

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6430 Intell Property/Public Domain

Course Info

Course Title

Intellectual Property and the Public Domain in the Age of Remix

Course Description

IT developments have enabled inexpensive copying, production of cultural artifacts and software, distribution of these artifacts, and remixing. All of this has disrupted our notions of so called intellectual property. Topics include historical change in IP law, the importance of the public domain for cultural production, and alternatives to current IP regimes. Case discussion and a remix project are included. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS643

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6480 Issues: International IT

Course Info

Course Title

Issues in International Information Technology

Course Description

IT environments around the world, national infrastructures and regulatory regimes, global IT application development and management strategies, management support systems. The critical role of IT in the success of global finance, marketing, manufacturing, trade and accounting practices. Perspectives include ethical, cultural technological, political, social, legal, regulatory, and demographic. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS648

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

MIS 6900 Special Topics in MIS

Course Info

Course Title

Special Topics in Management Information Systems

Course Description

An advanced course involving study of current research issues and recent developments in IT and IS management. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Prerequisites vary based on topic. Review special course section in the Schedule of Classes. Prerequisite(s): MIS 5240 or its equivalent.

Equivalent Courses

MIS680

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MIS 6940 Project Seminar

Course Info

Course Title

Project Seminar

Course Description

This course will explore a variety of topics related to IT Management in a seminar format. Each student will also complete an in-depth analysis of an IT Management issue. Specific project topics will be chosen by the student and approved by the instructor. Prerequisite: Student must be in the final semester of the MSITM program or have permission of the Director of Graduate Business Programs.

Equivalent Courses

MIS650

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
3

Maximum Hours
3

MIS 6970 Independent Study: MIS

Course Info

Course Title

Independent Study in Management Information Systems

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly MIS 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

MIS690

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
6

MKT 5270 Marketing & Sustainability Mgt

Course Info

Course Title
Marketing & Sustainability Management

Course Description
This course examines the relationship between marketing and sustainability in a changing physical, social, and economic world. Sustainability is approached from a systems perspective; students will gain an understanding of how flexibility, resilience, innovation, and the consequences of management decisions impact value creation and survival of the enterprise. Equivalent: MKT 6900.

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MKT 5600 Marketing Management

Course Info

Course Title
Marketing Management

Course Description
Comprehensive study of the foundations of marketing and the management of the marketing function including the role of marketing in society and within the business enterprise; the use of marketing to gain competitive advantage, and the practice of marketing in a rapidly changing business environment. Formerly MKT 560.

Equivalent Courses
MKT560

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:	Credit Hours Max:
2	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MKT 5800 App Data Analytic MKT/Bus Stra

Course Info

Course Title

Applied Data Analysis for Marketing & Business Strategy

Course Description

Use data and programs to apply concepts in marketing and business strategy to approach complex business problems, resulting in more informed and effective decisions. Learn to summarize datasets, recognize trends, and test thoughts with data using analytical software; assess results and present findings through data visualization and storytelling skills. Prerequisite(s): MKT 5600 and QMM 5100, or with instructor permission. MKT 5600 may be waived for MSITM or MSBA students. Equivalent: MKT 6900 - ST: Data Analytic MKT/Bus Strategy.

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

MKT 5900 Special Topics in Marketing

Course Info

Course Title

Special Topics in Marketing

Course Description

Applications of recent theoretical and empirical findings in marketing. Students may work on a project, in cooperation with local firms, where they apply the tools acquired in marketing and related courses to a current managerial problem. Topics vary. Recent topics included industrial marketing, promotional strategies and international marketing. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MKT 6900. Prerequisite: MKT 5600 or its equivalent.

Equivalent Courses

MKT5600

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

MKT 6040 Consumer Behavior

Course Info

Course Title

Consumer Behavior

Course Description

Study of basic factors in influencing consumer behavior, with emphasis on structuring and managerial use of consumer decision-making models. Social-psychological and economic variables, including learning, motivation, attitude, personality, small groups, demographic and cultural factors are examined. Formerly MKT 604. Prerequisite: MKT 5600 or have completed a course in marketing.

Equivalent Courses

MKT604

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6050 Marketing Research

Course Info

Course Title

Marketing Research

Course Description

Focus on the generation and management of information in marketing decisions. Covers the evaluation of additional marketing information; how it is acquired and used; the manager's role in market research; the researcher's role in supplying marketing information. Formerly MKT 605. Prerequisite: MKT 5600 or have completed a course in marketing.

Equivalent Courses

MKT605

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6080 Strategic Marketing

Course Info

Course Title
Strategic Marketing

Course Description
This course examines issues such as market definition based on customer-oriented approaches, developing a competitive advantage and making an organization market-driven. In addition, the tools and techniques covered are recent, and likely to be useful in developing core competencies in strategic analysis not typically covered elsewhere. Formerly MKT 608. Prerequisite: MKT 5600 or have completed a course in marketing management.

Equivalent Courses
MKT608

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code
NR

MKT 6100 Digital Marketing Strategy

Course Info

Course Title
Digital Marketing Strategy

Course Description
This course explores the conceptual foundations underlying digital marketing strategies, and the associated implementation plans necessary for successful execution. Students will learn about the concepts and theories relevant to digital marketing and the practical application of various digital marketing tools. Prerequisite (s): MKT 5600

College/School
School of Business Admin.

Department
Management & Marketing

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

MKT 6200 Distribution Channels Mgt

Course Info

Course Title

Distribution Channels Management and Logistics

Course Description

The management of the distribution function. Study of the management of marketing channels systems comprising of wholesalers, agents, retailers and other agencies. Logistics management and supply chain management in the fulfillment of marketing objectives. Formerly MKT 620. Prerequisite: MKT 5600 or have completed a course in marketing management.

Equivalent Courses

MKT620

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6250 Supply Chain Logistics

Course Info

Course Title

Supply Chain Logistics

Course Description

This course focuses on the role of logistics in adding value to the supply chain and in creating supply chain excellence. Topics covered will include the theory, the principles, and the practice of logistics and supply chain management, demand management, customer service, supply management, inventory flows, facilities and warehousing, transportation, third-party and fourth-party logistics, logistics information systems, logistics technology and infrastructure, connectivity, supply chain transparency, reverse logistics, and performance measurement in logistics and supply chain management. Formerly MKT 625. Prerequisite: MKT 5600 or have completed a course in marketing management.

Equivalent Courses

MKT625

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6500 International Marketing

Course Info

Course Title

International Marketing

Course Description

The application of marketing principles to problems associated with marketing products and services to different nations. Cases in international marketing will be analyzed. Formerly MKT 650.

Prerequisite: MKT 5600 or have completed a course in marketing.

Equivalent Courses

MKT650

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6600 Entrepreneurial Marketing

Course Info

Course Title

Entrepreneurial Marketing

Course Description

Entrepreneurs face unique marketing challenges. New services and products create industries where there were none before.

Furthermore, new companies usually have few resources to support marketing, and a high need to learn from the marketing function. This course will teach students how they may address these challenges.

Prerequisite(s): MKT 5600 or its equivalent.

Equivalent Courses

MKT660

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6700 Business to Business Marketing

Course Info

Course Title

Business to Business Marketing

Course Description

Study of the area of marketing that addresses the needs of the organizational customer in industry, government and institutions. The special challenges of the industrial market, such as assessing marketing opportunities, the organizational buying process, and formulating and evaluating industrial marketing strategy and performance are discussed. Formerly MKT 670. Prerequisite: MKT 5600 or have completed a course in marketing.

Equivalent Courses

MKT670

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6730 Product and Brand Management

Course Info

Course Title

Product and Brand Management

Course Description

Provides a strong overview and foundation of the product and brand management functions within an organization. As a truly integrative course, it is grounded in the fundamentals of marketing concepts and tools, and theoretical frameworks from brand management, product development and strategy. Prerequisite: MKT 5600

Equivalent Courses

MKT673

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6750 Relations Global

Course Info

Course Title

Customer and Supplier Relationships in the Global Enterprise

Course Description

No organization is an island. In today's highly competitive markets it is essential that an organization relate to its customers and suppliers in a manner that maximizes the potential benefits to all members of the Global Enterprise, from its customers through the organization to its 2nd and 3rd tier suppliers. This course focuses on determining what those relationships should be and how they can be implemented in business-to-business environments. Emphasis is placed on customer and supplier relationships in manufacturing industries, particularly the automotive industry. Formerly MKT 675. Prerequisite: MKT 5600 or have completed a course in marketing.

Equivalent Courses

MKT675

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

MKT 6800 Strategic Marketing

Course Info

Course Title

Strategic Marketing

Course Description

This course examines issues such as market definition based on customer-oriented approaches, developing a competitive advantage, and making an organization market-driven. In addition, the tools and techniques covered are recent, and likely to be useful in developing core competencies in strategic analysis not typically covered elsewhere. Formerly MKT 608 and MKT 6080. Prerequisite: MKT 5600 or have completed a course in marketing management.

Equivalent Courses

MKT6080

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

MKT 6900 Special Topics: Marketing

Course Info

Course Title

Special Topics in Marketing

Course Description

Applications of recent theoretical and empirical findings in marketing. Students may work on a project, in cooperation with local firms, where they apply the tools acquired in marketing and related courses to a current managerial problem. Topics vary. Recent topics included industrial marketing, promotional strategies and international marketing. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly MKT 680. Prerequisite: MKT 5600 or its equivalent.

Equivalent Courses

MKT680

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Maximum Hours

9

MKT 6970 Independent Study in Marketing

Course Info

Course Title

Independent Study in Marketing

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly MKT 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

MKT690

College/School

School of Business Admin.

Department

Management & Marketing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

6

ML 5020 Grammar Review Through Trans.

Course Info

Course Title

Grammar Review Through Translation: French, German or Spanish

Course Description

Review of grammar through translation of a wide variety of materials from the foreign language into English. Emphasis on theory of more complex grammatical structures. Introduction to translation theory. Term paper required. Formerly ML 520.

Equivalent Courses

ML520

College/School

College of Arts and Sciences

Department

Modern Languages & Literatures

Credits

Credit Hours

Units:

4

ML 5040 Frgn Lang Sem: Lang & Culture

Course Info

Course Title

Foreign Language Seminar: Language and Culture

Course Description

Focus on conversational skills in business contexts. Designed for students in the MBA and MACC programs who require language proficiency for business. Typical activities in the business environment will be taught. Formerly ML 504.

Course Attributes

Credit Continuing Education (CRCE)

Equivalent Courses

ML504

College/School

College of Arts and Sciences

Department

Modern Languages & Literatures

Credits

Credit Hours

Units:

3

ML 5050 Frgn Lang Sem: Conv & Culture

Course Info

Course Title

Foreign Language Seminar: Conversation and Culture

Course Description

Emphasis on broadening students' conversational skill in the foreign language in the business. Cultural differences, geography and business practices will be explored. Formerly ML 505. Prerequisite: ML 5040.

Course Attributes

Credit Continuing Education (CRCE)

Equivalent Courses

ML505

College/School

College of Arts and Sciences

Department

Modern Languages & Literatures

Credits

Credit Hours

Units:

3

ML 5210 Advanced Comp: FR, GER, SPN

Course Info

Course Title

Advanced Composition: French, German or Spanish

Course Description

Practice in written composition. Techniques of textual analysis and exposition are introduced. Term paper in the foreign language required. Formerly ML 521.

Equivalent Courses

ML521

College/School

College of Arts and Sciences

Department

Modern Languages & Literatures

Credits

Credit Hours

Units:

4

ML 5220 Advanced Oral Practice

Course Info

Course Title

Advanced Oral Practice: French, German or Spanish

Course Description

Practice in speaking at an advanced level, which may include style and delivery appropriate to formal and informal speaking situations. May include oral presentations, self-recording and critique. Students will research underlying principles and current issues in the concept of communicative competence in second language learning. Formerly ML 522.

Equivalent Courses

ML522

College/School

College of Arts and Sciences

Department

Modern Languages & Literatures

Credits

Credit Hours

Units:

4

MOR 5554 Linear & Integer Optimization

Course Info

Course Title

Linear and Integer Optimization

Course Description

Topics include linear and integer programming models, simplex method, complementary slackness, duality, sensitivity analysis, interior point methods, systems of alternatives and branch-price-cut. MOR 5554 is cross-listed with an undergraduate course, MOR 4554. Student may not receive credit for both courses.

Equivalent Courses

MOR554

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MOR 5555 Nonlinear Optimization

Course Info

Course Title

Nonlinear Optimization

Course Description

Topics include nonlinear programming, convex programming, unconstrained optimization, first and second order conditions, Constrained optimization, KKT conditions, quadratic programming and separable convex programming. MOR 5555 is cross-listed with an undergraduate course, MOR 4555. Student cannot receive credit for both courses.Prerequisite: MTH 2554 and MTH 2775 (or equivalent AND Basic programming skills

Equivalent Courses

MOR555

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

MOR 5556 Stochastic Models in OR

Course Info

Course Title

Stochastic Models in Operations Research

Course Description

Topics include probability theory, Poisson processes, queuing theory, birth and death processes and Markov chains. Required background includes courses in multivariable calculus and linear algebra. Formerly MOR 556.

Equivalent Courses

MOR556

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MOR 5558 Operations Research Models

Course Info

Course Title

Mathematical Modeling in Industry: Operations Research Models

Course Description

Models will be drawn from linear, integer, nonlinear and dynamic programming, stochastic processes, queuing theory, Markov chains, decision analysis, network theory and scheduling theory. Topics will vary but particular applications may include production planning and inventory control, capacity expansion, equipment replacement, optimal routing, project management, flow-shop and job-shop scheduling, Markov decision models, game theory and control theory. Formerly MOR 558. Prerequisite: MOR 5554 or instructor permission.

Equivalent Courses

MOR558

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MOR 5920 Directed Reading and Research

Course Info

Course Title

Directed Reading and Research

Course Description

Reading and independent research activities under faculty supervision. Formerly MOR 590. Prerequisite: Student must have permission of the graduate coordinator.

Equivalent Courses

MOR590

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

MSCI 6996 Embark MSCI Capstone Research

Course Info

Course Title

Embark Medical Sciences Capstone Research

Course Description

Dedicated time to complete Embark Capstone project and submit and present final project. Students set individual research goals at the beginning of the course and submit documentation of Capstone project progress at the conclusion of the course. Face-to-face meetings may be required. May be taken up to three times. Prerequisites: Admission to the MS in Medical Sciences program.

College/School

OUWB School of Medicine

Department

Medical School

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

RP

Repeat Limit

2

Maximum Hours

6

MTH 5014 History of Mathematics

Course Info

Course Description

Mathematics from ancient to modern times: its growth, development and place in culture. MTH 5014 is cross-listed with MTH 4014.

Student cannot receive credit for both courses.

Equivalent Courses

MTS5014, MTS516, MTS614

College/School

College of Arts and Sciences

Department

MTH

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5052 Advanced Calculus I

Course Info

Course Title

Advanced Calculus I

Course Description

The topology of the real number line and of n-dimensional Euclidean space, continuity and uniform continuity, derivatives, the Riemann integral, sequences and series, uniform convergence. Offered every fall. MTH 5052 is cross-listed with an undergraduate course, MTH 4552. Student cannot receive credit for both courses. Prerequisite(s): Required background includes courses in multivariable calculus and linear algebra.

Equivalent Courses

MTS5052, MTS517

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5053 Advanced Calculus II

Course Info

Course Title

Advanced Calculus II

Course Description

Improper integrals, derivatives and integrals in n-dimensional Euclidean space, implicit and inverse function theorems, differential geometry and vector calculus, and Fourier series. Offered every winter. MTH 5053 is cross-listed with an undergraduate course, MTH 4053. Students cannot receive credit for both courses. Prerequisite(s): MTH 5052 with a grade of (B-) or higher.

Equivalent Courses

MTS5053, MTS518

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5062 Geometric Structures

Course Info

Course Title

Geometric Structures

Course Description

A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry and transformation geometry. MTH 5062 is cross-listed with an undergraduate course, MTH 4062. Student may not receive credit for both courses.

Equivalent Courses

MTS5062, MTS562, MTS620

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5072 Number Theory with Cryptograph

Course Info

Course Title

Number Theory with Cryptography

Course Description

This course serves as an introduction course to number theory. Topics to be covered include structure of the integers, prime factorization, congruences, multiplicative functions, primitive roots and quadratic reciprocity, and selected applications including cryptography. MTH 5072 is cross-listed with an undergraduate course, MTH 4072. Student may not receive credit for both courses.

Equivalent Courses

MTS5072, MTS572, MTS672

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5075 Abstract Algebra I

Course Info

Course Title

Abstract Algebra I

Course Description

Groups, subgroups, cosets, homomorphisms, quotient groups, rings, and ideals; field extensions and geometric constructions. MTH 5075 is cross-listed with an undergraduate course, MTH 4075. Student cannot receive credit for both courses.

Equivalent Courses

MTS5075, MTS514

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5076 Abstract Algebra II

Course Info

Course Title

Abstract Algebra II

Course Description

Polynomial rings, irreducibility of polynomials, field theory, solving polynomial equations, introduction to Galois theory and applications. MTH 5076 is cross-listed with an undergraduate course, MTH 4076. Student cannot receive credit for both courses.

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MTH 5551 Real Analysis

Course Info

Course Title

Real Analysis

Course Description

Lebesgue measure, measurable functions and the Lebesgue integral; convergence theorems; monotone functions, bounded variation and absolute continuity. The L_p spaces; product measures and Fubini's theorem; the Radon-Nikodym theorem. Required background: a course in advanced calculus. Formerly MTH 551.

Equivalent Courses

MTH551

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5555 Complex Analysis

Course Info

Course Title

Complex Analysis

Course Description

Analytic functions and the Cauchy-Riemann equations. Cauchy Integral Theorem, Cauchy integral formula, argument principle, Rouche's theorem. Taylor and Laurent series. Singularities and residues. Conformal mapping. Required background: a course in advanced calculus. A course in complex variables is recommended. Formerly MTH 555.

Equivalent Courses

MTH555

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5661 Topology I

Course Info

Course Title

Topology I

Course Description

Introduction to algebraic topology. Topics include elementary homotopy and homology theory. Required background: an introductory course in general topology. Formerly MTH 561.

Equivalent Courses

MTH561

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5662 Advanced Topics/Topology

Course Info

Course Title

Advanced Topics in Topology

Course Description

Topics in modern topology, chosen from uniform spaces, topological dimension theory, homology and co-homology theory, homotopy theory. Formerly MTH 562. Prerequisite: MTH 5661.

Equivalent Courses

MTH562

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5771 Algebra I

Course Info

Course Title

Algebra I

Course Description

Groups, Sylow theorems, solvable and simple groups, free groups, generators and relations of groups, finitely generated abelian groups, semi-direct products, extension of groups, rings, polynomial and power series rings, maximal and prime ideals of commutative rings, Euclidean domains, principal ideal domains, and unique factorization domain. Required background: a course in abstract algebra. Formerly MTH 571.

Equivalent Courses

MTH571

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5772 Algebra II

Course Info

Course Title

Algebra II

Course Description

Injective modules, projective modules, tensor products, modules over PID, decomposition theorems, linear algebra, field extensions, finite fields, geometric constructions, Galois theory, solvability by radicals, computing Galois groups of polynomials. Formerly MTH 572.

Equivalent Courses

MTH572

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 5905 Special Topics

Course Info

Course Title

Special Topics

Course Description

Study of some topics in applicable analysis and mathematical modeling. May be taken more than once. Formerly APM 505.Prerequisite(s): Student must have permission of the instructor.

Equivalent Courses

MTH505

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	4

MTH 5920 Directed Reading and Research

Course Info

Course Title

Directed Reading and Research

Course Description

Reading and independent research activities under faculty supervision. Student must have permission of the graduate coordinator. Formerly MTH 590.

Equivalent Courses

MTH590

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

MTH 6551 Functional Analysis I

Course Info

Course Title

Functional Analysis

Course Description

Metric spaces, category, compactness. Banach, Hilbert and Sobolev spaces. The Hahn-Banach theorem, open mapping theorem and Banach-Steinhaus theorem. Weak and weak* topologies. Elementary operator and spectral theory. Formerly MTH 651. Prerequisite: MTH 5551.

Equivalent Courses

MTH651

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 6552 Functional Analysis II

Course Info

Course Title

Functional Analysis II

Course Description

Distributions, Sobolev spaces, fixed point theorems, nonlinear operators, monotone and pseudomonotone operators. Formerly MTH 652. Prerequisite: MTH 6551.

Equivalent Courses

MTH652

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 6770 Algebraic Number Theory

Course Info

Course Title

Algebraic Number Theory

Course Description

Algebraic number fields, integrality and Noetherian properties, Dedekind domains, extensions, ramified and non-ramified extensions, ramification in Galois extensions, class groups and units, cyclotomic fields, L-functions, Dedekind zeta-function, Brauer relations. Formerly MTH 670. Prerequisite: MTH 5771.

Equivalent Courses

MTH670

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 6771 Commutative Algebra

Course Info

Course Title

Commutative Algebra

Course Description

Rings and ideals, modules, exact sequences, tensor products, integral dependence and valuations, the going-up and going-down theorem, chain conditions, Noetherian rings, discrete valuation rings, Dedekind domains. Formerly MTH 671. Prerequisite: MTH 5771.

Equivalent Courses

MTH671

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

MTH 6772 Algebraic Geometry

Course Info

Course Title
Algebraic Geometry

Course Description
Introduction to affine and projective spaces, algebraic varieties, maps between varieties, Hilbert's Nullstellensatz, Zariski topology, abelian varieties, the Riemann-Roch theorem, Jacobians of curves, sheaves and cohomology. Formerly MTH 672. Prerequisite: MTH 6771.

Equivalent Courses
MTH672

College/School
College of Arts and Sciences

Department
Mathematics and Statistics

Credits

Credit Hours

Units:
4

MUA 5000 Voice

Course Info

Course Title
Voice

Course Description
Individual lessons in voice. May be repeated for up to 10 credits. Formerly MUA 500.

Equivalent Courses
MUA500

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours	
Units:	Credit Hours
1	Max: 2

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	99	999
RP		

MUA 5000P Voice

Course Info

Course Title

Voice

Equivalent Courses

MUA500

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUA 5002 Piano

Course Info

Course Title

Piano

Course Description

Individual lessons on the piano. May be repeated for up to 10 credits. Formerly MUA 501.

Equivalent Courses

MUA501, MUA501P

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours
1	Max: 2

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code RP	9	99

MUA 5003 Applied Piano/Performer's Cert

Course Info

Course Title
Applied Piano (Performance Certificate)

Course Description
Individual lessons in piano. May be repeated. Formerly MUA 540.

Equivalent Courses
MUA540

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5005 Harpsichord

Course Info

Course Title
Harpsichord

Course Description
Individual lessons on the harpsichord. May be repeated for up to 10 credits. Formerly MUA 503.

Equivalent Courses
MUA503

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5011 Viola

Course Info

Course Title

Viola

Course Description

Individual lessons on the viola. May be repeated for up to 10 credits. Formerly MUA 505.

Equivalent Courses

MUA505

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5012 Violoncello

Course Info

Course Title

Violoncello

Course Description

Individual lessons on the violoncello. May be repeated for up to 10 credits.

Equivalent Courses

MUA506

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5013 Double Bass

Course Info

Course Title

Double Bass

Course Description

Individual lessons on the double bass. May be repeated for up to 10 credits. Formerly MUA 506.

Equivalent Courses

MUA507

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5020 Flute

Course Info

Course Title

Flute

Course Description

Individual lessons on the flute. May be repeated for up to 10 credits. Formerly MUA 508.

Equivalent Courses

MUA508

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5021 Oboe

Course Info

Course Title

Oboe

Course Description

Individual lessons on the oboe. May be repeated for up to 10 credits.
Formerly MUA 509.

Equivalent Courses

MUA509

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5022 Clarinet

Course Info

Course Title

Clarinet

Course Description

Individual lessons on the clarinet. May be repeated for up to 10 credits.

Equivalent Courses

MUA510

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5023 Bassoon

Course Info

Course Title

Bassoon

Course Description

Individual lessons on the bassoon. May be repeated for up to 10 credits. Formerly MUA 511.

Equivalent Courses

MUA511

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5024 Saxophone

Course Info

Course Title

Saxophone

Course Description

Individual lessons on the saxophone. May be repeated for up to 10 credits. Formerly MUA 524.

Equivalent Courses

MUA524

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5030 French Horn

Course Info

Course Title

French Horn

Course Description

Individual lessons on the French horn. May be repeated for up to 10 credits.

Equivalent Courses

MUA512

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5031 Trumpet

Course Info

Course Title

Trumpet

Course Description

Individual lessons on the trumpet. May be repeated for up to 10 credits. Formerly MU 513.

Equivalent Courses

MUA513

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5032 Trombone

Course Info

Course Title

Trombone

Course Description

Individual lessons on the trombone. May be repeated for up to 10 credits. Formerly MUA 514.

Equivalent Courses

MUA514

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5033 Euphonium

Course Info

Course Title

Euphonium

Course Description

Individual lessons on the euphonium. May be repeated for up to 10 credits. Formerly MUA 536.

Equivalent Courses

MUA536

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5034 Tuba

Course Info

Course Title

Tuba

Course Description

Individual lessons on the tuba. May be repeated for up to 10 credits. Formerly MUA 515.

Equivalent Courses

MUA515

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5040 Timpani

Course Info

Course Title

Timpani

Course Description

Individual lessons on the timpani. May be repeated for up to 10 credits. Formerly MUA 516.

Equivalent Courses

MUA516

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5041 Percussion

Course Info

Course Title

Percussion

Course Description

Individual lessons on percussion. May be repeated for up to 10 credits. Formerly MUA 517.

Equivalent Courses

MUA517

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5050 Harp

Course Info

Course Title

Harp

Course Description

Individual lessons on the harp. May be repeated for up to 10 credits. Formerly MUA 518.

Equivalent Courses

MUA518

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5051 Guitar (Classical)

Course Info

Course Title

Guitar (Classical)

Course Description

Individual lessons on the classical guitar. May be repeated for up to 10 credits. Formerly MUA 519.

Equivalent Courses

MUA519

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5060 Piano (Jazz)

Course Info

Course Title

Piano (Jazz)

Course Description

Individual lessons on the piano (jazz). May be repeated for up to 10 credits. Formerly MUA 530.

Equivalent Courses

MUA530

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5062 Trumpet (Jazz)

Course Info

Course Title

Trumpet (Jazz)

Course Description

Individual lessons on the trumpet (jazz). May be repeated for up to 10 credits. Formerly MUA 532.

Equivalent Courses

MUA532

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5063 Saxophone (Jazz)

Course Info

Course Title

Saxophone (Jazz)

Course Description

Individual lessons on the saxophone (jazz). May be repeated for up to 10 credits. Formerly MUA 533.

Equivalent Courses

MUA533

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5065 Percussion (Jazz)

Course Info

Course Title
Percussion (Jazz)

Course Description
Individual lessons on percussion (jazz). May be repeated for up to 10 credits. Formerly MUA 534.

Equivalent Courses
MUA534

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5066 Double Bass (Jazz)

Course Info

Course Title
Double Bass (Jazz)

Course Description
Individual lessons on double bass (jazz). May be repeated for up to 10 credits. Formerly MUA 535.

Equivalent Courses
MUA535

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5075 World Percussion

Course Info

Course Title

World Percussion

Course Description

May be repeated. Student must have permission of instructor.
Formerly MUA 525.

Equivalent Courses

MUA525

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5076 Applied Raga

Course Info

Course Title

Applied Raga

Course Description

Directed applied study in Indian Raga. May be repeated for additional credit. Prerequisite (s): Admission to graduate program, permission of the instructor.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5562 Instrumental Repertoire

Course Info

Course Title
Instrumental Repertoire

Course Description
Staples of the chamber music literature related to one's principal instrument. Major chamber works will be examined through readings that provide backgrounds of composers, circumstances regarding works and their composition, historical events, and musical style.

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5563 Instrumental Pedagogy

Course Info

Course Title
Instrumental Pedagogy

Course Description
Pedagogical techniques specific to the primary instrument of a music performance major.

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5564 Instrumental Performance Topic

Course Info

Course Title
Instrumental Performance Topics

Course Description
In-depth study of the repertoire and/or pedagogical techniques specific to the primary instrument of a music performance major.

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUA 5960 Applied Study/Secondary Area

Course Info

Course Title
Applied Study in a Secondary Area

Course Description
Applied study in a secondary instrument or voice. No final jury required. May be repeated for a maximum of 20 credits. Formerly MUA 549.

Equivalent Courses
MUA549

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:	Credit Hours
1	Max: 2

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUA 5996 Graduate Recital

Course Info

Course Title

Graduate Recital

Course Description

A concert or recital demonstrating the candidate's creative and artistic strengths. Credit will be awarded only upon approval of a specially-appointed jury committee.

Equivalent Courses

MUA595

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	5

MUA 6020 Applied Conducting

Course Info

Course Title

Conducting Apprenticeship

Course Description

An individual program under the supervision and in association with one of the major ensemble conductors of the music area. Student must have permission of instructor.

Equivalent Courses

MUS620

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	4

MUA 6996 Master's Recital

Course Info

Course Title

Master's Recital

Course Description

A concert or recital demonstrating the candidate's creative and artistic strengths. Credit will be awarded only upon approval of a specially-appointed jury committee. Formerly MUA 695.

Equivalent Courses

MUA601, MUA695

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUE 502 Community Chorus

Course Info

Course Title

Community Chorus

Course Description

Festival-type mixed chorus for citizens of the surrounding communities who possess vocal experience. Performance of varied choral literature. Meets in the evening. Graduate students are expected to perform one of the following activities or duties in addition: a musicological study of the work performed, section leader, section rehearsal assistant, assistant conductor, ensemble manager. May be repeated for credit.

College/School

College of Arts and Sciences

Department

MUE

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Maximum Hours
RP	99

MUE 505 Accompaniment Practicum

Course Info

Course Title

Accompaniment Practicum

College/School

College of Arts and Sciences

Department

MUE

Credits

Credit Hours

Units:	Credit Hours
0	Max:
	1

MUE 547 Rythm and Movement Workshop

Course Info

Course Title

Rhythm and Movement Workshop

Course Description

A study of percussion as related to dance. Emphasis will be on the inter-related nature of these two art forms.

College/School

College of Arts and Sciences

Department

MUE

Credits

Credit Hours

Units:	Credit Hours
0	Max:
	1

MUE 590 Accompaniment Practicum

Course Info

Course Title

Accompaniment Practicum

Course Description

Experience in piano accompaniment of vocal and instrumental solo and/or ensembles. May be repeated once for credit.

College/School

College of Arts and Sciences

Department

MUE

Credits

Credit Hours

Units:	Credit Hours
0	Max:
	1

Repeat Rules

Repeat Status Code

RP

Maximum Hours

2

MUE 5001 University Chorus

Course Info

Course Title

University Chorus

Course Description

Performance of a wide range of the large-group choral repertoire. May be repeated for credit.

Equivalent Courses

MUE501

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5004 Oakland Chorale

Course Info

Course Title

Oakland Chorale

Course Description

Performance of a wide range of choral chamber repertoire from Renaissance to the present. Membership by audition. May be repeated for credit.

Equivalent Courses

MUE504

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5004P Oakland Chorale

Course Info

Course Title
Oakland Chorale

Equivalent Courses
MUE504

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:
1

MUE 5015 Oakland Jazz Singers

Course Info

Course Title
Oakland Jazz Singers

Course Description
Ensemble performance of complex vocal jazz works. Development of jazz style and blend, scat-singing, solo production and microphone technique. Membership by audition. May be repeated for credit.

Equivalent Courses
MUE515

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours
0	Max: 1

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	99	999
RP		

MUE 5019 Chamber Orchestra

Course Info

Course Title
Chamber Orchestra

Course Description
Performance of chamber orchestra repertoire. Membership by audition. May be repeated for credit.

Equivalent Courses
MUE519

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5020 Oakland Symphony

Course Info

Course Title
Oakland Symphony

Course Description
Orchestral performance of repertoire from the 18th, 19th and 20th centuries. Several concerts per year, on- and off-campus. Accompaniments for solo concertos and university choral groups. Membership by audition. May be repeated for credit. Graded S/U.

Equivalent Courses
MUE520

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5029 Symphonic Band

Course Info

Course Title

Symphonic Band

Course Description

A non-auditioned ensemble of wind and percussion instruments for music majors and non-majors performing standard concert band literature. May be repeated for credit.

Equivalent Courses

MUE4029

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5031 Wind Symphony

Course Info

Course Title

Wind Symphony

Course Description

An ensemble of wind and percussion instruments performing standard concert band literature. Membership by audition. May be repeated for credit.

Equivalent Courses

MUE531

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5035 Brass Band

Course Info

Course Title

Brass Band

Course Description

Ensemble of brass and percussion instruments performing standard brass band literature. Membership by audition. May be repeated for credit.

Equivalent Courses

MUE535

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5040 Oakland University Jazz Band

Course Info

Course Title

Oakland University Jazz Band

Course Description

A big band jazz ensemble performing traditional and contemporary jazz literature. Experience will be gained in ensemble and improvisational performance. Membership by audition. May be repeated for credit.

Equivalent Courses

MUE540

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUE 5041 Jazz Improvisation Combos

Course Info

Course Title

Jazz Improvisation Combos

Course Description

Performance-based ensemble environment designed to provide the student with jazz improvisational understanding and skills. Study and performance of traditional and progressive instrumental and vocal repertoire. May be repeated for credit.

Equivalent Courses

MUE541

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

0

Credit Hours

Max:

1

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

9

Maximum Hours

99

MUE 5042 Creative Jazz Ensemble

Course Info

Course Title

Creative Jazz Ensemble

Course Description

Study and performance of traditional and progressive jazz repertoire. Ensemble is designed for, but not limited to, music students who play instruments not typically found in a jazz ensemble. May be repeated for credit.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

0

Credit Hours

Max:

1

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

MUE 5045 African Ensemble

Course Info

Course Title
African Ensemble

Course Description
Study and performance of drumming and xylophone traditions as related to African oral culture using authentic Ghanaian and Ugandan instruments. MUE 545.

Equivalent Courses
MUE545

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUE 5046 Steel Band

Course Info

Course Title
Steel Band

Course Description
Study and performance of various Trinidadian and Caribbean styles using handcrafted steel drums. May be repeated for credit.

Equivalent Courses
MUE546

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5048 World Percussion Ensemble

Course Info

Course Title

World Percussion Ensemble

Course Description

Advanced study and performance of world percussion traditions. May be repeated for credit.

Equivalent Courses

MUE548

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUE 5050 Opera Workshop

Course Info

Course Title

Opera Workshop

Course Description

Study and experience in various forms of operatic music theatre. May be repeated for credit.

Equivalent Courses

MUE550

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5055 Opera

Course Info

Course Title

Opera

Course Description

Production and performance of a full-scale opera. Cast by audition. May be repeated for credit.

Equivalent Courses

MUE555

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

0

Credit Hours

Max:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

MUE 5065 Contemporary Music Ensemble

Course Info

Course Title

Contemporary Music Ensemble

Course Description

Study and performance of modern art music, focusing on newly composed music, non-traditional performance styles, and non-jazz improvisation. May be repeated for additional credit. Approved Slash Course. Credit can only be earned for MUE 4065 or MUE 5065

Equivalent Courses

MUE565

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

0

Credit Hours

Max:

1

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
9

Maximum Hours
99

MUE 5071 Saxophone Chamber Music

Course Info

Course Title

Saxophone Chamber Music

Course Description

Performance, practice and techniques of saxophone literature involving two or more players. Students must be concurrently registered for applied lessons in saxophone to enroll in saxophone ensemble. May be repeated for credit.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5072 Woodwind Chamber Music

Course Info

Course Title

Woodwind Chamber Music

Course Description

Experience in musical decision-making and effective rehearsal techniques while working in small ensembles. Students must be concurrently registered for applied woodwind lessons to enroll in woodwind chamber music. May be repeated for credit.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5073 Percussion Ensemble

Course Info

Course Title
Percussion Ensemble

Course Description
Performance of music for various combinations of percussion instruments. Students must be concurrently registered for applied lessons in percussion to enroll in percussion ensemble. May be repeated for credit.

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5074 Brass Chamber Music

Course Info

Course Title
Brass Chamber Music

Course Description
Experience in musical decision-making and effective rehearsal techniques while working in small ensembles. Students must be concurrently registered for applied lessons in a brass instrument to enroll in brass chamber music. May be repeated for credit.

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5075 Piano Ensemble

Course Info

Course Title

Piano Ensemble

Course Description

Class instruction in performance and repertory of multiple keyboard literature. Students must be concurrently registered for applied lessons in piano to enroll in piano ensemble. May be repeated for credit.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5076 String Chamber Music

Course Info

Course Title

String Chamber Music

Course Description

Experience in musical decision-making and effective rehearsal techniques while working in small ensembles. Students must be concurrently registered for applied lessons on a string instrument to enroll in string chamber music. May be repeated for credit.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUE 5080 Chamber Music

Course Info

Course Title
Chamber Music

Course Description
Performing ensemble of various instrumentations. A spectrum of appropriate music literature, medieval through contemporary. May be repeated for credit.

Equivalent Courses
MUE580

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
0	1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUS 5027 American Music

Course Info

Course Title
American Music

Course Description
Topics in American Music from about 1900 to the present. Case studies are examined in depth, with emphasis on cultural and historical significance, and the relevance of each case to music in our time. Formerly MUS 527.

Equivalent Courses
MUS527

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code
NR

MUS 5111 Diction for Singers I

Course Info

Course Title

Diction for Singers I

Course Description

Techniques for pronouncing foreign languages in singing. Focus on International Phonetic Alphabet (IPA), English, Italian, and Latin. Formerly MUS 511.

Equivalent Courses

MUS511

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5112 Diction for Singers II

Course Info

Course Title

Diction for Singers II

Course Description

Techniques for pronouncing foreign languages in singing. Focus on International Phonetic Alphabet (IPA), French, and German. Student must meet the prerequisite (MUS 5111). Formerly MUS 512.

Equivalent Courses

MUS512

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5234 Analysis of Music for Teaching

Course Info

Course Title
Analysis of Music for Teaching

Course Description
A perusal of analytical techniques that can be applied to music in support of teaching. Formerly MUT 534.

Equivalent Courses
MUT534

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

MUS 5235 Analytical Tech in Tonal Music

Course Info

Course Title
Analytical Techniques in Tonal Music

Course Description
In-depth analysis of common-practice repertoire through multiple techniques, including the study of both pitch and rhythm. May be repeated for additional credit.

Equivalent Courses
MUT535

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	4

MUS 5236 Analysis of Post -1900 Music

Course Info

Course Title
Analysis of Post - 1900 Music

Course Description
Analytical techniques for music of the twentieth and twenty-first centuries. Formerly MUT 536.

Equivalent Courses
MUT536

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	4

MUS 5300 Intro to Grad Study in Music

Course Info

Course Title
Introduction to Graduate Study in Music

Course Description
Provides a foundation in library and Internet usage and a review of resources and approaches to enable students to prepare for graduate courses in music theory and history. Offered every other spring and fall. Formerly MUS 500.

Equivalent Courses
MUS500, MUS510

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

MUS 5321 Sem Medieval/Renaissance Music

Course Info

Course Title

Seminar in Medieval and Renaissance Music

Course Description

Study of topics in Medieval and Renaissance music with emphasis on current musicological research. Can be repeated for credit. Formerly MUS 521.Prerequisite: MUS 5300 or permission of instructor.

Equivalent Courses

MUS521

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

RP

Repeat Limit

9

Maximum Hours

99

MUS 5322 Sem Baroque/Classical Music

Course Info

Course Title

Seminar in Baroque and Classical Music

Course Description

Study of topics in Baroque and Classical music with emphasis on current musicological research. Can be repeated for credit. Formerly MUS 522.Prerequisite: MUS 5300 or permission of instructor.

Equivalent Courses

MUS522, MUS526

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

RP

Repeat Limit

99

Maximum Hours

99

MUS 5323 Seminar/Music 1800 to Present

Course Info

Course Title
Seminar in Music from 1800 to Present

Course Description
Study in topics in music for 1800 to the present with emphasis on current musicological research. Can be repeated for credit. Formerly MUS 523. Prerequisite: MUS 5300 or permission of instructor.

Equivalent Courses
MUS523

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUS 5323P Seminar/Music 1800 to Present

Course Info

Course Title
Seminar/Music 1800 to Present

Equivalent Courses
MUS523

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

MUS 5325 Global Music Seminar

Course Info

Course Title
Global Music Seminar

Course Description
Study in topics in global music with emphasis on current musicology and music cognition research.

College/School
College of Arts and Sciences

Department
Music

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUS 5328 Late Baroque Music

Course Info

Course Title

Late Baroque Music

Course Description

Topics in late Baroque music, focusing especially on J.S. Bach, Handel, and Vivaldi. Case studies are examined in depth, with emphasis on cultural and historical significance. Prerequisite (s): Admission to MM

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5431 Hist & Phil of Music Education

Course Info

Course Title

Historical and Philosophical Foundations of Music Education

Course Description

Philosophical bases of learning and musical learning, their roots, historical contexts, assumptions and implications for education and music education practice. Formerly MUS 531.

Equivalent Courses

MUS531, MUS531P

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 5432 Psych Foundations of Music

Course Info

Course Title

Psychological Foundations of Music Education

Course Description

Theories of learning and musical learning, their roots, assumptions and implications for music education practice. Some assignments connected to work in the field. Formerly MUS 532.

Equivalent Courses

MUS532

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 5433 Learning Theory/Studio Tchr

Course Info

Course Title

Learning Theory for Studio Teachers

Course Description

Theories of learning and musical learning, their roots, assumptions and implications for music education practice. Same as MUS 5432 without the field component. Formerly MUS 533.

Equivalent Courses

MUS533

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5434 K-12 Mus/Lrn Exceptionalities

Course Info

Course Title

K-12 Music for Learners with Exceptionalities

Course Description

Designed to help students develop understanding of the needs of learners with exceptionalities and how they might better accommodate them in the classroom through curriculum design, teaching methods, and by providing an appropriate learning environment. Formerly MUS 534. Prerequisites: MUS 5432 or 5433 or 7731.

Equivalent Courses

MUS534

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5435 Global Arts Study Abroad

Course Info

Course Title

Global Arts Study Abroad

Course Description

Faculty-led study abroad of global arts traditions and their relation to local history and culture. Includes foundational work prior to travel as well as summative reflective work. Prerequisite (s): Instructor approval.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

MUS 5438 Issues-Music Ed-21st Century

Course Info

Course Title

Issues in Music Education in the 21st Century

Course Description

Examination of current issues and trends in music education. Formerly MUS 538.

Equivalent Courses

MUS538

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5439 Teach Learn Music 21st Cent

Course Info

Course Title

Teaching and Learning Music in the 21st Century

Course Description

Theories of learning and musical learning, their roots, assumptions, and implications for music education practice. Formerly MUS 539.

Equivalent Courses

MUS539

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5476 Lit for MS and HS Band

Course Info

Course Title

Literature for the Middle School and High School Band

Course Description

A study of elementary and secondary level literature for the wind band with specific emphasis on the selection of curricular material that will enable and facilitate the teaching of musical concepts in a performance setting. Formerly MUS 576.

Equivalent Courses

MUS576

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5495 Innovations in Music Education

Course Info

Course Title

Innovations in Music Education

Course Description

Innovative ideas in music instruction. Materials, methods and curricula appropriate to changing philosophies of music education and current research on learning and teaching. May be repeated for credit. Formerly MUS 595.

Equivalent Courses

MUS595

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

99

MUS 5541 Piano Ped I:Beginner Method Bk

Course Info

Course Title

Piano Pedagogy I: Beginner Method Books

Course Description

Instructional strategies for teaching the beginning piano student, including methods, materials and the use of music technology. Various aspects of establishing and managing a piano studio will be addressed. Weekly observations required. Formerly MUS 541.

Equivalent Courses

MUS541, MUS541P

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5542 Piano Pedagogy II:Int. Rep.

Course Info

Course Title

Piano Pedagogy II: Intermediate Repertoire

Course Description

Instructional strategies for teaching the intermediate and advanced piano student, including methods, materials and the use of music technology. Includes weekly observations and supervised teaching. Formerly MUS 542. Prerequisites: MUS 5541.

Equivalent Courses

MUS542, MUS542P

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

MUS 5543 Piano Pedagogy III: Baroque Cl

Course Info

Course Title

Piano Pedagogy III: Baroque-Classical Advanced Repertoire

Course Description

Instructional strategies for teaching advanced baroque-classical repertoire, including score analysis, period performance practice, continued technical training and musicianship development. Students will engage in paired microteaching and receive feedback from peers and teachers. Prerequisite: MUS 5542

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5544 Piano Pedagogy IV: Romantic

Course Info

Course Title

Piano Pedagogy IV: Romantic and Contemporary Advanced Repertoire

Course Description

Instructional strategies for teaching advanced romantic-contemporary repertoire, including score analysis, period performance practice, continued technical training, and musicianship development. Students will engage in paired microteaching and receive feedback from peers and teacher. Prerequisite: 5543

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5551 Vocal Pedagogy I

Course Info

Course Title

Vocal Pedagogy I

Course Description

Study of vocal anatomy and voice function with a focus on teaching healthy singing through the process of diagnosis and correction of vocal technique.

Equivalent Courses

MUS550

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5552 Vocal Pedagogy II

Course Info

Course Title

Vocal Pedagogy II

Course Description

Continuation of Vocal Pedagogy I, wherein the science and art of teaching voice is given practical application. Students research and present on a variety of topics concerning vocal health and vocal pedagogy and work with singers in a studio setting to gain practical experience in solving vocal problems. MUS 552 is cross listed with MUS 452. Students cannot receive credit for both courses. Prerequisites: MUS 5551 and MUA 3000.

Equivalent Courses

MUS552

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5555 Piano Repertoire I

Course Info

Course Title

Piano Repertoire I

Course Description

Survey of piano repertoire from the baroque to classic (ca. 1600-ca. 1820). Formerly MUS 555.

Equivalent Courses

MUS555

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5561 Vocal Repertoire I

Course Info

Course Title

Vocal Repertoire I

Course Description

A survey of literature for the voice with emphasis on historical style, covering the Middle Ages through the 19th century, with emphasis on German song. Formerly MUS 561.

Equivalent Courses

MUS561

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5556 Piano Repertoire II

Course Info

Course Title

Piano Repertoire II

Course Description

Survey of piano repertoire from the classic to the present (ca. 1820 to the present). Formerly MUS 557.

Equivalent Courses

MUS557

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5562 Vocal Repertoire II

Course Info

Course Title

Vocal Repertoire II

Course Description

A survey of literature for the voice with emphasis on historical style, covering the 19th and 20th centuries, emphasizing French, British and American song. Formerly MUS 562.

Equivalent Courses

MUA562, MUS562

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5565 Survey/Study of Choral Lit

Course Info

Course Title

Survey and Study of Choral Literature

Course Description

Study of choral literature from the Renaissance to the present. Examination of music from each period, with emphasis on literature selection, understanding and interpretation of the score, historical accuracy in performance, and program building, with overall eye toward practical usage. Formerly MUS 556.

Equivalent Courses

MUS556

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5581 Adv Choral Interp & Conducting

Course Info

Course Title

Advanced Choral Interpretation and Conducting Techniques

Course Description

Techniques and problems of interpreting and conducting choral literature through style analysis, performance practices, choral tradition and vocal production. Formerly MUS 580.

Equivalent Courses

MUS580

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5581P Adv Choral Interp & Conducting

Course Info

Course Title

Adv Choral Interp & Conducting

Equivalent Courses

MUS580

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 5582 Adv Instr Interp & Conducting

Course Info

Course Title

Advanced Instrumental Interpretation and Conducting Techniques

Course Description

Techniques and problems of interpreting and conducting major orchestral works through style analysis, performance practices and various instrumentations, including works for a wide range of ensemble combinations. Formerly MUS 581.

Equivalent Courses

MUS581

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

MUS 5900 Special Topics in Music

Course Info

Course Title
Special Topics in Music

Course Description
Topics and issues in music performance, literature, and research.
Formerly MUS 590.

Equivalent Courses
MUS590

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUS 5996 Independent Study

Course Info

Course Title
Independent Study

Course Description
A program of independent study under the guidance of a faculty
adviser. The study plan is subject to final approval by the
departmental graduate committee. May be repeated for credit.
Formerly MUS 599.

Equivalent Courses
MUS599

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

MUS 6401 General Music Ed Workshop

Course Info

Course Title

General Music Education Workshop

Course Description

Workshop in current and/or important issues in general music education, designed to provide professional development and support for school music teachers. Formerly MUS 601.

Equivalent Courses

MUS601

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6402 Choral Music Ed Workshop

Course Info

Course Title

Choral Music Education Workshop

Course Description

Workshop in current and/or important issues in choral music education, designed to provide professional development and support for school music teachers. Formerly MUS 602.

Equivalent Courses

MUS602

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6403 Instr Music Ed Workshop

Course Info

Course Title

Instrumental Music Education Workshop

Course Description

Workshop in current and/or important issues in instrumental music education, designed to provide professional development and support for school music teachers.

Equivalent Courses

MUS603

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6404 World Percussion Pedagogy

Course Info

Course Title

World Percussion Pedagogy

Course Description

Current and important issues in world percussion pedagogy, designed to provide professional development and support for percussion teachers incorporating world percussion into the percussion studio and/or classroom. Formerly MUS 604.

Equivalent Courses

MUS604

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code
NR

MUS 6405 Creative Proc in Mus Ed W/ shop

Course Info

Course Title
Creative Process in Music Education Workshop

Course Description
Workshop in current and/or important issues in teaching music through creative process, designed to provide professional development and support for school music teachers. Formerly MUS 605.

Equivalent Courses
MUS605

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6406 Perform Proc Mus Ed W/ shop

Course Info

Course Title
Performance Process in Music Education Workshop

Course Description
Workshop in current and/or important issues in teaching music through performance process, designed to provide professional development and support for school music teachers.

Equivalent Courses
MUS606

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6407 Listening Proc Mus Ed W/shop

Course Info

Course Title

Listening Process in Music Education Workshop

Course Description

Workshop in current and/or important issues in teaching music through listening process, designed to provide professional development and support for school music teachers. Formerly MUS 607.

Equivalent Courses

MUS607

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
7

Maximum Hours
16

MUS 6408 Issues in Music Ed W/shop

Course Info

Course Title

Issues in Music Education Workshop

Course Description

Workshop in current and/or important issues in music education, designed to provide professional development and support for school music teachers. Formerly MUS 608.

Equivalent Courses

MUS608

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
7

Maximum Hours
16

MUS 6409 Tech in Music Ed Workshop

Course Info

Course Title

Technology in Music Education Workshop

Course Description

Workshop in current and/or important issues in technology in music education, designed to provide professional development and support for school music teachers. Formerly MUS 609.

Equivalent Courses

MUS609

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6410 Tech Prob in Mus Ed Wk/
shop

Course Info

Course Title

Technical Problems in Music Education Workshop

Course Description

Workshop in current and/or important technical problems in music education, designed to provide professional development and support for school music teachers.

Equivalent Courses

MUS610

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	7	16

MUS 6430 Intro to Mus Tech for Educator

Course Info

Course Title

Introduction to Music Technology for Educators

Course Description

Basics of technology-based music making including software and hardware tools for notation, recording, sequencing, and sharing music. Formerly MUS 630.

Equivalent Courses

MUS630

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6434 Classroom Mgt/K-12 Music Ed

Course Info

Course Title

Classroom Management for K-12 Music Educators

Course Description

Survey of current classroom management programs with connections to behaviorist theories of learning. Formerly MUS 634. Prerequisite: Graduate status. Recommended prerequisite: MUS 5432.

Equivalent Courses

MUS634

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6435 Music Education Advocacy

Course Info

Course Title

Music Education Advocacy

Course Description

Examine music advocacy literature and clarify information used to communicate with administrators, parents, and school boards about the importance of music education. Develop an advocacy plan for your program. Formerly MUS 635.

Equivalent Courses

MUS635

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6441 Teachg/Understg/Elem/Gen/ Music

Course Info

Course Title

Teaching for Musical Understanding in Elementary General Music

Course Description

Principles and practices of teaching music and their relationships to current theories of learning. Emphasis on the development of understanding in an elementary general music setting through an interactive, constructivist approach.

Equivalent Courses

MUS502, MUS641

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6442 Teachg/Understdg/Sec/Gen/ Music

Course Info

Course Title

Teaching for Musical Understanding in Secondary General Music

Course Description

Principles and practices of teaching music and their relationships to current theories of learning. Emphasis on the development of understanding in a secondary general music setting through an interactive, constructivist approach. Formerly MUS 642.

Equivalent Courses

MUS642

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6443 Techg/Mus/Understg/Choral

Course Info

Course Title

Teaching for Musical Understanding in Choral Music

Course Description

Principles and practices of teaching music and their relationships to current theories of learning. Emphasis on the development of understanding in a choral music setting through an interactive, constructivist approach. Formerly MUS 643.

Equivalent Courses

MUS643

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6444 TMU in Instrumental Ensembles

Course Info

Course Title

Teaching for Musical Understanding in Instrumental Ensembles

Course Description

Principles and practices of teaching music and their relationships to current theories of learning. Emphasis on the development of understanding in an instrumental ensemble setting through an interactive, constructivist approach. Formerly MUS 644.

Equivalent Courses

MUS644

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6445 Music Curric Design/ Assessment

Course Info

Course Title

Music Curriculum Design and Assessment

Course Description

Process of curriculum construction for a K-12 music program, including determining underlying philosophy, overriding goals, specifics and means of assessing whether or not objectives have been met. Formerly MUS 645.

Equivalent Courses

MUS645

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6446 Assessment in Performance

Course Info

Course Title

Assessment of Music Learning in a Performance Setting

Course Description

Examination of meaningful, authentic assessment in performance-based music classes. Development of assessment tools for ensembles and individual performers. Emphasis on assessment that supports teaching for musical understanding. Formerly MUS 646.

Equivalent Courses

MUS646

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6447 TMU with Technology

Course Info

Course Title

Teaching for Musical Understanding with Technology

Course Description

Principles and practices of teaching music with technology and their relationships to current theories of learning. Emphasis on the development of musical understanding in various musical settings through an interactive constructivist approach. Students must meet prerequisite (MUS 6430) or have equivalent knowledge of music technology. Formerly MUS 647.

Equivalent Courses

MUS647

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6448 Choral Methods for Instrumenta

Course Info

Course Title

Choral Methods for Instrumental Teachers

Course Description

Development of musical understanding in a choral music setting through an interactive, student-centered approach. Designed for teachers whose area of specialization is not choral music. Formerly MUS 648.

Equivalent Courses

MUS648

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6449 TMU in Beginning Instr Music

Course Info

Course Title

Teaching for Musical Understanding in Beginning Instrumental Music

Course Description

Principles and practices of teaching music and their relationships to current theories of learning. Emphasis on the development of musical understanding in a beginning instrumental music setting through an interactive, constructivist approach. Formerly MUS 649.

Equivalent Courses

MUS649

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6450 Research Methods/Music Ed

Course Info

Course Title

Research Methods in Music Education

Course Description

Research methodologies for music education with a focus on qualitative inquiry and the arts. Develops skills necessary for engaging in a master's project. Formerly MUS 689.

Equivalent Courses

MUS511, MUS5111, MUS689

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6940 Graduate Seminar

Course Info

Course Title

Graduate Seminar

Course Description

Special seminars in music performance, literature and education. An in-depth study of current topics and issues. Formerly MUS 600.

Equivalent Courses

MUS600

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6960 Online Site-based Practicum

Course Info

Course Title

Online Site-based Practicum

Course Description

Examination of music classroom practice under guidance of university instructor. Formerly MUS 691.

Equivalent Courses

MUS691

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

MUS 6969 Practicum Analysis/ Reflection

Course Info

Course Title

Practicum Analysis and Reflection

Course Description

Development of portfolio to analyze and reflect on classroom practice in music. Formerly MUS 696.Prerequisite (s): MUS 6960

Equivalent Courses

MUS696

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

MUS 6993 Apprentice College Teaching

Course Info

Course Title

Apprentice College Teaching

Course Description

Supervised teaching in college courses together with participation in developing and exploring objectives and materials. Formerly MUS 686.

Equivalent Courses

MUS686

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

MUS 6995 Directed Research in Music Ed

Course Info

Course Title
Directed Research in Music Education

Course Description
Independent or group research in music education methods, measurement and curriculum. Student must have the approval of an adviser and the departmental graduate committee.

Equivalent Courses
MUS680

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

MUS 6996 Master's Project

Course Info

Course Title
Master's Project

Course Description
Culminating project intended to develop knowledge and experience in an area of vocal or instrumental pedagogy that is of particular interest to the student. May take many forms, including a traditional research paper, a lecture/recital, or other creative possibilities. Projects must be approved by candidate's adviser and a departmental committee. Formerly MUS 695

Equivalent Courses
MUS695

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUS 6998 Master's Thesis

Course Info

Course Title

Master's Thesis

Course Description

A thesis based on research. Projects must be approved by the candidate's adviser and a departmental committee. Formerly MUS 699

Equivalent Courses

MUS699

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

MUS 7731 Philosophical Foundations

Course Info

Course Title

Philosophical Foundations of Music Education

Course Description

Philosophical basis of learning and musical learning approaches, their roots, historical contexts, assumptions and implications for education and music education practice. Formerly MUS 7431 (2 cr).

Equivalent Courses

MUS7431

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:
4

MUS 7732 Psychological Foundations

Course Info

Course Title

Psychological Foundations of Music Education

Course Description

Theories of learning and music learning, their roots, assumptions, and implications for music education practice. Formerly MUS 7432 (2cr).

Equivalent Courses

MUS7432

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 7740 Research Methods

Course Info

Course Title

Research Methods in Music Education

Course Description

Research methodologies for music educators, with a focus on qualitative inquiry and the arts. Develops skills necessary for engaging in a research project. Formerly MUS 7440 (2 cr).

Equivalent Courses

MUS7440

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 7940 Doctoral Seminar/Music Ed

Course Info

Course Title

Doctoral Seminar: Music Education

Course Description

Forum for advanced-level discussion of issues in education, arts education, and music education from a variety of perspectives and their implications for music teaching and learning. Students must enroll a minimum of 4 times for 1 credit each, during their first two years in the program. Student must be admitted to doctoral program. Formerly MUS 730.

Equivalent Courses

MUS730

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

3

Maximum Hours

99

MUS 7996 Independent Study

Course Info

Course Title

Independent Study

Course Description

A program of independent study under the guidance of a faculty adviser. The study plan is subject to approval by the departmental graduate committee. Student must be admitted to doctoral program. Formerly MUS 799.

Equivalent Courses

MUS799

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

16

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

9

Maximum Hours

99

MUS 8900 SpecTopics/Music & Music Ed

Course Info

Course Title
Special Topics in Music and Music Education

Course Description
Current topics and issues in music education, research, performance and literature. Student must be admitted to doctoral program. Formerly MUS 790.

Equivalent Courses
MUS790

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

MUS 8911 Rdgs. in Music Ed. Spec.

Course Info

Course Title
Readings in Music Education Specialization

Course Description
Independent Reading of literature in the students' area of interest and specialization in the field of music education. Prerequisites (s): Admission to PhD in Music Education program.

College/School
College of Arts and Sciences

Department
Music

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code
NR

MUS 8912 Rdgs. in Music Ed.
Methodology

Course Info

Course Title

Readings in Music Education Methodology

Course Description

Independent reading of literature in music education and education research methodology. Prerequisite (s): Admission to PhD in Music Ed program.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

MUS 8913 Rdgs. in Music Ed. Psych.

Course Info

Course Title

Readings in Music Education Psychology

Course Description

Independent reading of literature in the student's area of interest and specialization in the field of music education. Prerequisite (s): Admission to PhD in Music Ed. program.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

MUS 8914 Rdgs. in Music Ed. Phil.

Course Info

Course Title

Readings in Music Education Philosophy

Course Description

tIndependent reading of literature in music education and education philosophy.Prerequisite (s): Admission to PhD in Music Ed. program.

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

MUS 8920 Readings in Music Education

Course Info

Course Title

Readings in Music Education

Course Description

Independent reading of literature relevant to the field of music education. Formerly MUS 805.

Equivalent Courses

MUS805

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code
RP

Maximum Hours
8

MUS 8960 Research Mentorship I

Course Info

Course Title

Research Mentorship I

Course Description

Research mentorship experience under the guidance of a professional in the field. Over the course of the two semesters, students will design a study, collect and analyze data, and learn to write a publishable research paper. Formerly MUS 851. Prerequisite: MUS 7740. Admission to doctoral program.

Equivalent Courses

MUS851

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

MUS 8961 Research Mentorship II

Course Info

Course Title

Research Mentorship II

Course Description

Research mentorship experience under the guidance of a professional in the field. Over the course of the two semesters, students will design a study, collect and analyze data, and learn to write a publishable research paper. Formerly MUS 852. Prerequisite: MUS 8960. Admission to doctoral program.

Equivalent Courses

MUS852

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 9900 Dissertation Proposal

Course Info

Course Title

Dissertation Proposal Development Seminar

Course Description

Drawing on readings, field-based projects, coursework, seminars, and practical experience, students prepare a dissertation proposal. Student must have passed comprehensive examination. Formerly MUS 995.

Equivalent Courses

MUS995

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

4

MUS 9999 Dissertation Research

Course Info

Course Title

Dissertation Research

Course Description

Students independently pursue their own dissertation research projects and writing. Student must have passed comprehensive examination. Formerly MUS 999.

Equivalent Courses

MUS999

College/School

College of Arts and Sciences

Department

Music

Credits

Credit Hours

Units:

1

Credit Hours

Max:

12

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
15

Maximum Hours
99

NRS 5241 Sys Lead Hth Pol Adv Nrs
Prac

Course Info

Course Title
Health Policy and Finance

Course Description
This course will examine the impact of policy on healthcare and advanced nursing practice at the system, local, state, federal, and international levels. Students will be further introduced to healthcare economic principles with a focus on finance, payment methods, and systems of reimbursement.

Equivalent Courses
NRS610

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

NRS 5251 Interprof Role Dev/Ethic-ANP

Course Info

Course Title
Interprofessional Role Development, Leadership, and Ethics in Advanced Registered Nurse Practice

Course Description
Theoretical foundation in role theory, role development, and ethics related to the advanced practice role of the nurse. Advanced practice nursing roles and competencies, including requirements for and regulation of these roles, will be analyzed with evolving trends affecting health care delivery.

Equivalent Courses
NRS643

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

NRS 5302 Statistics in Adv NRS Practice

Course Info

Course Title
Statistics in Advanced Nursing Practice

Course Description
Statistics in Advanced Nursing Practice assists students to develop a conceptual understanding of statistical analysis to appropriately evaluate its use in scholarly literature. This course also assists students in the analysis of research data collected to support examination of their own advanced nursing practice. Formerly NRS 595. NRS 5302 is a prerequisite/corequisite to NRS 8671, if the student has not completed an equivalent graduate-level statistics course.

Equivalent Courses
NRS595

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:
3

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

NRS 5312 Theory/Trans Res Adv Nrs Prac

Course Info

Course Title
Theory and Translational Research for Advanced Nursing

Course Description
This course will link critical components of theory and research as they apply to advanced nursing practice. Relevant theories and concepts from basic, applied, social, and interdisciplinary sciences will be examined as well as research processes within quantitative and qualitative methodologies. Processes to translate theory and research into nursing practice will be examined.

Equivalent Courses
NRS505

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:
4

Repeat Rules		
Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

NRS 5322 Nrs Schship and Dissemination

Course Info

Course Title
Nursing Scholarship and Dissemination

Course Description
This course focuses on the knowledge and skills necessary for scholarly communication within advanced nursing practice.

Equivalent Courses
NRS510

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:
1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

NRS 5991 Topical Seminar in Nursing

Course Info

Course Title
Topical Seminar in Nursing

Course Description
Discussion of a selected topic relevant to the practice of a master's prepared nurse. Student must be admitted to MSN program or have permission of instructor. Formerly NRS 599.

Equivalent Courses
NRS599

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	99

NRS 6232 Pop Focused Nsg Care

Course Info

Course Title

Population Focused Nursing Care

Course Description

This course will prepare the advanced practice nurse on the concepts, skills and tools related to understanding and improving the healthcare outcomes data from the micro, macro and/or population focus.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

NRS 6398 Graduate Project

Course Info

Course Title

Graduate Project

Course Description

Students will apply knowledge of evidence-based practice and dissemination of findings to develop a project that addresses a clinical phenomenon important to advanced nursing practice.

Equivalent Courses

NRS698

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

NRS 6411 Adv Patho Across Lifespan

Course Info

Course Title

Advanced Pathophysiology Across the Lifespan

Course Description

This course builds upon previous knowledge of normal physiology and pathophysiology. Students examines the interrelation of human physiology and pathophysiology in response to health, illness, and disease across the lifespan. In addition, the interaction of physiologic response with psychosocial, situational, and cultural stressors is analyzed.

Equivalent Courses

NRS611

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

NRS 6421 Adv Hlth Assess Across Lifespa

Course Info

Course Title

Advanced Health Assessment Across the Lifespan

Course Description

The course builds upon previous knowledge of health assessment. The focus is on comprehensive health assessment and clinical decision-making in advanced nursing practice across the lifespan. Clinical decision-making skill development focuses on appropriate interpretation of multidimensional assessment data and diagnostic reasoning. Prerequisite (s): NRS 6411, NRS 6441

Equivalent Courses

NRS613

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

0

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

NRS 6441 ADV Pharm Across Lifespan

Course Info

Course Title

Advanced Pharmacology Across the Lifespan

Course Description

This course builds on previous knowledge of pharamacotherapeutics and pharmacokinetics of broad categories of pharmacologic agents. The course places emphasis on skills to assess, diagnose, and manage (including the prescription of pharmacologic agents) a patient's common health problems in a safe, high quality, cost-effective manner across the lifespan. Prerequisite (s): NRS 6411

Equivalent Courses

NRS648

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Limit

1

NRS 6617 Adv Concept Ped Dev/
Disease

Course Info

Course Title

Advanced Concepts of Pediatric Development and Disease

Course Description

Physiologic and pathophysiologic development of the pediatric client. Examination of the response of pediatric clients in selected illness and disease states. Analysis of the interaction of pediatric physiological responses with selected psychosocial, developmental and cultural stressors. Former NRS 604. Prerequisite(s): NRS 6411

Equivalent Courses

NRS604

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

NRS 6627 Adv Concepts in Gerontology

Course Info

Course Title

Advanced Concepts in Gerontology

Course Description

This introductory course focuses on gerontological advanced nursing practice. Students will explore key topics, including global population aging, theories of aging, and the biological, psychological, and social factors that impact older adults. Learning activities guide advanced practice nurses to identify and care for diverse populations, including vulnerable older adults.

Equivalent Courses

NRS606

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

6

NRS 6633 Health Promo Across Lifespan

Course Info

Course Title

Health Promotion Across the Lifespan

Course Description

Integrates concepts of health promotion, maintenance, and wellness teaching in advanced nursing practice across the lifespan. Formerly NRS 631

Equivalent Courses

NRS631

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

NRS 6635 Intro Clinical Nurse Lead Role

Course Info

Course Title

Introduction to the Clinical Nurse Leader Role

Course Description

This introductory seminar introduces the complexities of the Clinical Nurse Leader role in practice. Seminar format will be highly interactive and introduce students to practicing Clinical Nurse Leaders.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	2

NRS 6637 Adv Nrs Care Episodic Hlth Con

Course Info

Course Title

Advanced Nursing Care of Episodic Health Conditions

Course Description

This course prepares students for specialty nurse practitioner roles and advanced nurse certification in the advanced nursing care of episodic health conditions. Formerly NRS 691

Equivalent Courses

NRS691

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	6

NRS 6642 Biophysics and Chem for NA

Course Info

Course Title

Biophysics and Chemistry for Nurse Anesthesia

Course Description

This course is designed to help graduate nurse anesthesia students apply the principles of chemistry and physics to the practice of nurse anesthesia. Students will integrate and utilize these concepts to deepen their understanding of physiology, pharmacology, anesthesia equipment, monitoring techniques, and the overall delivery of anesthesia care.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

NRS 6645 Sys Leader/Org Change/
Outcome

Course Info

Course Title

Systems Leadership, Leading Organizational Change and Outcomes Management

Course Description

This course builds on NRS 5241 with continuing to develop the system leadership and change agent skills. Improvement science and systems theory are the foundation to prepare the CNL RN to manage system change at all levels of healthcare. Ethical leadership principles and role development underpin course content. Emphasis focuses using data and information systems. Activities within this course are linked to 50 leadership practice hours towards completion of the CNL program. Prerequisite: NRS 5241

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

NRS 6646 Org Theory/Quality Mgmt

Course Info

Course Title

Organizational Theory and Quality Management

Course Description

This course will prepare the CNL student on how the healthcare system culture influences change management and directly affects quality outcomes. Students will learn the principles of improvement science and outcome strategies. Students will learn how to use change management principles to improve nursing care at the micro, macro and population level.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

NRS 6647 Adv Nrs Care Chronic Hlth Cond

Course Info

Course Title

Advanced Nursing Care of Chronic Health Conditions

Course Description

This course prepares students for specialty nurse roles and advanced nurse certification in advanced nursing care of chronic health conditions. Formerly NRS 692

Equivalent Courses

NRS692

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	6

NRS 6652 Nurse Anesthesia Practice I

Course Info

Course Title

Nurse Anesthesia Practice I

Course Description

This is the first in a series of three courses. Each course focuses on the principles and practice of nurse anesthesia including the perioperative care for patients undergoing local, regional, or general anesthesia. The series progresses from introductory content to complex case management. CoReq 7715

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 6657 Adv Nrs Care Ped Patients

Course Info

Course Title

Advanced Nursing Care of Pediatric Patients

Course Description

Students integrate concepts of advanced nursing practice, through the synthesis of theoretical, scientific and contemporary clinical knowledge for the assessment and management of individuals and families experiencing common acute and chronic health problems. Primary care management includes health promotion, health protection, disease prevention, and treatment of illness. Formerly NRS 646

Equivalent Courses

NRS694

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

5

Credit Hours

Max:

6

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 6662 Nurse Anesthesia Practice II

Course Info

Course Title

Nurse Anesthesia Practice II

Course Description

This is the second of a series of three courses. Each course will focus on the principles and practice of nurse anesthesia including the perioperative care for patients undergoing local, regional, or general anesthesia. Anesthetic management of patients with co-existing diseases will be studied.CoReq: Nrs 7725 PreReq: Nrs 6652

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 6667 Adv Nrs Care Aging Adult

Course Info

Course Title

Advanced Nursing Care of the Aging Adult

Course Description

This course focuses on the concept of health and illness in the aging adult. Quality of life, end-of-life decision making and palliative care issues are included. Needs of caregivers, aging adults and the resources available for meeting these needs are addressed. Focus is on advanced, comprehensive assessment, theoreticfal and research-based advanced nursing interventions to promote, maintain and restore health for the aging adult. Formerly NRS 693

Equivalent Courses

NRS693

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

5

Credit Hours

Max:

6

Repeat Rules

Repeat Limit

1

NRS 6672 Nurse Anesthesia Practice III

Course Info

Course Title

Nurse Anesthesia Practice III

Course Description

This is the third course in a three-part series, each centered on the principles and practice of nurse anesthesia, including perioperative care for a wide range of patients undergoing sedation, regional, or general anesthesia. Building on the knowledge gained in NRS 6652 and NRS 6662, this course will focus on the anesthetic management of specific patient populations and complex surgical procedures. Topics will include the unique considerations for pediatrics, obstetrics, vascular, thoracic, and cardiac surgeries, emphasizing tailored anesthetic strategies for these diverse clinical scenarios.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 6682 Reg Anesthesia and Pain Mgmt

Course Info

Course Title

Regional Anesthesia and Pain Management

Course Description

This course addresses advanced concepts of nurse anesthesia practice in regional anesthesia, pain management, and ultrasound guided regional techniques. Emphasis will be on the integration and application of regional anesthesia principles to achieve effective regional anesthesia as well as acute and chronic pain management. Simulation and in-class demonstration will be used.PreReq NRS 7722 and BIO 5602

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 6712 Curriculum/Instruction Nrs Ed

Course Info

Course Title

Curriculum and Instruction in Nursing Education

Course Description

This course focuses on the role of the nurse educator. Students will explore key topics, including learning theories, competency-based education, and curricular development. Societal trends and issues impacting nursing education are explored.

Equivalent Courses

NRS632

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
3

NRS 6722 Evaluation in NRS Education

Course Info

Course Title

Evaluation in Nursing Education

Course Description

This course focuses on evaluation concepts for use in nursing education. Students will develop examination items, clinical evaluation tool(s), and an evaluation plan for a hypothetical nursing program. Formerly NRS 634. Prerequisite or Corequisite: NRS 6712.

Equivalent Courses

NRS634

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code
RP

Repeat Limit
1

Maximum Hours
3

NRS 6725 Death Investigation Clinical

Course Info

Course Title

Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death Clinical

Course Description

This clinical course focuses on the incorporation of forensic nursing principles into clinical practices surrounding quality, safety, risk, and death. Students explore a multitude of forensic nurse roles along the life-death continuum. Beginning with quality and/or safety management, transitioning to legal risk analysis, and finally within death investigation and organ/tissue donation systems. Formerly NRS 678. Prerequisites: NRS 6411, NRS 6441, and NRS 6421. Formerly NRS 678

Equivalent Courses

NRS678

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

1

NRS 6732 Role Trans Adult-Gero Acute Ca

Course Info

Course Title

Role Transition to the Adult-Gerontology Acute Care Nurse Practitioner

Course Description

This course focuses on the application of theoretical models of practice, evidence-based nursing practice and benchmarking to determine outcomes of care, interdisciplinary communication, and practice issues within the role of the adult-gerontology acute care nurse practitioner. Prerequisite(s): NRS 5312, NRS 5322

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

6

NRS 6734 NP Diag Test Proc Acute Care S

Course Info

Course Title

Nurse Practitioner Diagnostic Testing and Procedures in the Acute Care Setting

Course Description

This course will introduce and develop essential skills for assessment, monitoring, and management of acutely and critically ill adults.Prerequisite (s): NRS 6411, NRS 6441

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

NRS 6737 Adult/Gero NP Clin Con Acute C

Course Info

Course Title

Adult and Gerontology Nurse Practitioner Clinical concepts in Acute Care I

Course Description

This is the first of three didactic/clinical courses that will introduce the students to the management of acute, chronic, and multisystem health problems in the young adult through older adult populations within acute/critical care settings. Prerequisite (s): NRS 6421, NRS 6734.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:
6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	6

NRS 6741 Foundations/Forensic Nursing

Course Info

Course Title

Foundations of Forensic Nursing Science

Course Description

This course concentrates on the scientific underpinnings foundational to professional forensic nursing practice. The evolution of the role, education, and certification within forensic nursing will be examined. Trends and issues in forensic nursing practice and research, as well as legal, ethical, and psychological considerations impacting the specialty will be explored.

Equivalent Courses

NRS674

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

NRS 6745 Interper Violence/Maltreat Cli

Course Info

Course Title

Interpersonal Violence and Maltreatment Clinical

Course Description

This clinical course focuses on the incorporation of a standardized body of scientific forensic nursing knowledge during the provision of comprehensive care to patients who are victims of sexual violence, intimate partner violence, and child/elder maltreatment. Formerly NRS 683. Prerequisite (s): NRS 6741,NRS 6411, NRS 6441 and NRS 6421.

Equivalent Courses

NRS683

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

NRS 6747 Adult/Gero NP Clin Con
Acute C

Course Info

Course Title

Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care II

Course Description

This is the second of three didactic/clinical courses that will introduce the students to the management of acute, chronic, and multisystem health problems in the young adult through older adult populations within acute/critical care settings. Prerequisite(s): NRS 6421, NRS 6441, NRS6411, NRS 6737.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status Code

NR

NRS 6755 Interper Violence/Maltreat

Course Info

Course Title

Interpersonal Violence and Maltreatment

Course Description

This course provides the foundtion necessary for incporating a standardized body of scientific forensic nursing knowledge during the provision of comprehensive care to patients who have experienced sexual violence, intimate partner violence, or child/elder maltreatment. Prerequisite (s): NRS 6741, NRS 6411, NRS 6441 and NRS 6421 . Corequisite: NRS 6745.

Equivalent Courses

NRS682

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

NRS 6761 Emergency Prep/Disaster Mgmt

Course Info

Course Title

Emergency Preparedness and Disaster Management

Course Description

This course provides the foundation for incorporating a standardized body of scientific forensic nursing knowledge in primary prevention, emergency preparedness and disaster management. Content explores the forensic nurse's role while engaging in best-practices to improve health outcomes of individuals, populations, organizations, and the community. Former NRS 679 Prerequisite (s): NRS 6741, NRS 6411, NRS 6441 and NRS 6421 Corequisite NRS 6765

Equivalent Courses

NRS679

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

NRS 6765 Emer Prep/Disaster Mgmt Clin

Course Info

Course Title

Emergency Preparedness and Disaster Management Clinical

Course Description

This clinical course immerses students in interprofessional experiences to develop forensic nursing expertise, focusing on prevention, emergency preparedness, and disaster management. It emphasizes ethical, patient-centered care, cultural competence, multidisciplinary collaboration, and technology to enhance outcomes while equipping students with skills for effective prevention and quality care in emergencies and disasters. Prerequisite (s): NRS 6411, 6421, 6441, 6741; Corequisite: NRS 6761.

Equivalent Courses

NRS681

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	1

NRS 6767 Adult/Gero NP Clin Con Acute C

Course Info

Course Title

Adult and Gerontology Nurse Practitioner Clinical Concepts in Acute Care III

Course Description

This didactic/clinical course focuses on the management of acute, chronic, and multisystem health for acute and critical care settings with a concentration on preparation and transition to independent clinical practice. Prerequisite(s): NRS 6421, NRS 6441, NRS6411, NRS 6737, NRS 6747.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

7

Repeat Rules

Repeat Status Code

NR

NRS 6771 Forensic Nurse Death Invest

Course Info

Course Title

Forensic Nursing Considerations Related to Quality, Safety, Risk, and Death

Course Description

This course explores the forensic nurse in situations related to quality, safety, risk, and death. Students examine indicators of quality/safety then mitigation and litigation proceedings when error, injury, or death occur. The course concludes with responsibilities within death investigation and management systems. Prerequisite(s): NRS 6411, NRS 6441 and NRS 6421 and NRS 6741. Corequisite: NRS 6725.

Equivalent Courses

NRS677

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

NRS 6785 Adv Forensic Nursing Clinical

Course Info

Course Title

Advanced Forensic Nursing Clinical

Course Description

This final clinical course enables students to synthesize and integrate knowledge and skills obtained throughout the forensic nursing program as they are immersed in clinical experiences that prepare them for entry into advanced forensic nursing practice. The advanced forensic nurse, as a transformational leader, affects change within all levels and settings of healthcare through active engagement in professional practice, service, and scholarship. Prerequisite(s): NRS 6725, NRS 6761, NRS 6765, NRS 6741,NRS 6745, NRS 6411, NRS 6441, NRS 6421, NRS 6771, NRS 6755 and NRS 6941. Corequisite: NRS 6941

Equivalent Courses

NRS689

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

3

NRS 6932 Field Experience in NRS Edu

Course Info

Course Title

Field Experience in Nursing Education

Course Description

Students will be assigned to faculty who will be responsible for providing the student with opportunities to implement concepts and skills learned in NRS 6712 and NRS 6722. Field experiences will be in either academic or service settings. Formerly NRS 636. Prerequisite or Corequisite: NRS 6722.

Equivalent Courses

NRS636

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

4

NRS 6941 Adv Forensic Nursing Seminar

Course Info

Course Title

Advanced Forensic Nursing Seminar

Course Description

This seminar will serve as the final course in the forensic nursing sequence and prepares students for entry into forensic nursing practice. Students will be expected to synthesize forensic nursing knowledge and clearly articulate key concepts and principles foundational to professional forensic nursing practice.

Prerequisite(s): NRS 6725, NRS 6761, NRS 6765, NRS 6741, NRS 6745, NRS 6411, NRS 6441, NRS 6421, NRS 6771 and NRS 6755.

Corequisite: NRS 6785.

Equivalent Courses

NRS688

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

NRS 6987 CNL Role Seminar

Course Info

Course Title

CNL Role Seminar

Course Description

This course focuses on the successful implementation of the CNL role through knowledge, evidence-base practice and application of leadership principles. This seminar format will be highly interactive for student to discuss the major contemporary issues facing the nursing profession and the emerging role for the CNL. Pre-requisites: NRS 6646, NRS 6645 Co-requisite: NRS 6697

Equivalent Courses

NRS6697

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

NRS 6990 Independent Study in Nursing

Course Info

Course Title

Independent Study in Nursing

Course Description

Advanced independent study in a specialty area. Student must have prior approval of independent study option by instructor or associate dean. Formerly NRS 650.

Equivalent Courses

NRS650

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	6	12

NRS 6997 CNL Practicum

Course Info

Course Title

CNL Practicum

Course Description

This course will allow the student to implement a change project generated from evidence-based practice, literature review and analysis of benchmarked data. The AACN competencies and curricular expectations for CNL education and practice (2013) will provide the framework for this practicum. Includes a concentrated practice experience (400 hours). Pre-requisites: NRS 6646, NRS 6645

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:
5

Repeat Rules

Repeat Status Code
NR

NRS 6998 Graduate Research Project

Course Info

Course Description

Research project examining a nursing issue in a clinical setting. The outcome of the project is negotiable with the faculty research adviser. Student must meet the prerequisite (NRS 500, NRS 531) and have prior approval of instructor. APRN students must have completed a minimum of (1) advanced clinical course prior to enrolling in NRS 6998. Formerly NRS 687

Equivalent Courses

NRS687

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Limit

2

Maximum Hours

3

NRS 7398 Research Practicum I

Course Info

Course Title

Research Practicum I

Course Description

This experience is the equivalent of a graduate research project and provides the student an opportunity to develop foundational research skills under the guidance of a faculty mentor. These activities will focus on health care quality and/or health outcomes with a global perspective.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
2

NRS 7399 Research Practicum II

Course Info

Course Title

Research Practicum II

Course Description

This experience is the equivalent of a graduate research project and provides the student an opportunity to develop foundational research skills under the guidance of a faculty mentor. Theses activities will focus on health care quality and/or health outcomes with global perspective.Prerequisite(s): NRS 7398 or instructor permission

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

NRS 7611 Adv Hlth Assess for NA

Course Info

Course Title

Advanced Health Assessment for Nurse Anesthesiology

Course Description

This course will focus on building skills for a comprehensive organ system approach to history-taking, as well as techniques of examination specific to each organ system. Emphasis is placed on the APRN-patient relationship, clinical reasoning, identification of symptoms and abnormal findings, and cultural competence.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

NRS 7712 Adv Pharm for NA Prac I

Course Info

Course Title

Advanced Pharmacology for Nurse Anesthesia Practice I

Course Description

This is the first of three courses focusing on advanced pharmacology and physiology as an integral part of modern anesthesia practice.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7715 NA Clinical Internship I

Course Info

Course Title

Nurse Anesthesia Clinical Internship I

Course Description

This course is designed to provide beginning nurse anesthesia students with an introduction to clinical anesthesia in a simulated environment. The clinical focus emphasizes patient safety, monitoring during anesthesia administration and perioperative care for patients undergoing local, regional or general anesthesia. Simulation experiences are designed to reinforce topics covered in NRS 6652. Clinical commitment is 2 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

1

NRS 7722 Adv Pharm for NA Prac II

Course Info

Course Title

Advanced Pharmacology for Nurse Anesthesia Practice II

Course Description

This is the second of three courses with a focus on pharmacology and physiology as an integral part of modern anesthesia practice. The focus includes pharmacodynamics, pharmacokinetics, pharmacotherapeutics, pharmacy, toxicology of muscle relaxants, narcotics, beta and alpha adrenergics and autonomic nervous system drugs.PreReq: NRS 7712

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7725 NA Clinical Internship II

Course Info

Course Title

Nurse Anesthesia Clinical Internship II

Course Description

This course builds on knowledge and skills obtained in NRS 7715. The clinical focus emphasizes patient safety, monitoring during anesthesia administration and perioperative care for patients undergoing local, regional or general anesthesia. Care plan development, rotations to affiliate hospitals and weekend assignments begin. Simulation experiences are designed to reinforce topics covered in NRS 6662. Clinical commitment is 2 days/week.PreReq 7715

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
1

NRS 7732 Adv Pharm for NA Prac III

Course Info

Course Title

Advanced Pharmacology for Nurse Anesthesia Practice III

Course Description

This is the third of three courses with a focus on pharmacology and physiology as an integral part of modern anesthesia practice. The focus includes pharmacodynamics, pharmacokinetics, pharmacotherapeutics, pharmacy, toxicology of adjunct drugs including antibiotics, diabetic agents, antiretrovirals, asthma medications, cardiac medications and anithypertensives.PreReq: NRS 7722

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7735 NA Clinical Internship III

Course Info

Course Title

Nurse Anesthesia Clinical Internship III

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. The clinical focus will include anesthesia adminstration for patients undergoing various surgical or therapeutic procedures. Increasingly complex cases will be assigned. Rotations to affiliate sites and weekend or off-shift assignments continue. Simulation experiences are designed to reinforce topics covered in NRS 6672. Clinical commitment: 3 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7745 NA Clinical Internship IV

Course Info

Course Title

Nurse Anesthesia Clinical Internship IV

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. The clinical focus is on providing anesthesia for increasingly complex cases and patients. Clinical assignments will include rotations to affiliating agencies. Anesthesia care plan requirements and weekend off-shift assignments continue. Simulation experiences will focus on preparing for specialty rotations. Clinical commitment is 4 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7755 NA Clinical Internship V

Course Info

Course Title

Nurse Anesthesia Clinical Internship V

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. Students will begin clinical rotations in specialty surgical services such as neurosurgery, cardiac, thoracic, vascular, pediatrics, ENT and obstetrics. Students will also begin clinical rotations to rural affiliate sites. Simulation experinces will focus on low frequency, high-risk scenarios. Clinical commitment is 4 days/week.PreReq: NRS 7745

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7765 NA Clinical Internship VI

Course Info

Course Title

Nurse Anesthesia Clinical Internship VI

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. The clinical focus is on the perioperative care and administration of anesthesia for patients undergoing all types of surgery and various anesthetic techniques in a variety of clinical settings. Simulation experiences will focus on high-risk, low-frequency scenarios. Weekends and off-shift assignments continue. Clinical commitment is 4 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7775 NA Clinical Intnship VII

Course Info

Course Title

Nurse Anesthesia Clinical Internship VII

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. The clinical focus is on the perioperative care and administration of anesthesia for patients undergoing all types of surgery and various anesthetic techniques in various clinical settings. Simulation experiences will focus on high-risk, low-frequency scenarios. Off-shift assignments, anesthetic care plan, and ePortfolio requirements continue. Clinical commitment is 4 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 7785 NA Clinical Intrnship VIII

Course Info

Course Title

Nurse Anesthesia Clinical Internship VIII

Course Description

This course builds on knowledge and skills obtained in previous clinical internships. The clinical focus is on the perioperative care and administration of anesthesia for patients undergoing all types of surgery and various anesthetic techniques in a variety of clinical settings. Simulation experiences will focus on low-frequency, high-risk scenarios care plan requirements and off-shift assignments continue. Clinical commitment is 4 days/week.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8211 Advanced Nursing Theory

Course Info

Course Title

Advanced Nursing Theory

Course Description

This course integrates nursing theories and conceptual models with knowledge from other disciplines to develop and evaluate new theoretical practice models that can be used in research and/or quality improvement projects

Equivalent Courses

NRS800

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

3

NRS 8221 Health System Policy

Course Info

Course Title

Health System Policy and Regulation

Course Description

This course offers theory and activities designed to enhance professional relationships within health systems, emphasizing collaboration, legal and ethical considerations, and their impact on health outcomes. Course activities include engagement in health policy initiatives, allowing students to earn up to 50 practice hours toward DNP completion.

Equivalent Courses

NRS810

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

NRS 8231 Organizational/Systems Ldrship

Course Info

Course Title

Organizational and Systems Leadership

Course Description

This course will prepare graduates to be organizational and systems nurse leaders with a focus on ethical practice, ongoing improvement of health outcomes, and patient safety. Political skills, systems thinking, business, and financial expertise for analyzing quality improvement and cost effectiveness will also be explored. Formerly NRS 820.

Equivalent Courses

NRS820

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
99

Maximum Hours
999

NRS 8241 Nrs/Hlthcare Informatics Ldrsh

Course Info

Course Title

Nursing and Healthcare Informatics Leadership

Course Description

This course focuses on the use of healthcare information technology to support and improve healthcare and system outcomes. This course prepares students to provide organizational leadership regarding healthcare information technology within health systems and/or academic settings.

Equivalent Courses

NRS830

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

99

Maximum Hours

999

NRS 8382 Health Care Economics

Course Info

Course Title

Health Care Economics

Course Description

This course combines concepts from economics with empirical evidence that supports practice to enhance students' understanding of how health care industries and markets function. Institutional features of health economics including economic assessment of new technologies, appraisal of appropriate prices, variable public and private investments, and strategies will be explored.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

99

Maximum Hours

999

NRS 8504 Interpro Role Dev & Ethic NA

Course Info

Course Title

Interprofessional Role Development and Ethics for Nurse Anesthesia

Course Description

This course explores the theoretical foundations of role theory, role development, and ethics as they relate to the advanced practice role of the nurse anesthetist. It further explores nurse anesthesiology's specific competencies and responsibilities, emphasizing the regulatory and legal requirements that shape these roles. The course also analyzes the influence of emerging trends on healthcare delivery and their implications for the nurse anesthesia profession. Additionally, it covers the business aspects of anesthesia practice, including practice management, reimbursement methodologies, and payment policies.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8671 Adv Scientific Methods for EBP

Course Info

Course Title

Advanced Scientific Methods for Evidence-Based Practice

Course Description

This course lays the foundation needed for nurses in advanced roles to engage in the process of scholarly inquiry which includes research, evidence-based practice and quality improvement. Students study research and quality improvement methods to prepare them to translate best evidence into practice.

Equivalent Courses

NRS890

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

NRS 8681 Clin Prevent/Population Health

Course Info

Course Title

Clinical Prevention and Population Health

Course Description

The course focuses on the health promotion and risk reduction and prevention for individuals and families in institutional and community settings. The graduate student will engage in the assessment of institutional evidence and epidemiological, biostatistical, occupational, and environmental data sets to design population health services for individuals, aggregates and populations.

Equivalent Courses

NRS892

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

3

NRS 8712 Theory & Translating Research

Course Info

Course Title

Translating Research for Evidence-Based Practice

Course Description

The focus of this course is to prepare students to critically analyze, evaluate, and synthesize the literature to inform evidence-based practice. This course is designed to support students in developing their scholarly project proposals.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8722 Adv Prac Sem NA II: Adv Resp

Course Info

Course Title

Advanced Practice Seminar for Nurse Anesthesia II: Advanced Concepts in Respiratory, Pain Physiology

Course Description

This is a scholarly and clinically related seminar course that critically engages students at the doctoral level while immersing them into the specialty of nurse anesthesia practice. The focus of this seminar is on respiratory and pain physiology as it relates to nurse anesthesia and advanced clinical practice. PreReq: NRS 6682

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8732 Adv Conc Peri Cardiac Care

Course Info

Course Title

Advanced Concepts in Perioperative Cardiac Care

Course Description

This course provides an in-depth understanding of cardiovascular assessment and management, focusing on the interpretation of 12-lead EKGs and the application of cardiac pathophysiology in the perioperative setting. Students will develop the ability to accurately assess cardiac rhythm, identify abnormalities, and utilize this information to guide clinical decision-making in patients with cardiac conditions. The course will also emphasize developing and implementing effective perioperative management plans for patients with cardiovascular diseases, integrating knowledge of pathophysiology to optimize patient outcomes. By the end of the course, students will be equipped to address the complex needs of cardiac patients in the perioperative period.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8742 Approaches to Healthcare Educa

Course Info

Course Title

Advanced Practice Seminar for Nurse Anesthesia IV: Approaches to Healthcare Education

Course Description

This is a scholarly and clinically related seminar course that critically engages students at the doctoral level while immersing them into the specialty of nurse anesthesia practice. The focus of this seminar is on healthcare education as it relates to nurse anesthesia and advanced clinical practice. PreReq: NRS 6662

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8762 Cumulative Review

Course Info

Course Title

Cumulative Review

Course Description

This course is designed to thoroughly prepare students for the National Certifying Exam (NCE) by providing focused review and practice across all essential content areas. Through a series of Self-Evaluation and Apex exams, students will assess their readiness for certification and ensure proficiency in key concepts and skills required for the exam. By the end of the course, students will demonstrate the knowledge and readiness needed to succeed on the NCE, achieving a score on the Self-Evaluation Exam that confirms their preparedness and proficiency in all relevant content areas.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

NRS 8782 Grant Writing

Course Info

Course Title

Grant Writing

Course Description

The course is designed to provide students with knowledge and skills necessary to conduct a systematic synthesis of research and writing a grant. This seminar includes in-depth review of processes and components of grants; research teams to develop substantive content; and peer review and critique. Prerequisite(s): NRS 5312

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

NRS 8998 DNP Final Project

Course Info

Course Title

DNP Final Project

Course Description

The DNP Final Project is a comprehensive, integrative experience that reflects the synthesis of program course work and mastery of expert practice knowledge in the translation of current research to improve nursing practice or healthcare outcomes for patients, families, populations, or systems. This 8-credit course will incorporate 4 phases: project development, implementation, analysis, and dissemination of findings. Activities completed within NRS 8998 are linked to DNP practice hours; students can earn between 48-64 practice hours per credit per semester towards the completion of the DNP.

Equivalent Courses

NRS899

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

1

Credit Hours

Max:

8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	13

NRS 9201 Phil Found Adv Thry Dev

Course Info

Course Title

Philosophic Foundations of Advanced Theory

Course Description

This course provides students in nursing with the opportunity to synthesize philosophy of science positions found within and exterior to nursing with advanced nursing theory development processes. The course focuses on critical analysis and evaluation of major theoretical positions within nursing. Prerequisite (s): NRS 5312 or an equivalent graduate level nursing theory course.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

NRS 9202 Adv Hlth Care Stat

Course Info

Course Title

Advanced Health Care Statistics

Course Description

The course will cover a range of advanced quantitative techniques, such as discriminant analysis, logistic regression analysis, principle component analysis, factor analysis, and cluster analysis. Students will also explore statistical analysis for advanced quantitative designs. Prerequisite (s): NRS 5302 or graduate statistics course (minimum 3 credits).

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

NRS 9311 Qual Research Methods

Course Info

Course Title

Qualitative Research Methods

Course Description

This course examines the principles and modes of qualitative research designs. Students will critically analyze systematic inquiry, gathering and interpreting data generated for the understanding the individual, families and communities, their transactions with others and their environments. Sampling methods will be discussed and analyzed with applicable computing packages. These activities will focus on health care quality and/or health outcomes with a global perspective.

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

NRS 9312 Quan Research Methods

Course Info

Course Title

Quantitative Research Methods

Course Description

This course will cover basic concept application of descriptive and relational research design and statistics. Students will be introduced to design available to address research aims, moving from descriptive to experimental. Statistical computing packages will be used. Students will be expected to generate and interpret results from statistical software. These activities will focus on health care quality and/or health outcomes with global perspective. Prerequisite (s): NRS 9202

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

NRS 9315 Measure, Design, and Big Data

Course Info

Course Title
Measurement, Design, and Big Data

Course Description
This course will focus on various types of measurement and related issues to design. Additionally, students will explore the use of large data sets and the measurement concerns with Big Data analysis.Prerequisite: NRS 9202

College/School
School of Nursing

Department
Nursing

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	6

NRS 9696 Dissertation Proposal Synthesi

Course Info

Course Title
Dissertation Proposal Synthesis

Course Description
This course Promotes interactive collaborative work between the student and his/her dissertation chair in preparation for the qualifying examination and dissertation work. Prerequisite(s): NRS 9311 and NRS 9312

College/School
School of Nursing

Department
Nursing

Credits

Credit Hours

Units:	Credit Hours Max:
1	2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

NRS 9911 Health Care Quality

Course Info

Course Title

Health Care Quality

Course Description

This course focuses on quality health care domains of inquiry from individual to population perspectives. Quality is examined within health care institutions from local to global perspectives. Emphasis will include the development and execution of quality improvement and patient safety programs. Students will examine concepts such as patient safety culture, application of quantitative and qualitative methods, and experiences in leading interdisciplinary teams.Prerequisite: NRS 9201

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code
RP

Repeat Limit
99

Maximum Hours
999

NRS 9913 Adv of Health Outcomes

Course Info

Course Title

Advancement of Health Outcomes

Course Description

This course examines lines of inquiry and health outcomes from a global perspective. Prerequisite (s): NRS 9201

College/School

School of Nursing

Department

Nursing

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code
RP

Repeat Limit
99

Maximum Hours
999

NRS 9999 Dissertation Research

Course Info

Course Title
Dissertation Research

Course Description
The completion of a specific project that is reviewed and evaluated by an academic committee is required for graduation. This project demonstrates synthesis of the student's course work and lays the foundation for future scholarship. Student must have reached candidacy status.

College/School
School of Nursing

Department
Nursing

Credits
Credit Hours

Units:	Credit Hours
1	Max: 10

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ORG 5300 Organizational Behavior

Course Info

Course Title
Organizational Behavior

Course Description
Organizational behavior is analyzed at individual, group and organizational levels. Individual and group processes such as perception, learning, motivation, communication and conflict are studied in depth. Organizational-level topics include size, structure, complexity and effectiveness. Where appropriate, cross-cultural issues will be discussed. Formerly ORG 530.

Equivalent Courses
ORG530

College/School
School of Business Admin.

Department
Organizational Leadership

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ORG 5900 Special Topics in Org Behavior

Course Info

Course Title
Special Topics in Organizational Behavior

Course Description
Analyzes topics related to organizational behavior and/or human resources management. Topics may include: job design, total quality management, compensation, management across cultures, research methods and the dark side of the organization. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated.

Equivalent Courses
ORG6900

College/School
School of Business Admin.

Department
Organizational Leadership

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

ORG 6310 Strategic Human Resource Mgt

Course Info

Course Title
Strategic Human Resource Management

Course Description
Strategic human resource policies and processes in areas such as employee selection, training, development, legal policies and implications, evaluation, retention and recognition and reward from a U.S. and global perspective. Current research and functional knowledge will be discussed in detail as students improve their understanding of the strategic implications and application of key human resource processes and procedures. Prerequisite: ORG 5300.

Equivalent Courses
ORG631

College/School
School of Business Admin.

Department
Organizational Leadership

Credits
Credit Hours

Units:
3

ORG 6320 Change Management

Course Info

Course Title
Change Management

Course Description
This course provides an overview to the issues in change management. We will examine the theories of change management, the role that both leaders and recipients of change play as well as the organizational context (e.g., culture, politics and structure) that embeds any transformation. Formerly ORG 632. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses
ORG632

College/School
School of Business Admin.

Department
Organizational Leadership

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

ORG 6350 Decision Making in Orgs

Course Info

Course Title
Decision Making in Organizations

Course Description
A comparison of current cognitive, social and organizational approaches to the study of decision making. Behavioral information processing concepts will be used as an aid to understanding how managerial decisions are made. Examples are introduced from functional management, as well as policy and strategy. Formerly ORG 635. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses
ORG635

College/School
School of Business Admin.

Department
Organizational Leadership

Credits

Credit Hours

Units:
3

ORG 6360 Leadership & Group Performance

Course Info

Course Title

Leadership and Group Performance

Course Description

Comprehensive examination of different leadership theories, with emphasis on relevant empirical evidence and application of the theories to case studies. Formerly ORG 636. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses

ORG636

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

ORG 6370 Motivation and Work Behavior

Course Info

Course Title

Motivation and Work Behavior

Course Description

Analysis of the individual and organizational factors affecting employee motivation, performance and satisfaction. Includes the role of leadership, job design, environmental variation, compensation policies, goal-setting techniques and group influences. Formerly ORG 637. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses

ORG637

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

ORG 6700 International Org Behav & HR

Course Info

Course Title

International Organizational Behavior and Human Resources

Course Description

This course examines international organizations' behavior and resource management in preparation for work in a global environment. Cross-cultural training, managing global managers, compensation, labor relations and repatriation are among the topics covered. Offered every other year. Formerly ORG 670. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses

ORG670

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

ORG 6720 Creativity

Course Info

Course Title

Creativity

Course Description

Creativity and innovation have become catch phrases in modern management. This course explores a number of issues: What is creativity? Is creativity different from innovation? Do organizations actually support creativity? Who gets to be creative in an organization? What role does failure play in successful creative effort? Do other popular organizational processes such as continuous improvement work at cross-purposes to creativity? The objective of this course is to examine creativity in a variety of contexts as well as provide the participant with insights on their own creativity. Formerly ORG 672. Prerequisite: ORG 5300 or have completed a course in organizational behavior.

Equivalent Courses

ORG672

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

ORG 6900 Special Topics: Org. Behavior

Course Info

Course Title

Special Topics in Organizational Behavior

Course Description

Analyzes topics related to organizational behavior and/or human resources management. Topics may include: job design, total quality management, compensation, management across cultures, research methods and "the dark side" of the organization. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly ORG 680. Prerequisite: ORG 5300.

Equivalent Courses

ORG680

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
9

ORG 6970 Independent Study/Org Behavior

Course Info

Course Title

Independent Study in Organizational Behavior

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly ORG 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

ORG690

College/School

School of Business Admin.

Department

Organizational Leadership

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
6

PA 5010 Rsrch Perspective & Techniques

Course Info

Course Title
Research Perspectives and Techniques

Course Description
Introduction to descriptive statistics, research design and methods of data analysis. Formerly PA 522.

Equivalent Courses
PA522, PA522P

College/School
College of Arts and Sciences

Department
Political Science

Credits
Credit Hours

Units:
2

PA 5020 Intro Gov & Nonprofit Acctng

Course Info

Course Title
Introduction to Government and Nonprofit Accounting

Course Description
Introduction to governmental fund accounting. Examination of the positions involved in governmental accounting and governmental fund accounting principles and practices. Formerly PA 524.

Equivalent Courses
PA524

College/School
College of Arts and Sciences

Department
Political Science

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PA 5030 Government and the Economy

Course Info

Course Title

Government and the Economy

Course Description

Introduction to the role of government in the economy, including an examination of federal, local, and international fiscal and monetary policies. PA 5030 is cross listed with undergraduate course, PS 4030. Students cannot receive credit for both courses. Formerly PA 526.

Equivalent Courses

PA526

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

4

PA 5040 Intergovernmental Relations

Course Info

Course Title

Intergovernmental Relations

Course Description

Conflict and cooperation between, and among, national, state and local governments. Illustrations are drawn from programs in social services, community development and regulation. Student must have graduate standing or junior/senior status with at least three courses in political science or have permission of M.P.A director. Formerly PA 503.

Equivalent Courses

PA503

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5050 Administrative Ethics

Course Info

Course Title

Administrative Ethics

Course Description

Exploration of ethical components of administrative decision making and activities in public and not-for-profit agencies. Includes personnel decisions, service delivery procedures and measures of program performance. Provides a forum for judging ethical behavior, to help understand how ethical considerations permeate all job-related activities and to assist ethical decision-making skills. Formerly PA 548.

Equivalent Courses

PA548, PA548P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

PA 5060 Strategic Planning

Course Info

Course Title

Strategic Planning

Course Description

Theoretical and historical perspectives of strategic planning. Components of a strategic planning model; leadership issues. Planning environment. Planning in nonprofit, health care, and public sector organizations. Internal data assessments. Developing and implementing operating plans. Contingency plans. Practical issues associated with strategic planning. Counts as credit for health care, nonprofit organization and management, or local government concentrations. Formerly PA 610.

Equivalent Courses

PA610

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5070 Risk Management

Course Info

Course Title

Risk Management

Course Description

This course will provide a description of the concept of risk management in the public sector. Topics include: risk identification, loss control and safety, insurance and the law, loss prevention and evaluation, placement of insurance and financial responsibility. Formerly PA 634.

Equivalent Courses

PA634

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

PA 5100 Foundations of Public Admin

Course Info

Course Title

Foundations of Public Administration

Course Description

Fundamental concepts of public administration, their origin and development. Distinguishes between public and private and between government and administration. Formerly PA 501.

Equivalent Courses

PA501, PA601

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5110 Law & Public Policy

Course Info

Course Title

Law and Public Policy

Course Description

The impact of "the rule of law" concept on administrative policy, practice and decision making. Examines the effects of existing procedural requirements on the exercise of administrative discretion, the role of the courts and the likely consequences of proposed "reforms." Student must have graduate standing, or junior/senior status with at least three courses in political science, or permission of M.P.A director. Formerly PA 541.

Equivalent Courses

PA541

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5111 Publ Serv Accountability & Law

Course Info

Course Title

Public Service Accountability and the Law

Course Description

The basic principles, concepts, and values of constitutional law necessary for policy decision-making and implementation by public administrators.

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

PA 5120 Law & Admin: Local Perspective

Course Info

Course Title

Law and Administration: Local Perspectives

Course Description

The relationships between local government and the legal system with special attention to: 1) legal constraints on administrative discretion; 2) tensions between corporation counsels or prosecutors and administrators; 3) civil vs. criminal procedures and their impact on local decision making; and 4) federal/local and state/local relationships and the courts. Formerly PA 542

Equivalent Courses

PA542

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

PA 5130 Law & Admin:State Perspective

Course Info

Course Title

Law and Administration: State Perspectives

Course Description

State administrators and the legal system: 1) the roles of the administrative and agency hearing offices; 2) tensions between the administrative and agency hearing offices; 3) agencies and civil courts; and 4) agencies and the attorney general. Formerly PA 543

Equivalent Courses

PA543

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

PA 5140 Public Adm: Issues & Problems

Course Info

Course Title

Public Administration: Issues and Problems

Course Description

Contemporary controversies and trends in public administration systems. May be counted toward a concentration as appropriate. Formerly PA 602.

Equivalent Courses

PA602

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

4

PA 5150 Contemporary Public Mgt Tech

Course Info

Course Title

Contemporary Public Management Techniques

Course Description

Application of contemporary public management techniques, such as Total Quality Management (TQM). Managers as change agents and leaders of quality improvement and excellence in the workplace. Strategies for implementing these programs. Counts as credit for all concentrations in the M.P.A. program. Formerly PA 603.

Equivalent Courses

PA603

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5160 Public Administration Workshop

Course Info

Course Title
Public Administration Workshop

Course Description
Selected applied problems and exercises led by regular adjunct faculty or with the cooperation of practicing public administrators. Formerly PA 660.

Equivalent Courses
PA660

College/School
College of Arts and Sciences

Department
Political Science

Credits

Credit Hours

Units:	Credit Hours
2	Max: 3

PA 5200 Public Budgeting and Finance

Course Info

Course Title
Public Budgeting and Finance

Course Description
How governments raise funds and allocate them among competing purposes. Relations between agencies and executive budget offices and between executive and legislative branches of government. The elements of budget preparation, defense and review under various systems, line-item, performance, program, PPBS and zero-base budgets are presented. Formerly PA 653, PA 553.

Equivalent Courses
PA553, PA653

College/School
College of Arts and Sciences

Department
Political Science

Credits

Credit Hours

Units:
3

PA 5210 Workshop in Budgetng

Course Info

Course Title

Workshop in Budgetng

Course Description

Basic principles of public sector budgeting from the perspective of a practitioner at the state or local level. Formerly PA 657.

Equivalent Courses

PA657

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

PA 5300 Human Resources Mgmt Pub Sectr

Course Info

Course Title

Human Resources Management for the Public Sector

Course Description

Study of human resources management in public agencies, the legal and political environment, managerial concerns and employee rights, and the problems of public employee collective bargaining. Formerly PA 654, PA 554.

Equivalent Courses

PA554, PA654

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5310 Public Sector Emplpy Rela

Course Info

Course Title

Public Sector Employee Relations

Course Description

Policies and practices relating to employee relations and collective bargaining in the public sector. Formerly PA 638.

Equivalent Courses

PA638

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

PA 5320 Current Issues Human Rsce
Mgmt

Course Info

Course Title

Current Issues in Public Sector Human Resources Management

Course Description

Selected topics in human resources management, emphasizing state, county and local experiences. Topics can include: contract maintenance and compliance, merit systems, comparable worth, drug testing, employee assistance programs, affirmative action, mediation, arbitration and others as they emerge over time. Formerly PA 644.

Equivalent Courses

PA644

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

PA 5400 Local Government Management

Course Info

Course Title

Local Government Management

Course Description

Fundamentals of local government management. Topics to be covered include: politics and management; the management environment; leadership; staffing and personnel; employee motivation; local budgets; the local economy; and ethics. This course is required for students electing the Local Government Management concentration. Formerly PA 630.

Equivalent Courses

PA630

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

PA 5500 Non-Profit Orgnztn & Mgt

Course Info

Course Title

Nonprofit Organization and Management

Course Description

Fundamentals of nonprofit organization and management. Differences between the nonprofit and the for-profit and public sectors. Board and staff relations. Management theories; leadership styles. Human resource development; financial management; planning and accounting. Marketing, public relations and ethical issues. Case studies and specific management techniques. Formerly PA 510.

Equivalent Courses

PA510

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5600 Org/Admin Hlth/Med Prog

Course Info

Course Title

Organization and Administration of Health and Medical Care Programs

Course Description

Emphasis on the application of administrative and organizational analytical perspectives to health and human service organizations. Concepts and perspectives from the governmental and public interest concerns will be applied. Formerly PA 569.

Equivalent Courses

PA569, PH569, PH6700

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5700 Org/Mgt/Crimn'l Just Agencies

Course Info

Course Title

Organization and Management of Criminal Justice Agencies

Course Description

Examines past and present organization and management process of criminal justice agencies. The functions of planning, organizing, leading, motivating, communicating and decision making will be covered. Application of these functions to the various components of the American criminal justice system will be explored. Formerly PA 560.

Equivalent Courses

PA560

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 5800 Court Administration

Course Info

Course Title

Court Administration

Course Description

Introductory examination of the field of court administration through review of its historical, cultural, economic and political aspects, as well as future trends and goals. Formerly PA 540.

Equivalent Courses

PA540

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6100 Quantitative Meth Public Adm

Course Info

Course Title

Quantitative Methods in Public Administration

Course Description

A study of quantitative methods for use in the public sector. Emphasis on data analysis for decision making and attention to common computer techniques are included. Formerly PA 620. Prerequisite: PA 5010 (or equivalent) and permission of instructor.

Equivalent Courses

PA620, PA620P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6200 Pub Sector Info Systems Mgmt

Course Info

Course Title

Public Sector Information Systems Management

Course Description

Essential tools for management decision making and program evaluation; data management, information retrieval, selected computer packages and report writing are covered. Formerly PA 621.

Equivalent Courses

PA621

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
8

PA 6300 Program and Policy Evaluation

Course Info

Course Title

Program and Policy Evaluation

Course Description

How to judge the success of programs; problems of design, data collection and analysis to sort out causes and evaluate effects; cost-benefit analysis; the organizational and political aspects of evaluation studies. Formerly PA 655.

Equivalent Courses

PA655, PA655P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6400 Econ Development Theory/ Pract

Course Info

Course Title

Economic Development Theory and Practice

Course Description

The democratic process and political context within which economic development occurs. Current local economic development strategies are examined with special attention given to the political process involved and the economic developer's relationships with elected executives, legislatures, the judiciary, the business community, media and interest groups. Formerly PA 535.

Equivalent Courses

PA535

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6410 Community Planning & Zoning

Course Info

Course Title

Community Planning and Zoning

Course Description

A comprehensive study of municipal planning, zoning and general government from the perspective of the public administrator. Topics include: state legislation, state and federal grant programs, making a Master Plan, the impact of court decisions, housing and fiscal impact analysis, impact fee calculation and public works and capital improvements programming. Formerly PA 669.

Equivalent Courses

PA669

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6500 Fundraising & Philanthropy

Course Info

Course Title

Fundraising and Philanthropy

Course Description

Issues of fundraising and philanthropy in the nonprofit sector. Case studies of nonprofit fundraising from a variety of nonprofit organizations. Sources of funding: government, public and private foundations, corporate giving, and individual contributions. Ethics and values in fundraising. Strategies and techniques of fundraising. Formerly PA 511.

Equivalent Courses

PA511

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6510 Grants:Politics/Administration

Course Info

Course Title

Grants: Politics and Administration

Course Description

An examination of the grant process from the varying perspectives of the granting agencies, the requesting agencies, the institutional offices responsible for compliance and the ultimate recipients. Formerly PA 631.

Equivalent Courses

PA631

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

PA 6600 Public Policy & Health Care

Course Info

Course Title

Public Policy and Health Care

Course Description

An examination of the status and evolution of public policies relating to health and health care, the policy-making processes in health care and the various implications of trends in health care policy. Formerly PA 559.

Equivalent Courses

PA559, PA559P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6610 Hlth Plan: Policies & Process

Course Info

Course Title

Health Planning: Policies and Processes

Course Description

The roles and functions of planning in the health care system. Concepts, techniques, issues and policies relating to health planning and other human services will be examined. Analytic tools will be applied to a number of health problems. Formerly PA 568.

Equivalent Courses

PA568

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6700 Law Enforcement Leadership

Course Info

Course Title

Law Enforcement Leadership

Course Description

Examines past and present principles and theories of organization as they relate to law enforcement agencies. The structure and relationship among all levels of law enforcement institutions will also be examined, particularly for their effects on operations and outcomes. Formerly PA 561.

Equivalent Courses

PA561

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6710 Security Leadership

Course Info

Course Title

Security Leadership

Course Description

Examines the organization and management of security operations in government, business and industry, including administrative and quantitative techniques for security management. The relationship between private security and law enforcement will be examined. Formerly PA 562

Equivalent Courses

PA562

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6720 Corrections Leadership

Course Info

Course Title

Corrections Leadership

Course Description

Examines the current administrative organization and operational practices in correctional institutions. Provides students with information and tools needed to become the managers and leaders of correctional organizations. Formerly PA 563.

Equivalent Courses

PA563

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6800 Advanced Court Administration

Course Info

Course Title

Advanced Court Administration

Course Description

Advanced examination of court administration, including such topics as budgeting, personnel management, jury management, and alternative dispute resolution. Formerly PA 640. Prerequisite: PA 5800.

Equivalent Courses

PA640

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

3

PA 6900 Special Topics Public Admin

Course Info

Course Title

Special Topics in Public Administration

Course Description

Special topics in public administration offered by the department. May be counted toward a concentration as appropriate. Formerly PA 692.

Equivalent Courses

PA692, PA692P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:	Credit Hours Max:
2	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

PA 6920 Directed Readings

Course Info

Course Title

Directed Readings

Course Description

Special readings designed to supplement or augment the course offerings. Not more than 6 credits of directed readings may be counted towards fulfillment of degree requirements. Student must be fully admitted with at least 20 credits in the M.P.A. program and must have permission of the M.P.A. director. Formerly PA 691.

Equivalent Courses

PA691

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:	Credit Hours Max:
2	3

PA 6950 Internship

Course Info

Course Title

Internship

Course Description

Supervised assignment in a public agency for approximately 32 weeks; periodic reports and evaluations. Student must have permission of M.P.A. director. Formerly PA 658.

Equivalent Courses

PA658

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

4

PA 6996 Master's Project

Course Info

Course Title

Master's Project

Course Description

Student-conducted analysis and development of actionable recommendations for an issue faced by a public or non-profit organization appropriate to the organization's mission and resources. Provides a framework for learning project analysis and communication while synthesizing MPA program content. Formerly PA 690.

Equivalent Courses

PA690, PA690P

College/School

College of Arts and Sciences

Department

Political Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 5010 Anatomical Science

Course Info

Course Title

Anatomical Science

Course Description

The Anatomical Science course provides Physician Assistant students with a comprehensive foundation in functional human anatomy, utilizing both regional and systemic approaches. Emphasis is placed on the clinical relevance of anatomical structures to support the development of applied medical knowledge. Instructional methods include lectures, supervised Anatomage dissection, anatomical teaching models, and the integration of radiographic imaging to facilitate the correlation between anatomical form and clinical function. This course serves as a critical foundational component for the core curriculum of the OU MPAS program.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

5

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
5

PAS 5020 Foundation in Medical Sci

Course Info

Course Title

Foundations in Medical Science

Course Description

The Foundations in Medical Science course provides Physician Assistant students with a fundamental understanding of the basic sciences essential to studying health and disease. It covers medical microbiology, genetics, pathology, and pathophysiology, serving as the scientific framework for advanced curriculum and future patient care. Microbiology explores the fundamental principles of bacteriology, virology, mycology, and parasitology, emphasizing their role in human health and disease. Genetics examines the genetic basis of disease, patterns of inheritance, and genetic influences on disease susceptibility and response. Pathology focuses on structural and functional tissue changes, providing insight into disease processes, progression, and diagnostic methods. Pathophysiology investigates the mechanisms of human disease, including prevalence, clinical significance, diagnosis, treatment, and prognosis. This course serves as a critical foundation for the core curriculum of the OU MPAS program, equipping students with the scientific knowledge necessary for clinical decision-making.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PAS 5030 Medical Interview & Document

Course Info

Course Title
Medical Interview & Document

Course Description
Patient interviewing technique, medical history, and documentation of patient encounters.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5040 Psychosocial Factors in Med

Course Info

Course Title
Psychosocial Factors in Medicine

Course Description
The Psychosocial Factors in Medicine course focuses on developing cultural humility among physician assistant students while increasing awareness of the diverse factors that influence patient communication and care. Students will explore how disability status, special healthcare needs, race, ethnicity, religion, gender identity, sexual orientation, and socioeconomic status affect patient's healthcare experiences and outcomes. In addition, students will examine their own biases and learn strategies to mitigate them, fostering a mindful and respectful approach to patient care. This course emphasis is placed on developing patient-centered, culturally sensitive, and socioeconomically considerate communication skills essential for providing equitable and compassionate healthcare in diverse clinical settings.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5050 Public Health Science

Course Info

Course Title

Public Health Service

Course Description

This course provides physician assistant students with a comprehensive understanding of public health principles, focusing on population health trends, disease prevention, and health promotion strategies. Students will explore major public health epidemics, the impact of social determinants of health, and evidence-based approaches to improving community health outcomes. Through case studies and real-world applications, students will develop the skills necessary to assess public health challenges, implement prevention strategies, and advocate for policies that enhance healthcare access and equity. This course prepares future PAs to integrate public health perspectives into clinical practice and contributes to advancing preventative medicine on a population level.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

PAS 5060 PA Professional Practice

Course Info

Course Description

The PA Professional Practice course offers an in-depth exploration of the profession of Physician Assistants, focusing on the history and evolution of the profession and the role of professional organizations. Students will also examine the U.S. healthcare system, including healthcare delivery models, reimbursement documentation, coding services, and medical research. Public health topics will include Healthy People 2023, rural and underserved community health, epidemiology, health screening and disease prevention, infectious diseases, and emerging health threats. The course will further explore environmental health, work-related health issues, injury prevention, rehabilitation services, and correctional healthcare. By the end of the semester, students will have a broad understanding of the healthcare landscape, public health policies, and the skills needed to address healthcare challenges in diverse settings.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

PAS 5110 Clinical Med Sci and Reason I

Course Info

Course Title

Clinical Medical Science and Reasoning I

Course Description

The Clinical Medical Science and Reasoning I course is the first in a three-part series designed to prepare Physician Assistant students for clinical practice through a comprehensive, organ-system-based approach. It provides a strong foundation in etiology, pathophysiology, clinical presentation, diagnosis, treatment, management, and prevention of diseases across the human lifespan. It equips students with the knowledge necessary for effective patient assessment and management in clinical practice. Topics covered in this course include HEENT (head, eyes, ears, nose, and throat), hematology-oncology, dermatology, endocrinology, and gastroenterology. Each condition covered in this course will be examined through the lens of ordering and interpreting laboratory and imaging studies, generating differential diagnoses, implementing evidence-based and patient-centered treatment plans, and assessing prognosis. At the end of this course, students will develop critical medical decision-making skills and a commitment to lifelong learning through lectures, self-study, team-based learning, evidence-based research, and problem-solving case studies. This course establishes the clinical reasoning framework that will be expanded upon in subsequent courses, ensuring students are well-prepared for clinical rotations and professional practice. This course is part of the OU MPAS Program core curriculum.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

5

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	5

PAS 5120 Pharmacology I

Course Info

Course Title

Pharmacology & Pharmacogenetics I

Course Description

The Pharmacology I course is the first in a three-part series covering clinical pharmacology as it applies to the professional physician assistant role. It introduces pharmacological principles involved in disease prevention, treatment, and wellness promotion across the lifespan. Students will explore commonly used medications, including their classifications, mechanisms of action, indications, contraindications, formulations, metabolism and excretion pathways, adverse effects, and drug interactions. Additionally, this course will focus on the pharmacological management of HEENT, dermatological, endocrine, hematological/oncologic and gastrointestinal conditions. Designed to align with Clinical Medical Science and Reasoning I, this course is part of the OU MPAS Program core curriculum.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5130 Patient Assess Lifespan I

Course Info

Course Title

Patient Assessment Across the Lifespan I

Course Description

The Patient Assessment Across the Lifespan I course is the first in a three-part series designed to introduce physician assistant students to the foundational skills required for patient assessment. Utilizing a body-systems approach, students will develop competency in eliciting a medical history, performing physical examinations, and documenting patient encounters. Instruction will emphasize normal and abnormal physical examination findings, focusing on the HEENT (head, eyes, ears, nose, throat), dermatological, hematological, endocrinological, and gastroenterological systems. Students will also be introduced to patient interviewing techniques, medical history-taking, and professional documentation practices. Emphasis is placed on patient-centered communication, ethical and legal considerations in documentation, and the development of quality interpersonal skills essential for clinical practice. This course aligns with the Clinical Medical Science and Reasoning I course, allowing for horizontal and vertical integration of medical knowledge and assessment skills. By learning these foundational assessment techniques alongside their study of disease processes, students develop a comprehensive and systematic approach to patient evaluation.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 5140 Diagnostic Sciences I

Course Info

Course Title

Diagnostic Sciences I

Course Description

The first in a three-part series, the Diagnostic Sciences I course introduces Physician Assistant students to foundational knowledge in laboratory testing, imaging modalities, and medical procedures. Students will apply these concepts to the HEENT, dermatological, hematological, endocrinological, and gastroenterological systems. This course covers indications, contraindications, precautions, complications, techniques, cost-effectiveness, patient preparation, and the ordering and interpretation of laboratory and imaging studies. Emphasis is placed on developing clinical and technical skills, fostering procedural competency and diagnostic reasoning. Hands-on training with procedural kits and tools allows students to practice clinical and technical skills and build proficiency. This CORE course integrates with Clinical Medicine I, aligning with disease pathology, clinical decision-making, and therapeutic interventions. Concepts introduced will be reinforced throughout the didactic phase and applied during clinical practice experiences.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5150 Ethics and Evidence Based Med

Course Info

Course Title
Ethics and Evidence Based Medicine

Course Description
This course is designed to center around education in medico legal concepts, PA professional standard of care and compliance and regulatory issues that govern ethical decision making in the provision of patient care for a variety of diverse patient populations. Students will also examine the importance of quality improvement and risk management. The second half of the course examines the role of evidence-based medicine and its application to clinical care. Evidence-based Medicine is the practice of medicine and patient care that is based on the best available research evidence to guide clinical decisions and is applicable to the individual patient. It integrates best current available research evidence, clinical experience and individual patient values and expectations.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5210 Clinical Med Sci and Reason II

Course Info

Course Title
Clinical Medical Science and Reasoning II

Course Description
The Clinical Medical Science and Reasoning II course is the second in a three-part series designed to advance physician assistant students' ability to diagnose and manage medical conditions using a comprehensive, organ-system-based approach. Building upon the foundational knowledge from the first course, this course focuses on male and female health, urology, nephrology, pulmonology, and cardiology. Students will explore the etiology, pathophysiology, clinical presentation, diagnosis, treatment, management, and prevention of diseases within these systems. Each condition will be examined through the lens of ordering and interpreting laboratory and imaging studies, generating differential diagnoses, implementing evidence-based and patient-centered treatment plans, and assessing prognosis. Students will refine their medical decision-making skills by utilizing active learning, self-study, group collaboration, evidence-based research, and clinical application and further develop their ability to provide comprehensive patient care. Emphasis will also be placed on disease prevention and strategies to address healthcare disparities. This course continues to build the clinical reasoning framework essential for success in clinical rotations and professional practice, reinforcing the skills necessary for lifelong learning in medicine. This course is part of the OU MPAS Program core curriculum.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
5

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	5

PAS 5220 Pharmacology II

Course Info

Course Title

Pharmacology II

Course Description

The Pharmacology II course is the second in a three-part series covering clinical pharmacology for physician assistant students. Building upon foundational pharmacologic principles, this course focuses on pharmacotherapeutics related to the Cardiovascular, Respiratory, Genitourinary/Renal, Female and Male Reproductive systems and in preparation for the Principles of Infectious Disease course, the pharmacological management of infectious diseases and emerging global infectious threats. Students will examine the classification, mechanisms of action, indications, contraindications, formulations, metabolism and excretion pathways, adverse reactions, and drug interactions of commonly used medications in these areas. Emphasis is placed on advancing evidence-based prescribing skills, patient safety, and the integration of pharmacologic management with disease pathology and clinical decision-making. This course is designed to align with Clinical Medical Science and Reasoning II to reinforce the clinical application of pharmacology in patient care, and it is part of the core curriculum of the OU MPAS Program.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

PAS 5230 Patient Assess Lifespan II

Course Info

Course Title

Patient Assessment Across the Lifespan II

Course Description

Building on the foundational skills acquired in the first course, the Patient Assessment Across the Lifespan II is the second course in the series that enhances students' proficiency in physical examination techniques and clinical reasoning. A body-systems approach will continue to be used, emphasizing urology, nephrology, female and male reproductive organ systems, cardiology, and pulmonology. Students will refine their ability to obtain comprehensive medical histories, perform physical examinations, and recognize key clinical findings that differentiate normal from abnormal presentations. This course further integrates anatomy, physiology, and pathophysiology, reinforcing the clinical relevance of assessment techniques. Effective patient communication, thorough documentation, and professional practice will be emphasized as students develop greater confidence in conducting systematic and accurate physical assessments. This course is designed to align directly with the Clinical Medical Science and Reasoning II course, providing seamless integration of physical examination techniques with disease recognition and management.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PAS 5240 Diagnostic Sciences II

Course Info

Course Title

Diagnostic Sciences II

Course Description

Building upon the foundational knowledge from Diagnostic Sciences I, the Diagnostic Sciences II course advances students’ proficiency in medical procedures and diagnostic interpretation. It focuses on the reproductive (male and female), genitourinary, renal, cardiovascular, and pulmonary systems. Students will further refine their understanding of indications, contraindications, precautions, complications, techniques, cost-effectiveness, patient preparation, and the ordering and interpretation of laboratory and imaging studies. Each module includes hands-on training with procedural kits and tools, allowing students to practice and enhance procedural skills. This course aligns with Clinical Medicine II, reinforcing the integration of diagnostic sciences with disease pathology and clinical decision-making. By strengthening diagnostic reasoning, students will be better prepared for clinical rotations and patient care responsibilities.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
2

PAS 5250 Trends in Medicine & Wellness

Course Info

Course Title

Trends in Medicine and Wellness

Course Description

The Trends in Medicine and Wellness course explores current trends in Western and alternative medicine, examining their impact on patient care and overall wellness. Students will analyze the roles and responsibilities of various healthcare team members, emphasizing the importance of interpersonal engagement and collaboration in modern medical practice. The course also addresses emerging healthcare trends, including their implications for patient outcomes and system-wide changes. Additionally, students will explore the growing integration of alternative medicine with an overview of naturopathy and its connections to allopathic medicine. Provider burnout, impairment and stress management strategies will be discussed, equipping students with tools to maintain personal well-being while delivering high-quality patient care.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
2

PAS 5310 Clin Med Reasoning and Sci III

Course Info

Course Title

Clinical Medical Science and Reasoning III

Course Description

The Clinical Medicine Science and Reasoning III course is the last one in a three-part series designed to refine physician assistant students' ability to diagnose and manage medical conditions using a comprehensive, organ-system-based approach. Building upon the foundational knowledge from the previous courses, this course focuses on orthopedics, rheumatology, neurology, psychiatry, geriatrics, pediatrics, emergency medicine, and surgery. Students will explore etiology, pathophysiology, clinical presentation, diagnosis, treatment, management, and prevention of diseases within these specialties. Each condition will be examined through the lens of ordering and interpreting laboratory and imaging studies, generating differential diagnoses, implementing evidence-based and patient-centered treatment plans, and assessing prognosis. Active learning, self-study, group collaboration, evidence-based research, and clinical application will be emphasized to strengthen students' clinical reasoning and decision-making skills. Additionally, the course will highlight strategies for disease prevention and addressing healthcare disparities to ensure equitable and effective patient management. As the final course in the series, it serves as a pinnacle to the didactic phase of medical education, reinforcing the critical thinking and problem-solving skills necessary for success in clinical rotations and professional practice. This course is part of the OU MPAS Program core curriculum.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

5

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

5

PAS 5320 Pharmacology III

Course Info

Course Title

Pharmacology III

Course Description

Pharmacology III is the final course in a three-part series covering clinical pharmacology for physician assistant students. It focuses on the pharmacologic management of conditions related to rheumatology, orthopedics, neurology, psychiatry, geriatrics, and pediatrics. Students will explore the classification, mechanisms of action, indications, contraindications, formulations, metabolism and excretion pathways, adverse reactions, and drug interactions of medications used in these specialties. The focus is placed on refining clinical decision-making, patient safety, and the integration of pharmacotherapy with disease processes and patient presentations. Designed to align with Clinical Medical Science III, this course provides the final step in preparing students to apply pharmacologic principles effectively in clinical practice. This course is part of the OU MPAS Program core curriculum.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

PAS 5330 Patient Assess Lifespan III

Course Info

Course Title

Patient Assessment Across the Lifespan III

Course Description

As the final course in this three-part series, the Patient Assessment Across the Lifespan III course refines students’ physical examination skills and prepares them to transition from the didactic to the clinical phase. Continuing with a body-systems approach, students will focus on orthopedic, neurological, psychiatric, geriatric, and pediatric evaluations. Students will integrate their knowledge of anatomy, physiology, and pathophysiology with advanced assessment techniques to conduct thorough and efficient patient evaluations. Emphasis will be placed on clinical decision-making, accurate differential diagnosis formulation, and effective documentation of patient encounters. This course bridges classroom-based learning and hands-on clinical training, ensuring students are well-prepared for their clinical rotations and future practice as Physician Assistants. This course is designed to align with the Clinical Medical Science and Reasoning III course, reinforcing the connection between diagnostic reasoning and patient assessment. The horizontal and vertical integration of these topics ensures that students understand disease processes and apply their knowledge in a structured and clinically relevant manner, solidifying their ability to transition into clinical practice.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 5340 Diagnostic Sciences III

Course Info

Course Title

Diagnostic Sciences III

Course Description

As the final course in this three-part series, Diagnostic Sciences III refines students’ procedural and diagnostic skills while preparing them for clinical practice. This course focuses on diagnostic procedures commonly performed in orthopedics, rheumatology, neurology, psychiatry, geriatrics, pediatrics, emergency medicine, and surgery. Students will enhance their clinical competency through hands-on training, utilizing procedural kits and tools to develop and refine essential skills. This course aligns with Clinical Medicine III, reinforcing the integration of diagnostic sciences with patient evaluation and treatment strategies. By bridging the gap between didactic learning and clinical practice, this course ensures students are proficient in the diagnostic and procedural skills necessary for success in clinical rotations and beyond.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 5350 Clin Transition & Adv Document

Course Info

Course Title

Clinical Transitions and Advanced Documentation

Course Description

Transition to clinical applications of medicine and medical documentation.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PAS 5360 Infectious Disease Principles

Course Info

Course Title

Infectious Disease Principles

Course Description

An introduction to Infectious Disease course provides a comprehensive understanding of the diagnosis, management, and prevention of common and emerging infectious diseases. Emphasizing clinical presentation, microbiology, and epidemiology, students will explore appropriate treatment strategies for bacterial, viral, fungal, and parasitic infections. Through case-based learning and evidence-based guidelines, students will develop the skills to effectively assess and manage patients with infectious diseases in diverse clinical settings.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PAS 6100 Family Med Clinical Practicum

Course Info

Course Title
Family Medicine Clinical Practicum

Course Description
This course provides clinical exposure in family medicine under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6200 ER Medicine Clinical Practicum

Course Info

Course Title
Emergency Medicine Clinical Practicum

Course Description
This course provides clinical exposure in emergency medicine under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6300 Internal Med Clinical Practicu

Course Info

Course Title

Internal Medicine Clinical Practicum

Course Description

This course provides clinical exposure in internal medicine under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6400 Surgery Clinical Practicum

Course Info

Course Title

Surgery Clinical Practicum

Course Description

This course provides clinical exposure in surgery under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6500 Pediatrics Clinical Practicum

Course Info

Course Title

Pediatrics Clinical Practicum

Course Description

This course provides clinical exposure in pediatric medicine under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PAS 6600 Women's Health Clinical Practi

Course Info

Course Title

Women's Health Clinical Practicum

Course Description

This course provides clinical exposure in women's health under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PAS 6700 Behavioral Med Clin
Practicum

Course Info

Course Title
Behavioral Medicine Clinical Practicum

Course Description
This course provides clinical exposure in behavioral medicine under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6810 Clinical Elective I

Course Info

Course Title
Clinical Elective I

Course Description
This course is the first of two (2) elective clinical practicums which provide clinical exposure in the field of an elective medical subspecialty under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience

College/School
School of Health Sciences

Department
Clinical and Diagnostic Sci

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PAS 6820 Clinical Elective II

Course Info

Course Title

Clinical Elective II

Course Description

This course is the second of two (2) elective clinical practicums which provide clinical exposure in the field of an elective medical subspecialty under the supervision of a clinical site preceptor. Students will apply the knowledge gained during the didactic curriculum to patient encounters for a 4-week supervised clinical experience.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PAS 6830 Clinical Elective III

Course Info

Course Title

Clinical Elective III

Course Description

Clinical practicum elective. This course provides clinical exposure in any field of medicine under the supervision of a clinical site preceptor.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PAS 6900 PA Science Capstone I

Course Info

Course Title

PA Science Capstone I

Course Description

This will serve as the first course of a three (3) course series throughout Clinical Year. The Capstone courses correlate didactic and clinical components of the program's curriculum and measure if the learner has the medical knowledge, interpersonal, clinical and technical skills, professional behaviors, clinical reasoning, and problem-solving abilities required to enter clinical practice. These courses provide instruction on various topics as to prepare students for PA practice. The Capstone series will conclude with a summative evaluation of each student to ensure that program competencies are met.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	1

PAS 6910 PA Science Capstone II

Course Info

Course Title

PA Science Capstone II

Course Description

This will serve as the second course of a three (3) course series throughout Clinical Year. The Capstone courses correlate with the didactic and clinical components of the program's curriculum and measure if the learner has the medical knowledge, interpersonal, clinical and technical skills, professional behaviors, clinical reasoning, and problem-solving abilities required to enter clinical practice. Capstone II will include an introduction to research where students will participate in literature review in conjunction with the Capstone Project. In addition, this course will cover self-assessment as students encounter the halfway point of their clinical phase as an opportunity for self-reflection and individual growth. In keeping with the preparatory nature of the Capstone series, the students will also participate in various workshops (EKG, Imaging, and PANCE Review) which will prepare students for summative assessments to be completed in the third semester of Clinical Year.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	1

PAS 6920 PA Science Capstone III

Course Info

Course Title

PA Science Capstone III

Course Description

This will serve as the third course of a three (3) course series throughout Clinical Year. The Capstone courses correlate with the didactic and clinical components of the program's curriculum and measure if the learner has the medical knowledge, interpersonal, clinical and technical skills, professional behaviors, clinical reasoning, and problem-solving abilities required to enter clinical practice. In addition, these courses provide instruction on various topics as to prepare students for PA practice. PAS 6920 will include: completion of the CME requirements necessary for licensing in Michigan (Opioids and Controlled Substance Awareness, Identifying Victims of Human Trafficking, and Implicit Bias training) and Summative evaluations of each student to ensure that program competencies are met.

College/School

School of Health Sciences

Department

Clinical and Diagnostic Sci

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

PH 5000 Fndations Hlth Behav/Hlth Ed

Course Info

Course Title

Foundations of Health Behavior and Health Education

Course Description

This course explores the psychosocial bases for health decision-making and health behaviors. The main individual, community-based, and social-ecological conceptual models will be addressed. Perceptions of health and illness, methods of changing health behaviors, and the importance of communication will be covered. Formerly PH 6000.

Equivalent Courses

PH6000

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PH 5100 Principles/Comm-Based Part Res

Course Info

Course Title

Principles of Community-Based Participatory Research

Course Description

Public health research in a community setting can benefit from involvement of community members throughout the research process. Community-based participatory research (CBPR) methods will be explored from a theoretical and practical perspective through various stages of the research process, from conception, grant writing, intervention development, implementation, evaluation, and reporting results. Formerly PH 6100.

Course Attributes

Service Learning Course (SL)

Equivalent Courses

PH6100

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5150 Soc Act Health Sustainability

Course Info

Course Title

Social Action for Health and Sustainability

Course Description

Explores fundamental social action strategies and tactics for policy change. Students implement social action campaigns to advocate for a specific policy change in public health, environmental sustainability, or an issue of their choosing. This course is cross-listed with PH 4150. Students cannot get credit for both PH 5150 and PH 4150

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PH 5200 Planning/Imp/Eval/PH Interven

Course Info

Course Title

Planning, Implementation, and Evaluation of Public Health Interventions

Course Description

This course covers the development of health interventions including literature reviews and program justifications, needs assessment methodologies, and critical review of materials. Issues relevant to implementation and management of health interventions will be addressed. Strategies for effective program evaluation will also be addressed. Formerly PH 6200. Prerequisites: PH 5000 and PH 5100.

Equivalent Courses

PH6200

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5250 Res Methods/Health Disciplines

Course Info

Course Title

Research Methods in Health Disciplines

Course Description

This course introduces students to the research process. Students will learn how to formulate a research question, devise a data collection and analysis plan to answer the research question, and report their results.

Equivalent Courses

PH525

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5350 Environmental Justice

Course Info

Course Title

Environmental Justice

Course Description

This course will cover the origins, core concepts, and impacts of the environmental justice movement by examining how race and class interact to produce or sustain health inequities. Students will examine how environmental injustices occur through structural and community factors, consequences to health, and responses to environmental injustice. Prerequisite: Instructor permission.

Equivalent Courses

PH535

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PH 5410 Biostatistical Method/Pub Heal

Course Info

Course Title

Biostatistical Methods in Public Health

Course Description

This course will cover principles of biostatistics in the context of public health applications. The course will provide a foundation of statistical knowledge, including descriptive statistics, rates and standardization, nonparametric methods, inference on proportions, regression models, and sampling theories. Corequisite(s): PH 5411. Formerly PH 5400 and PH 6400

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PH 5411 Biostatistical Methods/PH Lab

Course Info

Course Title

Biostatistical Methods in Public Health Laboratory

Course Description

In this laboratory course, students will apply principles of biostatistics learned in the concurrent PH 5410 lecture course to analyze and interpret public health data. Students will use statistical software to describe data, as well as to make inferences and test hypotheses regarding population parameters. Corequisite(s): PH 5410.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

1

PH 5450 Applied Biostats in PH

Course Info

Course Title

Applied Biostatistics in Public Health

Course Description

This course will develop students' competency in understanding, interpreting, and applying statistical concepts to characterize health burden, identify inequities and populations at risk, select interventions, and evaluate evidence for behavior, policy, and societal change. The course will provide foundational knowledge on descriptive and inferential statistics. Corequisite(s): PH 5451.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

PH 5451 Applied Biostats in PH Lab

Course Info

Course Title

Applied Biostatistics in Public Health Laboratory

Course Description

This course is the laboratory component of Applied Statistics in Public Health. Students will develop competency in applying statistical concepts and tools to understand disease burden, identify health inequities and populations at risk, evaluate statistical evidence for behavior, policy, and societal change, and communicate statistical results to a general audience. Corequisite: PH 5450

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

PH 5500 Introduction to Epidemiology

Course Info

Course Title

Introduction to Epidemiology

Course Description

This course introduces students to the basic concepts and methods involved in the study of the distribution and determinants of diseases in populations. Content will include types of epidemiologic research, biases in design and sources of error, as well as techniques for analyzing epidemiologic data. Formerly PH 6500.

Equivalent Courses

PH6500

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PH 5550 Qualitative Research Methods

Course Info

Course Title

Qualitative Research Methods

Course Description

This course will cover the underlying epistemology, study design principles, data collection methods, and data analysis strategies of qualitative research. Students will read, critique, and discuss examples of published qualitative research and then collect and analyze qualitative data to answer a research question of their choice. Instructor permission required. Formerly PH 555. This graduate course is cross listed with an undergraduate course (PH 4550). Credit will be awarded for only one of HS 4550, PH 555 or PH 5550.

Equivalent Courses

PH555

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5600 Intro to Environmental Hlth Sc

Course Info

Course Title

Introduction to Environmental Health Sciences

Course Description

This course presents the core concepts, principles and applications of environmental health sciences. Students will learn the sources of and ways to control the important physical, chemical, biologic, and sociologic factors that impact human health in various environments. Formerly PH 6600.

Equivalent Courses

PH6600

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PH 5650 Social Determinants of Health

Course Info

Course Title

Social Determinants of Health

Course Description

This course will examine the structural and social factors that impact health, the connection between these factors and health inequities, and promising interventions to address these social determinants of health. Instructor permission is required. Formerly PH 565, PH 655. This graduate course is cross listed with an undergraduate course (PH 4650). Credits will be awarded for only one of HS 4650, PH 4650, PH 565, PH 655 or PH 5650.

Equivalent Courses

PH565, PH655

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5700 Health Policy and Management

Course Info

Course Title

Health Policy and Management

Course Description

Emphasis on the application of administrative and organizational analytical perspectives to health and human service organizations. Concepts and perspectives from the governmental and public interest concerns will be applied. Formerly PH 6700.

Equivalent Courses

PA5600, PA569, PH569, PH6700

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5750 Global Health & Social Issues

Course Info

Course Title

Global Health and Social Issues

Course Description

Introduction to global health and social issues particularly in developing countries. Course examines the social, cultural and environmental context in which people live and how these forces influence health and development.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5850 Pop Health, Policy, Care

Course Info

Course Title

Population Health, Health Policy and Healthcare

Course Description

Population health, described as the health of groups of individuals within a community, city, county, state, or country, has been placed on the forefront of health care in the United States. PH 5750 course intends to enhance students' understanding of health issues faced by populations and collaborative efforts among public health, health care systems, and other organizations to improve health outcomes. Emphasis will be placed on understanding the continuum of care, policy synthesis, evidence-based care, population health research, and patient and community engagement.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 5900 Special Topics

Course Info

Course Title

Special Topics

Course Description

This course will cover advanced emerging and timely topics in public health for which an existing course does not exist. May be repeated for additional credit (as long as content is different when students repeats the course). Prerequisite(s): Program director permission.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

PH 5970 Independent Study

Course Info

Course Title

Public Health Independent Study

Course Description

Independent Study in a topic in Public Health under the guidance of a faculty member.Prerequisite(s):Instructor Permission

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	4

PH 5980 Interprofessional Education

Course Info

Course Description

This course aims to increase students’ awareness and application of interprofessional practice.

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
1

PH 5996 Public Health Capstone

Course Info

Course Title

Public Health Capstone

Course Description

Students will participate in a culminating capstone experience showcasing their knowledge of public health theory, principles of practice, research methods and data analysis. Through this experience, students will demonstrate leadership, teamwork, and creativity. Students will complete a defined portfolio showcasing their mastery of public health practice defined with their adviser and will participate in capstone seminars. Formerly PH 6996. Prerequisites: PH 5700, PH 5000, PH 5100, PH 5200, PH 6960, PH 5410, PH 5411, PH 5500, and PH 5600.

Equivalent Courses

PH690, PH6996

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
4

PH 6150 Quant/Qual Research Methods

Course Info

Course Title

Quantitative and Qualitative Research Methods

Course Description

This course is an introduction to the design and methodology of qualitative, quantitative, and mixed method research. Students will develop skills necessary to design their own research study and evaluate products of empirical research. Formerly PH 615.

Equivalent Courses

PH615

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 6250 Mechnsm/Chronic Infect Disease

Course Info

Course Title

Mechanisms of Chronic and Infectious Disease

Course Description

This course is designed to provide an overview of the major chronic and infectious diseases that affect the U.S. population. More specifically, the course will explore the distribution of, risk factors for and disparities of chronic infectious diseases. Finally, effective prevention strategies will be discussed. Formerly PH 625.

Prerequisite: PH 5500

Equivalent Courses

PH625

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 6450 Regression Modeling/PubHlth

Course Info

Course Title

Regression Modeling in Public Health

Course Description

This course will cover regression modeling, emphasizing public health applications. Linear and generalized linear (e.g., logistic, poisson) regression models will be covered, as well as techniques for non-independent data (GEE, random effects models). Model fit diagnostics and assumption checking will be emphasized throughout. The statistical software, R, will be used. Formerly PH 645. Prerequisite(s): (PH 5410 and PH 5411 or PH 5450 and PH 5451) or equivalent or instructor permission.

Equivalent Courses

PH645

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

4

PH 6850 Legal/Ethical Issues/Pub Hlth

Course Info

Course Title

Legal and Ethical Issues in Public Health

Course Description

This course examines contemporary legal and ethical issues in public health. Formerly PH 685.

Equivalent Courses

PH685

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

2

PH 6960 Public Health Practicum

Course Info

Course Title

Public Health Practicum

Course Description

The practicum provides the opportunity to work in an organization that addresses public health issues. Students will apply public health principles and theories learned and demonstrate their mastery of CEPH/ASPH public health competencies. The practicum enables students to bridge the gap between classroom learning in years one and two with public health practice in summer. Formerly PH 630. Prerequisites: PH 5000, PH 5100, PH 5200, (PH 5410 and PH 5411 or PH 5450 and PH 5451), and PH 5500.

Equivalent Courses

PH630

College/School

School of Health Sciences

Department

Public and Environ Wellness

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PHT 5150 Physics Teaching:Exp and Equip

Course Info

Course Title

Physics Teaching: Experiments and Equipment

Course Description

Secondary physics and physical science teachers will design, perform and critique laboratory and demonstration experiments selected to match individual teaching situations and available equipment. Related physical principles, potential open-ended questions and sources of experimental difficulties will be viewed. Formerly PHT 515.

Equivalent Courses

PHT515

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

2

PHY 5040 Advanced Astrophysics I

Course Info

Course Title

Advanced Astrophysics I

Course Description

Observational properties of stars, galactic structure, stellar dynamics. Permission of instructor is required. Formerly PHY 504.

Equivalent Courses

PHY504

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5050 Advanced Astrophysics II

Course Info

Course Title

Advanced Astrophysics II

Course Description

Stellar structure and evolution, interstellar medium, galaxies, cosmology. Formerly PHY 505. Recommended prerequisite: PHY 5040.

Equivalent Courses

PHY505

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5220 Stats Thermodynamics

Course Info

Course Title

Statistical Thermodynamics

Course Description

Review of classical thermodynamics. Kinetic theory of gases, transport phenomena, classical and quantum statistics, partition functions and thermodynamic properties, ensembles and fluctuations. Formerly PHY 522. Recommended prerequisite: PHY 5520.

Equivalent Courses

PHY522

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5250 Radiation Biophysics

Course Info

Course Title

Radiation Biophysics

Course Description

The study of molecular and cellular radiation biology, theories of biological effects of radiation, repair of radiation damage, effects of irradiation on human tissue and organs and radio-sensitivity of human tumors. Formerly PHY 525. Prerequisite: Permission of instructor.

Equivalent Courses

PHY525

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5300 Bioelectric Phenomena

Course Info

Course Title

Bioelectric Phenomena

Course Description

The physics of bioelectric phenomena: the electrical behavior of nerves, skeletal muscle and the heart; the electrocardiogram and the electroencephalogram; and biomedical devices such as the pacemaker. Completion of PHY 3720 is RECOMMENDED. Formerly PHY 530.

Equivalent Courses

PHY530

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5350 Modeling Complex Systems

Course Info

Course Title

Modeling Complex Systems

Course Description

Methods of mathematical physics and nonlinear dynamics will be applied to investigate problems in physical, chemical, and biological systems. Examples studies will include population dynamics, epidemiology, instabilities and formation of patterns, diffusion phenomena (cell migration), and growth of brain tumors. Formerly PHY 535.

Equivalent Courses

PHY535

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5420 Advanced Electronics

Course Info

Course Title

Advanced Electronics

Course Description

Selected topics in the analysis and design of electronic circuits. Formerly PHY 542. Recommended prerequisite: PHY 3310.

Equivalent Courses

PHY542

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5450 Physics of NMR and MRI

Course Info

Course Title

Physics of NMR and MRI

Course Description

The physics of nuclear magnetic resonance (NMR), the instrumentation and experimental aspects of the technology, NMR spectroscopy, and quantitative magnetic resonance imaging (MRI). Student must have permission of instructor.

Equivalent Courses

PHY545

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PHY 5480 Advanced Electronics Lab

Course Info

Course Title

Advanced Electronics Laboratory

Course Description

To accompany PHY 542. Recommended prerequisite: PHY 347.

Equivalent Courses

PHY548

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

2

PHY 5520 Theoretical Physics

Course Info

Course Title

Theoretical Physics

Course Description

Topics and techniques common to graduate physics courses: partial differential equations, eigenvalue problems, special functions, spherical harmonics, Green's functions, variational methods, linear vector spaces, tensors. Formerly PHY 552. Recommended prerequisites: PHY 3610, PHY 3710, and PHY 3810.

Equivalent Courses

PHY552

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5530 Numerical Methods in Theo Phy

Course Info

Course Title

Numerical Methods in Theoretical Physics

Course Description

Numerical differentiation and integration. Numerical solution of linear, transcendental and differential equations. Numerical modeling and data analysis. Accuracy and stability of algorithms. Knowledge of a scientific programming language (FORTRAN preferred). Formerly PHY 553. Recommended prerequisite: PHY 5520.

Equivalent Courses

PHY553

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5620 Mechanics II

Course Info

Course Title

Mechanics II

Course Description

Lagrange's and Hamilton's equations of motion, rotation of rigid bodies, coupled oscillations, nonlinear dynamics. Formerly PHY 562. Recommended prerequisites: PHY 3510 and PHY 3610.

Equivalent Courses

PHY562

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5650 Phys Continuous Media

Course Info

Course Title

Physics of Continuous Media

Course Description

Introduction to elasticity and fluid mechanics, including tensors, stress, strain, flow, conservation principles, constitutive equations, elasticity and fluid mechanics. Formerly PHY 565. Recommended prerequisites: PHY 3610 and MTH 4552.

Equivalent Courses

PHY565

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5720 Quantum Mechanics I

Course Info

Course Title

Quantum Mechanics I

Course Description

Principles of non-relativistic quantum mechanics, Schrodinger wave equation, expectation values of energy, position, momentum and angular-momentum operators, spin, perturbation theory, identical particles. With applications to atomic systems. PHY 5720 is cross-listed with an undergraduate course, PHY 4720. Students cannot receive credit for both courses.

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PHY 5730 Nuclear Physics

Course Info

Course Title

Nuclear Physics

Course Description

Nuclear properties, forces, models, decays and reactions; nuclear energy, elementary particles. Formerly PHY 573. Recommended prerequisites: PHY 3720 and PHY 4720.

Equivalent Courses

PHY573

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5740 Intro To Solid State Phy

Course Info

Course Title

Introduction to Solid-State Physics

Course Description

Introduction to the thermal, electrical and magnetic properties of solids, including periodic structure, lattice dynamics, electron interactions and behavior, transport properties, Fermi surface, optical behavior and superconductivity. Emphasizes current experimental techniques. Formerly PHY 574. Recommended prerequisites: PHY 3710 or PHY 4720.

Equivalent Courses

PHY574

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5830 Classical Electrodynamics

Course Info

Course Title

Classical Electrodynamics

Course Description

Review of electrostatics, magnetostatics, Maxwell's equations and electromagnetic waves. Relativistic description of particles, fields and interactions. Radiation by moving charges, bremsstrahlung, radiation damping, self fields. Formerly PHY 583. Recommended prerequisites: PHY 3720 or PHY 4720 or PHY 5520.

Equivalent Courses

PHY583

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 5900 Selected Topics in Physics

Course Info

Course Title
Selected Topics in Physics

Course Description
Advanced topic in a specialized area of physics. The topics may vary. May be repeated for additional credit. Student must have permission of department.

College/School
College of Arts and Sciences

Department
Physics

Credits

Credit Hours

Units:	Credit Hours Max:
1	5

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

PHY 5920 Directed Readings in Physics

Course Info

Course Title
Directed Reading in Physics

Course Description
Term paper based on library research of a current research-oriented physics topic. May be taken more than once. Student must have permission of department.

College/School
College of Arts and Sciences

Department
Physics

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

PHY 6150 Ethics & Law in Sci. & Engine

Course Info

Course Title

Ethics and Law in Science and Engineering

Course Description

The purpose of this course is to provide graduate students in the sciences and engineering with an awareness of the current activities and discussions related to the legal and ethical conduct of modern-day science. This course will consist of lectures and seminars which will examine a number of specific topic areas, such as constitutional rights and protections, the U.S. and Michigan court systems, fundamental theories of contract, rights and responsibilities, conflict of interest (real and apparent), scientific fraud and misconduct, and patent rights. Formerly PHY 615.

Equivalent Courses

PHY615

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 6310 Biomechanics

Course Info

Course Title

Biomechanics

Course Description

This course will include topics in statics, kinematics and dynamics, elastic and viscoelastic theory as applied to the physical properties of biological materials and body motion, as well as fluid properties in the mechanics of the circulatory system. Formerly PHY 631.

Prerequisite: permission of instructor.

Equivalent Courses

PHY631

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 6320 Intro To Lasers & Masers

Course Info

Course Title

Introduction to Lasers and Masers

Course Description

Theory and principles of quantum electronics as applied to lasers and masers, properties of laser light, selected applications. Formerly PHY 632. Recommended prerequisite: PHY 3710.

Equivalent Courses

PHY632

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 6650 Physics Of Fluids In the Body

Course Info

Course Title

Physics of Fluids in the Body

Course Description

Newtonian fluid flow; respiration, micturition and non-Newtonian fluid, mucous and blood, circulation; fluid flow in elastic tubes, blood, CSF, lymph. Formerly PHY 665. Prerequisite: Permission of instructor.

Equivalent Courses

PHY665

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 6730 Quantum Mechanics

Course Info

Course Title

Quantum Mechanics

Course Description

Development of formal approach to quantum mechanics, selected illustrations and applications. Formerly PHY 673. Recommended prerequisites: PHY 5520 and PHY 5620.

Equivalent Courses

PHY673

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PHY 6740 Advanced Quantum Mechanics

Course Info

Course Title

Advanced Quantum Mechanics

Course Description

Continuation of PHY 6730. Additional illustrations and applications of formal quantum mechanics. Formerly PHY 674. Prerequisite: PHY 6730.

Equivalent Courses

PHY674

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 6900 Currnt Topic Medical Phy

Course Info

Course Title

Current Topics in Medical Physics

Course Description

Lectures on current areas of research in medical physics. Student must be admitted to Ph.D. program or have permission of instructor. Formerly PHY 610.

Equivalent Courses

PHY610

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

PHY 6940 Seminar

Course Info

Course Title

Seminar

Course Description

Student must have permission of instructor. Formerly PHY 600.

Equivalent Courses

PHY600

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code
RP

Repeat Limit
2

PHY 6996 Master of Science Research

Course Info

Course Title

Master of Science Research

Course Description

Graded Satisfactory/Unsatisfactory. May be repeated for additional credit. Formerly PHY 690.

Equivalent Courses

PHY690

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:	Credit Hours
1	Max: 12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	12

PHY 7210 Inter of Non-Ionizing Radiat

Course Info

Course Title

Interaction of Non-Ionizing Radiation with Tissue

Course Description

Review of electromagnetic theory, dielectric properties of tissue, piezoelectric effects, streaming potentials, dielectrophoresis, passive and active transport, cell-field interactions; observed effects in development, behavior and tissue repair; geomagnetic coupling. Interactions of ultrasound and lasers with cells. Student must be admitted to Ph.D. program or have permission of instructor. Formerly PHY 721.

Equivalent Courses

PHY721

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:
4

PHY 7260 Advanced Radiatn Biophysics

Course Info

Course Title

Advanced Radiation Biophysics

Course Description

In depth study of selected topics in Radiation Biophysics. Areas such as target theory, cell cycle distribution influences, molecular and cellular repair theories and concepts of micro dosimetry will be covered. Formerly PHY 726. Recommended prerequisites: PHY 5250. Permission of instructor.

Equivalent Courses

PHY726

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

4

PHY 8999 Doctoral Research

Course Info

Course Title

Doctoral Research

Course Description

Graded Satisfactory/Unsatisfactory. May be repeated for additional credit. Formerly PHY 790.

Equivalent Courses

PHY790

College/School

College of Arts and Sciences

Department

Physics

Credits

Credit Hours

Units:

1

Credit Hours

Max:

12

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

25

Maximum Hours

98

POM 5210 Operations Management

Course Info

Course Title

Operations Management

Course Description

Study of operations of manufacturing and service organizations. Introduction to operational design and control issues such as forecasting, capacity planning, facility location and layout, production control, material requirements planning, scheduling and quality assurance. Includes international, legal and ethical aspects, as well as computer exercises. Formerly POM 521. Prerequisite: QMM 5100 or have taken a course in statistics.

Equivalent Courses

POM521

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

POM 5410 Operations Analytics

Course Info

Course Title

Operations Analytics

Course Description

This course focuses on improving existing operations within an organization through computer simulation modeling of business processes using a variety of software tools and techniques including discrete event, Monte-Carlo, and systems dynamics. Topics include modeling, input and output analysis and managing simulation projects. Students will become familiar with both the methodology and application of computer simulation modeling within the context of managerial decision making under uncertainty and business process design. Prerequisite: QMM 5100

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6350 Management/Service Operations

Course Info

Course Title

Management of Service Operations

Course Description

This course seeks to improve the student's understanding of the nature of organizations that produce services in addition to, and instead of, goods. It explores some of the operating and other management issues, problems, and decisions found in such organizations. The course takes a general management viewpoint with a bias towards operations, marketing, and human resource management. It establishes a framework for the evaluation of existing and new service concepts and examines similarities and differences between management in the service and manufacturing sectors. It exposes students to important service concepts and practices and makes us aware of problems, issues, and opportunities in the service sector. Formerly POM 635. Prerequisite: POM 5210 or have completed a course in operations management.

Equivalent Courses

POM635

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6400 Process Management

Course Info

Course Title

Process Management

Course Description

This course introduces quality management as it relates to the operations management field. Specific concepts, decisions, and quantitative techniques commonly encountered in quality management are highlighted. How quality management can contribute to the achievement of organizational goals and objectives is also emphasized. Course topics include: the evolution of quality management, quality basics, quality gurus, quality certification and awards, an introduction to the techniques of quality control, and an in-depth examination of total quality management. Instruction of the topics covered will utilize several pedagogical devices, including assignments, case discussions, and self-review questions and problems. Formerly POM 640. Prerequisite: POM 5210 or have completed a course in operations management.

Equivalent Courses

POM640

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6420 Supply Chain Management

Course Info

Course Title

Supply Chain Management

Course Description

This course will examine several issues on effective management of today's supply chains. They include planning and design for supply chains, mass customization and postponement, distribution networks, management of supplier relationships, benefits/challenges of global sourcing, management of supply chain risks, integration and evaluation of supply chains. Formerly POM 642. Prerequisite: POM 5210 or have completed a course in operations management.

Equivalent Courses

POM642

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6430 Operations Planning & Control

Course Info

Course Title

Operations Planning and Control

Course Description

Studies the economic conversion of inputs into goods and services for both manufacturing and service organizations. Managerial and technical aspects of planning and controlling resources within a transformation system are examined including demand management, lean manufacturing, master production scheduling, materials requirements planning, capacity planning and inventory control. Formerly POM 643. Prerequisite: POM 5210 or have taken a course in operations management.

Equivalent Courses

POM641, POM643

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6450 Cases In Operations Mgt

Course Info

Course Title

Cases in Operations Management

Course Description

Analysis of diverse cases from the perspective of the operations function in service and manufacturing organizations. Cases are descriptive of actual operating situations. Covers situations which lend themselves to analytical and computer techniques, as well as problems involving subjective judgment and creativity in translating theory into practice. Prerequisite: POM 5210

Equivalent Courses

POM645

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6480 Project Management

Course Info

Course Title

Project Management

Course Description

Project management topics examined will include project selection, project plan elements including statements of work, scope statements, budgets, alternative organizational structures, work breakdown structures, the role of the project manager, leadership styles, teamwork approaches, conflict resolution, schedule development, and risk management. Project monitoring and control and project termination will be investigated as well. Formerly POM 648. Prerequisite: POM 5210 or have completed a course in operations management.

Equivalent Courses

POM648

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

POM 6900 Special Topics: POM

Course Info

Course Title

Special Topics in Production and Operations Management

Course Description

An advanced course involving study of current research issues and recent developments in Production and Operations Management. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of 6 credits. Same topic cannot be repeated. Formerly POM 680. Prerequisite: POM 5210 or its equivalent.

Equivalent Courses

POM680

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
3	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	9

POM 6970 Independent Study: POM

Course Info

Course Title

Independent Study in Production and Operations Management

Course Description

Independent individual research on a topic chosen by the student. Written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly POM 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

POM690

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:	Credit Hours Max:
1	3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

PSY 5001 Adv Meth Psy/Behav Res I

Course Info

Course Title

Advanced Methods for Psychological and Behavioral Research I

Course Description

Advanced methods used in experimental psychological and behavioral science research. Topics include variable definition and measurement, surveying and sampling, internal and external validity, as well as the principles of ethical research. Designs covered include between and within group designs, observational, applied experimental, non-experimental, and quasi-experimental. Formerly PSY 501.

Equivalent Courses

PSY501

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5002 Adv Meth Psy/Behav Res II

Course Info

Course Title

Advanced Methods for Psychological and Behavioral Research II

Course Description

Advanced methods used in psychological and behavioral science research. Topics include power and validity, parametrics and non-parametrics, interpreting and reporting results, proposal design, scientific presentation and review. Designs covered include univariate and multivariate, single case and small N designs and qualitative research. Formerly PSY 502. Prerequisite: PSY 5001.

Equivalent Courses

PSY502

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5101 Adv Stats for Psy/Behav Res I

Course Info

Course Title

Advanced Statistics for Psychological and Behavioral Research I

Course Description

Advanced statistical techniques for analyses of quantitative psychological and behavioral science data. Topics investigated include normality check, reliability analysis, multiple regression, and factor analysis. Students are expected to use statistical software, take an active role in data exploration, and present their findings, discussing results in the context of theoretical and empirical literature. Formerly PSY 511.

Equivalent Courses

PSY511

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PSY 5102 Adv Stats for Psy/Behav Res II

Course Info

Course Title

Advanced Statistics for Psychological and Behavioral Research II

Course Description

Advanced statistical techniques for analyses of longitudinal and cross-sectional, parametric and non-parametric and qualitative psychological and behavioral science data. Topics investigated include ANCOVA, repeated-measures ANOVA, mixed design ANOVA, MANOVA, and path analysis. Students are expected to use statistical software, take an active role in data exploration, and present their findings, discussing results in the context of theoretical and empirical literature. Formerly PSY 512. Prerequisite: PSY 5101.

Equivalent Courses

PSY512

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PSY 5103 Introduction to SEM

Course Info

Course Title

Introduction to Structural Equation Modeling (SEM)

Course Description

Introduces principal statistical procedures to analyze and interpret data via systems of equations in behavioral science research. Prerequisites: Student must have permission of instructor.

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

PSY 5104 Introduction to MLM

Course Info

Course Title

Introduction to Multilevel Modeling (MLM)

Course Description

Introduces principal statistical procedures needed to analyze and interpret clustered and/or longitudinal data in behavioral science research. Prerequisites: Student must have permission of instructor.

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

PSY 5201 Social Cog & Interper Process

Course Info

Course Title

Social Cognition and Interpersonal Processes

Course Description

Theory and research related to social cognitive phenomena such as causal reasoning, attitude change, counter-factual thinking, and emotive appraisal, as well as their relationship to interpersonal processes including attraction, conformity, social influence, social loafing and social influence. Formerly PSY 631.

Equivalent Courses

PSY631

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5202 Self & Interper Relationships

Course Info

Course Title

Self and Interpersonal Relationships

Course Description

Theory and research focused on the self and interpersonal relationships. Topics relevant to the self include self-concept, self-esteem, self-regulation, gender identity, and racial identity; topics relevant to interpersonal relationships include romantic relationships, peer relationships, family relationships, groups, and attachment process. Formerly PSY 632.

Equivalent Courses

PSY632

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5203 Culture and Trauma

Course Info

Course Title

Culture and Trauma

Course Description

Theoretical perspectives and empirical research on cross-cultural similarities and differences in trauma experiences. Topics include the universal and culture-specific aspects of trauma, coping strategies, social support, PTSD, and post-traumatic growth. Formerly PSY 653.

Equivalent Courses

PSY653

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5204 Emotion and Motivation

Course Info

Course Title

Emotion and Motivation

Course Description

Major theories, research findings, methods and applications reflecting diverse perspectives to the issue of human and non-human motivation, including social and behavioral as well as biological and neurophysiological approaches. Topics include social function, health, adjustment, feeding, and reproduction. Formerly PSY 654.

Equivalent Courses

PSY654

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5205 Individuals and Communities

Course Info

Course Title

Individuals and Communities

Course Description

Relationship of the individual to the community including the theories, principles, values and research methods of community psychology. Formerly PSY 634.

Equivalent Courses

PSY634

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5206 Proseminar Soc/Behav Process

Course Info

Course Title

Proseminar in Social and Behavioral Processes

Course Description

Concepts, issues, areas of research, and research methods found in the psychological science of social and behavioral processes. Topics include social influence, persuasion, personality traits, intelligence, relationships, sense of community, public health outcomes, cultural comparisons, gender. Formerly PSY 531.

Equivalent Courses

PSY531

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
16

Maximum Hours
99

PSY 5207 Persnalty, Ind Diff & Intellig

Course Info

Course Title

Personality, Individual Differences, and Intelligence

Course Description

Theoretical perspectives and empirical research on individual differences in personality, including the causes and consequences of individual differences in the major dimensions of personality, as well as the causes, consequences, and assessment of individual differences in intelligence. Formerly PSY 655.

Equivalent Courses

PSY655

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5208 Intergroup Relations

Course Info

Course Title

Intergroup Relations

Course Description

Advanced seminar examining the psychology of intergroup relations. Includes introduction to contemporary and historical theoretical perspectives on intergroup psychology. Emphasis on causes and consequences of stereotyping, prejudice and discrimination. PSY 5208 is cross-listed with PSY 4982. Students can not receive credit for both courses. Prerequisite(s): PSY 250/2500 and PSY 251/2510 with a grade of 2.0 or higher.

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5301 Animal Cognition

Course Info

Course Title

Animal Cognition

Course Description

Theories and research related to classic and current studies of non-human cognition. Topics include theory of mind, causal reasoning, memory, metacognition, self-recognition, tool use, planning, cooperation, and social learning. Research discussed covers a range of species including birds, cetaceans, carnivores and primates. Formerly PSY 622.

Equivalent Courses

PSY622

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5302 Evol Psych & Animal Behavior

Course Info

Course Title

Evolutionary Psychology and Animal Behavior

Course Description

Key concepts, questions, and research issues related to the evolution of the mechanisms of mind and behavior in humans and non-humans. Topics investigated include mating, parenting, social exchange, and violence. Formerly PSY 652.

Equivalent Courses

PSY652

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5303 Hormones & Human Behavior

Course Info

Course Title

Hormones and Human Behavior

Course Description

Discusses impact that hormonal profiles have on behavior and how these influences may be adaptive. Topics will include menstrual cycle effects, human mating, parenting, preferences for cues of kinship, competition, and psychosexual differentiation of behavior. Formerly PSY 657.

Equivalent Courses

PSY657

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5304 Psychology of Human Sexuality

Course Info

Course Title

Psychology of Human Sexuality

Course Description

Provides an in-depth account of the current research on the psychology of human sexual behavior. General topics include sexual behavior, risk-taking, theories of sexual orientation, intimacy, and paraphilias. Students will learn to critically examine current findings and theories on human sexuality from a psychological perspective. Formerly PSY 658.

Equivalent Courses

PSY658

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5305 Curr Dir-Evolutionary Psych

Course Info

Course Title

Current Directions in Evolutionary Psychology

Course Description

Overview of historical and modern research and theory addressing one or more current directions in evolutionary psychological science. Key concepts, issues, and areas of research will be introduced. Formerly PSY 659.

Equivalent Courses

PSY659

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
12

PSY 5401 Bio Factors of Hlth & Wellness

Course Info

Course Title

Biopsychosocial Factors of Health and Wellness

Course Description

The interactions among biological, psychological, and sociocultural predictors of health and wellness. Topics include the application of theories of behavior change to health habits; the role of personality, emotions, stress, and coping on health and adjustment to illness; and health disparities associated with ethnicity, class, gender, and age. Formerly PSY 651.

Equivalent Courses

PSY651

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5402 Health Behavior Change

Course Info

Course Title

Health Behavior Change

Course Description

Provides an understanding of behavior modification within the context of health promotion. Explores behavior change theories, principles, and predictive models of change and apply principles to the modification of health behaviors on an individual, group, and community level. Formerly PSY 661.

Equivalent Courses

PSY661

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5408 Analysis of Psychopathology

Course Info

Course Title

Analysis of Psychopathology

Course Description

Theoretical and empirical contributions to the understanding of the etiology and maintenance of abnormal behavior. Topics include empirical methods for understanding the processes and mechanisms involved in various deviations from healthy behavior. Formerly PSY 635.

Equivalent Courses

PSY635

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5501 Life-span Devel Theories & Res

Course Info

Course Title

Life-span Development Theories and Research

Course Description

Empirical issues and theoretical approaches relevant to life-span development, emphasizing historical and contemporary perspectives. Theories include Piaget's theory of cognitive development, information-processing theories, domain-specific theories of cognitive development, attachment theory, dynamic systems theory, ecological theory, socioemotional selectivity theory, resilient aging, and functional neuroaging. Formerly PSY 633.

Equivalent Courses

PSY633

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5502 Seminar-Cognitive Development

Course Info

Course Title

Seminar in Cognitive Development

Course Description

Provides an understanding of cognitive development across the life span. Focuses on a broad range of empirical and theoretical analyses encompassing topics such as memory, perception, conceptual development, problem-solving, cultural influences, and atypical development. Formerly PSY 662.

Equivalent Courses

PSY662

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5601 Cog Psy: Theory & Application

Course Info

Course Title

Cognitive Psychology: Theory and Application

Course Description

Theories and research related to classic and current studies of human cognition. Topics include theory of mind, causal reasoning, memory, metacognition, self-recognition, planning, and social learning. Focus on how humans acquire, modify, store, and recall information about the environment or social partners to make adaptive decisions. PSY 5601 is cross-listed with an undergraduate course, PSY 4983. Student cannot receive credit for both courses. Prerequisite(s): Permission of instructor.

Equivalent Courses

PSY621

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

PSY 5602 Conditioning, Learning, Memory

Course Info

Course Title

Conditioning, Learning and Memory

Course Description

Major theories of human and animal learning, including classical and instrumental conditioning paradigms, cognitive and observational learning theories, and models of memory. Content is discussed in terms of both theory and practical applications. Formerly PSY 625.

Equivalent Courses

PSY625

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5603 Biopsychosocial Mediation of C

Course Info

Course Title

Biopsychosocial Mediation of Creativity

Course Description

Manner in which creativity is affected by culture, society, personality, cognition, and biology. Contemporary theories about creativity and the research supporting those theories are discussed and evaluated with the goal of empirically examining creativity and/or applying that knowledge to enhance creativity. Formerly PSY 656.

Equivalent Courses

PSY656

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5604 Human Vision

Course Info

Course Title

Human Vision

Course Description

In-depth study of the behavioral science of human vision. Topics include signal detection theory, speed of perceptual processes, color vision, form perception, as well as cognitive and unconscious influences on complex visual processes. Formerly PSY 623.

Equivalent Courses

PSY623

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5605 Neuroanat/Brain Development

Course Info

Course Title

Neuroanatomy, Brain Development and Neural

Course Description

Biological foundation of behavior and intensive introduction to neuroscience. Topics include neural signaling, neuroanatomy, brain development, and neural plasticity, as well as neuroscience perspectives on language, sleep, emotion, sexual behavior, and memory. Formerly PSY 624.

Equivalent Courses

PSY624

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PSY 5606 Proseminar Biol/Basic Process

Course Info

Course Title

Proseminar in Biological and Basis Processes

Course Description

Concepts, issues, areas of research, and research methods found in the psychological science of biological and basic processes. Topics include brain function, perception, cognition, conditioning, sexual selection, and motivation. Formerly PSY 521.

Equivalent Courses

PSY521

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5607 Adv Tops/Bio & Basic Processes

Course Info

Course Title

Advanced Topics in Biological and Basic Processes

Course Description

Intensive examination of advanced theoretical and research issues related to biological and basic processes. Student must have permission of instructor. Formerly PSY 721.

Equivalent Courses

PSY721

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

PSY 5990 Adv Top in Meth Psy/Behav Dsn

Course Info

Course Title

Advanced Topics in Methods of Psychological and Behavioral Research Design

Course Description

Intensive examination of design and methodological issues specific to advanced research problems in psychological science. May be repeated for additional credits, but no more than 12 credits total toward the degree. Formerly PSY 701.Prerequisite: permission of instructor.

Equivalent Courses

PSY701

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

PSY 5991 Adv Topics in Psych Statistics

Course Info

Course Title

Advanced Topics in Statistics for Psychological and Behavioral Research

Course Description

Intensive examination of concepts and computations associated with statistical analysis of research in psychological science. May include SEM, Advanced Multivariate Regression, Factor Analysis, Path Analysis, Non-Parametric Tests, etc. May be repeated for additional credits, but no more than 12 credits total toward the degree. Formerly PSY 711. Prerequisite: permission of instructor.

Equivalent Courses

PSY711

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

PSY 5992 Adv Top in Soc/Behav Processes

Course Info

Course Title

Advanced Topics in Social and Behavioral Processes

Course Description

Intensive examination of advanced theoretical and research issues related to social and behavioral processes. May be repeated for additional credits, but no more than 12 credits total toward the degree. Formerly PSY 731. Prerequisite: permission of instructor.

Equivalent Courses

PSY731

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

PSY 5993 Spec Topics-Behavioral Health

Course Info

Course Title
Special Topics in Behavioral Health

Course Description
Examination of a special topic in Behavioral Health from a biopsychosocial approach. Topics may include issues such as emotion regulation, stress, obesity, cardiovascular health, substance abuse, and violence. Experimental and applied research methodology will be highlighted to complement content knowledge on the identified topic. Formerly PSY 660.

Equivalent Courses
PSY660

College/School
College of Arts and Sciences

Department
Psychology

Credits
Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit
RP	2

PSY 6001 Instruction/Psychology Science

Course Info

Course Title
Instruction in Psychological Science

Course Description
Basic components of successful teaching, with opportunities to develop pedagogy and practice teaching skills. Skills include developing a syllabus, methods of presenting content and enhancing student learning, classroom management and assessing student performance. Formerly PSY 595.

Equivalent Courses
PSY595

College/School
College of Arts and Sciences

Department
Psychology

Credits
Credit Hours

Units:
4

PSY 6970 Independent Study

Course Info

Course Title
Independent Study

Course Description
A program of directed study under the guidance of a faculty adviser. The study plan is subject to final approval by the departmental graduate committee. Formerly PSY 694.

Equivalent Courses
PSY694

College/School
College of Arts and Sciences

Department
Psychology

Credits
Credit Hours

Units:	Credit Hours
1	Max: 4

PSY 6996 Master of Science Project

Course Info

Course Title
Master of Science Project

Course Description
Project approved by Master's Committee. Formerly PSY 690.Prerequisite: permission of Master's Committee.

Equivalent Courses
PSY690

College/School
College of Arts and Sciences

Department
Psychology

Credits
Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	2	4
RP		

PSY 6998 Master of Science Thesis

Course Info

Course Title

Master of Science Thesis

Course Description

Research approved by Advising or Master's Committee. Formerly PSY 691.

Equivalent Courses

PSY691

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	8	99

PSY 8999 Doctoral Dissertation
Research

Course Info

Course Title

Doctoral Dissertation Research

Course Description

Research approved by Dissertation Committee. Formerly PSY 790.

Equivalent Courses

PSY790

College/School

College of Arts and Sciences

Department

Psychology

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	25	99

PT 6010P Clin Orthopedic Internship I

Course Info

Course Title

Clinical Orthopedic Internship I

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

PT 6020P Clin Orthopedic Internship II

Course Info

Course Title

Clinical Orthopedic Internship II

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

PT 6110P Applied Movement Sciences

Course Info

Course Title

Applied Movement Sciences

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

PT 6511 Professional Issues I

Course Info

Course Title

Professional Issues I

Course Description

Orientation to the profession of physical therapy. Characteristics and history of the profession, professional expectations, professional values, professional standards, ethics and the roles of practitioners will be discussed. Formerly PT 531. Prerequisite: Student must be admitted to the DPT program.

Equivalent Courses

PT531

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 6517 Functional Anatomy

Course Info

Course Title

Functional Anatomy

Course Description

Study of anatomical, structural and functional properties of human muscular, skeletal and connective tissue structures. Normal human movement is emphasized in order to develop a base of knowledge for clinical examination and intervention. Laboratories focus on palpating surface structures used during examination and intervention. Elementary analysis of nonpathological gait is included. Formerly PT 517. Prerequisite: Student must be admitted to the DPT program.

Equivalent Courses

PT517

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 6519 Clinical Medicine

Course Info

Course Title

Clinical Medicine

Course Description

In this course physical therapy students will learn about the diagnosis and treatment of conditions commonly encountered by physical therapists in clinical practice including the integumentary, cardiovascular, pulmonary, endocrine, genitourinary, musculoskeletal and neurological systems. As course in human pathology is required to be taken prior to or concurrently with this course. Formerly PT 519. Prerequisite: Student must be admitted to the DPT program.

Equivalent Courses

PT519

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 6615 Gross Human Anatomy for PT

Course Info

Course Title

Gross Human Anatomy for Physical Therapy

Course Description

Lecture and dissection laboratory for the study of human body systems with an emphasis on the neuromusculoskeletal system. The clinical significance for understanding human anatomy for effective physical therapy practice will be discussed. Prerequisite: Student must be admitted to a DPT graduate program.

Equivalent Courses

PT515

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 6740 Movement Science I

Course Info

Course Title

Movement Science I (Biomechanics)

Course Description

This foundational course focuses on therapeutic effects of various forms of movement, and understanding rationale for therapeutic exercise prescription based on musculoskeletal injury, deficits, and physiological time frames for tissue healing. Applying principles of therapeutic intervention to a variety of patients will be emphasized. Formerly PT 540.Prerequisites: PT 6615 and PT 6517.

Equivalent Courses

PT540

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 6751 Clinical Exam & Evaluation I

Course Info

Course Title

Clinical Examination and Evaluation I

Course Description

This foundational course focuses on basic clinical examination and evaluation skills. Examination is focused on patient history taking, systems review and test and measures including: posture, range of motion and goniometry, manual muscle testing, special tests, neurologic and vascular testing, gait, and palpation. Skills of evaluation, diagnosis and prognosis are developed. Formerly PT 551.Prerequisites: PT 6615, PT 6517, PT 6519, and PT 6511.

Equivalent Courses

PT551

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PT 6756 Patient Management

Course Info

Course Title

Patient Management

Course Description

Principles and skills of patient management including the patient management model, medical records and documentation, therapeutic massage, mobility, transfers and gait. Case studies and patient problems focus on understanding the role of the physical therapist in acute care, lab values, tubes and lines, and emergency situations. Formerly PT 556.Prerequisites: PT 6615, PT 6517, PT 6519, and PT 6511.

Equivalent Courses

PT556

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 6816 Neuroanatomy for PT

Course Info

Course Title

Neuroanatomy for Physical Therapy

Course Description

Lecture and laboratory related to the morphology, development, function and integration within the neurological system. The clinical significance of neurological lesions to physical therapy practice will be discussed. Formerly PT 516. Prerequisite: Student must be admitted to the Doctor of Physical Therapy program.

Equivalent Courses

PT516

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 6881 Critical Inquiry I

Course Info

Course Title

Critical Inquiry I

Course Description

This introductory course in critical inquiry will introduce students to evidence-based practice, research principles and the research process, with an emphasis on physical therapy clinical research. Students will learn how to retrieve and critically appraise clinical studies in preparation for both evidence-based clinical practice and for clinical research. Student must be admitted to the DPT program.

Equivalent Courses

PT597

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 6980 Evidence-Informed Practice

Course Info

Course Title

Foundations of Evidence-Informed Clinical Practice

Course Description

This course will provide students with a foundational knowledge of research principles and the research process in preparation for evidence-informed clinical practice, and physical therapy clinical research. In preparation for clinical practice and research, the process of searching, retrieving and critically appraising research articles will be addressed. Additionally, students will be exposed to and apply knowledge related to the research proposal; statistical tests and interpretation; the IRB application; and the grant application process. Must be admitted to DPT program.

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PT 7140 Pharmacology/Physical Therapy

Course Info

Course Title

Pharmacology for Physical Therapy

Course Description

This course is an introduction of pharmacology and to pharmacology in rehabilitation. The principles of pharmacology (including drug nomenclature, classification, and pharmacokinetics) will be introduced. Typical agents, adverse effects and specific physical therapy concerns are covered for the various classes of medication. Formerly PT 514.

Equivalent Courses

PT514

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 7151 Clinical Ed Experience I

Course Info

Course Title

Full-time Clinical Education Experience

Course Description

This course consists of seminars, a peer-mentoring experience, and a 4-week full-time clinical education experience in a clinical setting. Students learn about the goals of clinical education, policies and procedures, professional practice issues and student responsibilities. During the clinical education experience, students engage in clinical practice under the supervision of licensed physical therapists. Formerly PT 681. Prerequisite: Successful completion of all pre-clinical courses is required for registration in this course.

Equivalent Courses

PT681

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 7241 Clinical Neuroscience

Course Info

Course Title

Clinical Neuroscience

Course Description

This course will emphasize the neural, physical and behavioral aspects of motor control and motor learning as well as the correlation of neurophysiology/neuroanatomy, and neuroscience with clinical practice to aid in understanding the principles of examining and evaluating the intact and dysfunctioning nervous system and formulating foundations for therapeutic intervention. Formerly PT 641. Prerequisites: PT 6816 and PT 6519. Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT641

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 7271 Lifespan Development I

Course Info

Course Title

Lifespan Development I

Course Description

An overview of developmental theories related to psychomotor, cognitive and social-emotional development across the lifespan. The application of developmental theories to understanding stages of normal growth and development in patients commonly treated by physical therapists. Formerly PT 627. Prerequisites: PT 6740, PT 6751, PT 6881, PT 7241. Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT627

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 7340 Psychosocial Asp/Patient Mgt

Course Info

Course Title

Psychosocial Aspects of Patient Management

Course Description

Study of factors affecting clients and their families/significant others, members of the medical team, and the role of the physical therapist in addressing these factors. Emphasis will be on the patient-therapist relationship and professional responsibilities in the health care setting. Formerly PT 734.Prerequisites: PT 7271 and PT 7151.

Equivalent Courses

PT734

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 7410 Clinical Neuro Exam and Eval

Course Info

Course Title

Clinical Neurological Examination & Evaluation

Course Description

This course will focus on the neurophysiology, neuroanatomy and neuroscience behind the workings of an intact and a dysfunctional nervous system affected by different neurological diagnoses. Emphasis will be placed on conducting a complete neurological examination, including movement analysis and its relationship to specific impairments, and interpreting the examination results for various different types of neurological disorders to formulate a foundation for therapeutic intervention. Concepts will be reinforced through the use of case studies and lab components including community participants with neurological diagnoses for experiential learning of examination and evaluation skills.Prerequisite: PT 6816

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PT 7411 Educational Interventions PT

Course Info

Course Title

Educational Interventions in Physical Therapy Practice

Course Description

This course focuses on the integration of educational interventions within the practice of physical therapy. Students will explore the application of learning theories in enhancing interactions between physical therapists and various stakeholders, including patients, caregivers, colleagues, legislators, and the broader community. Through practical strategies and theoretical frameworks, students will develop skills to improve patient education, foster collaborative teamwork, and advocate for policy changes in physical therapy practice.Prerequisites: PT 6751, PT 6756

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

PT 7420 Neurological Exam and Eval

Course Info

Course Title

Neurological Examination and Evaluation

Course Description

This course focuses on the skills needed to perform an examination and evaluation on individuals with neurological dysfunction. Emphasis will be placed on specific neurological testing and interpretation of the results. Movement analysis and its relationship to impairments will be discussed. Clinical decision-making will be reinforced with case studies. Formerly PT 642.Prerequisites: PT 6740, PT 6751, PT 6756, PT 6881, PT 7241. Student must be admitted to the DPT program or have departmental permission.

Equivalent Courses

PT642

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 7421 Neuromuscular Interventions I

Course Info

Course Title

Neuromuscular Interventions I

Course Description

This course emphasizes the development of problem solving and psychomotor skills necessary for successful management of the person with neurological dysfunction. Analysis of movement allows the student to determine client deficiencies and establish a plan of care. Students design a comprehensive plan of care and apply interventions targeted to the remediation of disabilities, functional limitations, and impairments in a safe manner. Formerly PT 742.Prerequisites: PT 7522, PT 7271, PT 7420, and PT 7520.

Equivalent Courses

PT742

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 7510 Modalities

Course Info

Course Title

Modalities and Electrotherapeutic Interventions

Course Description

In this course students will learn about physical agents (thermal, water, mechanical, light, and electrical modalities) commonly utilized by physical therapists in clinical settings. Students will understand screening, examination, evaluation, diagnosis, prognosis, plan of care, intervention, and outcome assessments related to the theory and application of physical agents. Formerly PT 651.Prerequisites: PT 6740, PT 6751, PT 6756, PT 6881, and PT 7241.

Equivalent Courses

PT651

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 7520 Fnds Therapeutic Exs Interver

Course Info

Course Title

Foundations of Therapeutic Exercise Interventions

Course Description

This foundational course provides a structured approach to prescribing physical movements or activities intended to enable a patient to remediate or prevent impairments of body functions and structures, enhance activities and participation, reduce risk, optimize overall health, and enhance fitness and well-being. Applying principles of therapeutic exercises to a variety of patients and practice settings will be emphasized. Formerly PT 652.Prerequisites: PT 6751, PT 6756, PT 6881, PT 7241, and PT 6740.

Equivalent Courses

PT652

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 7522 Clinical Exam & Evaluation II

Course Info

Course Title

Clinical Examination and Evaluation II

Course Description

This foundational course provides a structured approach to prescribing physical movements or activities intended to enable a patient to remediate or prevent impairments of body functions and structures, enhance activities and participation, reduce risk, optimize overall health, and enhance fitness and well-being. Applying principles of therapeutic exercises to a variety of patients and practice settings will be emphasized.Prerequisites: PT 6816, PT 6740, PT 6751, and PT 6881.

Equivalent Courses

PT552

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

PT 7532 Advanced Exercise Intervention

Course Info

Course Title

Advanced Therapeutic Exercise Interventions

Course Description

This course will build upon the fundamental concepts in PT 652. Detailed anatomy, joint and tissue biomechanics, and orthopedic pathology lectures will be provided. Clinical decision making regarding exercise prescription will be discussed. The focus will be on advanced therapeutic stabilization exercises, active and passive self-mobilization exercises, and load reduction exercises. Formerly PT 653.Prerequisites: PT 7522 and PT 7520.

Equivalent Courses

PT653

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 7550 Cardiopulm Exam/Intervention

Course Info

Course Title

Cardiopulmonary Examination and Interventions

Course Description

This course focuses on normal physiology, pathophysiology, tests and measures, screening, examination, evaluation, diagnosis, prognosis, plan of care and interventions of the cardiac and pulmonary systems. Cardiopulmonary considerations in a variety of diseases will be included. Lecture and laboratory sessions will emphasize clinical application and problem solving. Formerly PT 755. Prerequisites: PT 7522, PT 7271, PT 7420, PT 7510, and PT 7520.

Equivalent Courses

PT755

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 7600 Prosthetics and Orthotics

Course Info

Course Title

Prosthetic and Orthotic Examination and Interventions

Course Description

This course covers the principles and techniques for evaluating and managing patients/clients requiring prosthetic and/or orthotic devices, with a focus on foundational and translational knowledge. Lectures will explore prosthetic and orthotic prescription principles, while lab sessions will provide hands-on experience. Therapeutic exercises tailored to individuals using prosthetic and/or orthotic devices will be examined through case studies and practical applications. Accepted in the Doctor of Physical Therapy Program PT 6740, PT 7271, PT 7410, PT 7520, PT 7522

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PT 7611 Fnd Musculoskeletal Diagnosis

Course Info

Course Title

Foundations of Musculoskeletal Diagnosis and Interventions

Course Description

Principles and techniques of manual therapy intervention for the extremities are covered within this course. Clinical reasoning skills, evidence-based practice and use of prior learning are emphasized. Formerly PT 661.Prerequisites: PT 7522, PT 7510, and PT 7520.

Equivalent Courses

PT661

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 7652 Clinical Ed Experience II

Course Info

Course Title

Intermediate full-time Clinical Education Experience

Course Description

This course consists of a clinical education experience in a clinical setting under the supervision of a licensed physical therapist. Students will develop their skills in providing effective care using the patient/client management model in one or more of the following practice areas: musculoskeletal, neuromuscular, cardiopulmonary, and integumentary care. Prerequisite: Successful completion of all pre-clinical courses is required for registration in this course.

Equivalent Courses

PT682

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 7653 Clinical Education III

Course Info

Course Title

Full-time Clinical Education Experience III

Course Description

This course consists of a clinical education experience in a clinical setting under the supervision of a licensed physical therapist. Students will develop their skills in providing effective care using the patient/client management model in one or more of the following practice areas: musculoskeletal, neuromuscular, cardiopulmonary, and integumentary care. Accepted in the Doctor of Physical Therapy Program Prerequisite: PT 7652

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PT 7816 Clinical Anatomy/ Neuroanatomy

Course Info

Course Title

Clinical Anatomy and Neuroanatomy

Course Description

This course includes cadaver dissection with emphasis on the spine. There will be a review of functional anatomy relative to surface palpation of bone, ligament/tendon and muscles. A detailed description of joints, their surfaces, the ligamentous relationships including functional relationships between the noncontractile and contractile structures and the peripheral nervous system are analyzed. Vascular and neural supplies to the musculoskeletal system are described. Formerly PT 550. Prerequisites: Student must be admitted to a Physical Therapy program or have permission of department. Student must have completed human gross anatomy.

Equivalent Courses

PT550

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 7850 Imaging for Physical Therapist

Course Info

Course Title

Imaging for Physical Therapists

Course Description

Provides an introduction to the science and interpretation of medical imaging including plain film radiography, computed tomography, and magnetic resonance imaging. Focused on the neuromusculoskeletal system, select imaging tests and procedures related to the cardiovascular system, central nervous system, and gastrointestinal system, and genitourinary system are also discussed. Formerly PT 685. Prerequisites: PT 6751, Clinical Examination and Evaluation 1.

Equivalent Courses

PT685

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

1

PT 7882 Critical Inquiry II

Course Info

Course Title

Critical Inquiry II

Course Description

This course will emphasize the research process. Under the direction of a faculty adviser, students will develop a research proposal (including review of literature) which may serve as the basis for project completion for the research practicum. Students will also complete human subject institutional review board and student grant applications. Formerly PT 698. Prerequisite: PT 6881, be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT698

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8280 Pediatric Exam & Interventions

Course Info

Course Title

Pediatric Examination and Interventions

Course Description

This course will address examination, evaluation and intervention strategies for pediatric clients. Management of common diseases and disorders of infants, children and adolescents will be emphasized. Developmental, neurophysiological, and musculoskeletal theories will be integrated into examination and intervention strategies. Lecture, discussion, case studies, laboratory and clinical experiences will be incorporated. Formerly PT 628.Prerequisites: PT 7271, PT 8350, PT 7532, PT 7421, PT 7550, and PT 8622.

Equivalent Courses

PT628

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8282 Lifespan Development II

Course Info

Course Title

Lifespan Development II

Course Description

This course explores the age-related changes from adulthood into old age in terms of physiology, psychology, and sociology. Focus is on the special needs of the elderly and on the physical therapy management of the geriatric client. A holistic view of the rehabilitative, cognitive/behavioral, and psychosocial needs of the elderly will be explored. Formerly PT 728.Prerequisites: PT 6519, PT 7532, PT 7340, and PT 7421.

Equivalent Courses

PT728

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

PT 8300 Administration & Practice Mgt

Course Info

Course Title

Administration and Practice Management

Course Description

Discussion and group experience dealing with the various aspects related to the administration of a physical therapy service including personnel management, organizational dynamics, administrative ethics, public policy, physical design of a physical therapy practice, quality improvement, risk management, health care environmental arenas and managerial finance. Formerly PT 630.Prerequisites: PT 6511.

Equivalent Courses

PT630

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 8322 Professional Issues II

Course Info

Course Title

Professional Issues II

Course Description

This course prepares students for aspects of their professional roles as physical therapists including consultation, advocacy, professional development, interprofessional collaboration, and direction and supervision of physical therapist assistants and support personnel. This seminar will address legislative, legal and ethical issues. Formerly PT 732. Prerequisite: PT 6511.

Equivalent Courses

PT732

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8350 Educational Theory & Practice

Course Info

Course Title

Educational Theory and Practice

Course Description

The application of learning theories to teaching and learning interactions between physical therapists and patients and their families, colleagues, legislators and the community. Includes the importance of self-assessment and self-directed learning for continued professional development. Formerly PT 635.Prerequisites: PT 6511, PT 7271, PT 7652, and PT 7340. Student must be enrolled in a Physical Therapy program or have permission of department.Corequisite: PT 8355.

Equivalent Courses

PT635

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8355 Health Promotion and Wellness

Course Info

Course Title

Health Promotion and Wellness in Physical Therapy

Course Description

The role of physical therapists in fitness, health, wellness, and injury prevention. Concepts of health behavior, health education, fitness programming, cultural diversity, patient advocacy, ergonomics and disease and injury prevention are integrated into practice. Strategies for community assessment and the prevention of disability will be performed through service learning activities. Formerly PT 735.Accepted in the Doctor of Physical Therapy ProgramPrerequisites: PT 7532, PT 7611, PT 7340, PT 7421, and PT 7550.

Equivalent Courses

PT735

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status	Repeat Limit	Maximum Hours
Code	1	4
NR		

PT 8432 Neuromuscular Interventions II

Course Info

Course Title

Neuromuscular Interventions II

Course Description

This course will prepare the physical therapy student to design intervention programs for patients with neuromusculoskeletal problems at an entry-level, based on a thorough examination and evaluation. Diagnoses will include spinal cord injury, traumatic brain injury, cerebral vascular accident and other select dysfunctions. Formerly PT 743. Prerequisites: PT 6881, PT 8350, PT 7151, PT 8622, and PT 7421; be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT743

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PT 8510 Diff Diagnosis/Screening Ref'l

Course Info

Course Title

Differential Diagnosis: Screening for Referral

Course Description

This course is designed to develop physical therapy student knowledge of medical conditions that may impact the provision of physical therapy. Students will learn to identify signs and symptoms of common organ system disorders, and develop a clinical decision-making process for determining when referral to other medical professionals is warranted. Formerly PT 751. Prerequisites: PT 7532, PT 7611, PT 7652, PT 7340, PT 7421 and PT 7550.

Equivalent Courses

PT751

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8543 PT approaches to Med-Surg

Course Info

Course Title

Physical Therapy Approaches to Medical-Surgical Care

Course Description

This course prepares students to assess and treat patients with medical-surgical diagnoses in hospital and inpatient settings across the continuum of care. Emphasis is placed on post-operative management, wound and integumentary care, dynamic clinical decision making, patient safety procedures, discharge planning, coordination of care considerations, and critical care. Students will develop clinical reasoning and intervention skills to address impairments such as pain, weakness, and deconditioning while ensuring patient safety and monitoring vital signs. Through case-based learning and simulations, students will learn to create individualized treatment plans and collaborate with interdisciplinary teams to optimize functional outcomes. Accepted in the Doctor of Physical Therapy Program PT 7600, PT 7652, PT 7653, PT 7550

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 8550 Integ Exam/ Intervention

Course Info

Course Title

Integumentary Examination and Interventions

Course Description

In this course students will learn about anatomy, function, disease, injury and conditions that impact the integumentary system. The role of a physical therapist in screening, examination, evaluation, diagnosis, prognosis, plan of care, intervention and outcomes assessment for the integumentary system will be examined. Formerly PT 655. Prerequisites: PT 7522, PT 7420, PT 7510, and PT 8510.

Equivalent Courses

PT655

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8600 P & O Exam/ Intervention

Course Info

Course Title

Prosthetic and Orthotic Examination and Interventions

Course Description

Principles and techniques in the evaluation and management of clients requiring prosthetic and/or orthotic devices. Principles of prosthetic and/or orthotic prescription will be discussed. Therapeutic exercise for the prosthetic and/or orthotic user will be examined. Case studies and laboratories will be used. Student must be admitted to a Physical Therapy program or have permission of department. Prerequisites: PT 8550, PT 7611, PT 8432, PT 8280

Equivalent Courses

PT660

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8610 Arthrology

Course Info

Course Title

Arthrology

Course Description

This is a self-directed deep joint dissection course, with instructor assistance provided. Students will palpate, dissect, and describe in detail the anatomy and arthrology of either a peripheral joint or spinal region as assigned. Each student will systematically destabilize their pro-section and in the process create common orthopedic conditions. Formerly PT 761. Prerequisite: PT 7611. Corequisite: PT 8622.

Equivalent Courses

PT761

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8622 Advanced Musculoskeletal

Course Info

Course Title

Advanced Musculoskeletal Diagnosis and Interventions

Course Description

Principles and techniques of manual therapy intervention for the spine are covered within this course. Clinical reasoning skills, evidence-based practice and use of prior learning are emphasized. Formerly PT 762. Prerequisite: PT 7611. Corequisite: PT 8610.

Equivalent Courses

PT762

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8700 Capstone Exam in PT

Course Info

Course Title

Capstone Examination in Physical Therapy

Course Description

A computerized and comprehensive examination of entry-level physical therapy practice. Students will assess examination outcomes, standardized test-taking skills and develop a detailed, written plan of study to prepare for the licensure examination. Formerly PT 790. Prerequisite: PT 8953.

Equivalent Courses

PT790

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8800 Undstnding Evidence-Based Prac

Course Info

Course Title

Understanding Evidence-Based Practice

Course Description

An overview of evidence-based practice and its application to examination, evaluation, diagnosis, prognosis, and intervention in physical and occupational therapy. The course will also include a review of frameworks for clinical decision making, qualitative and quantitative research designs, and methods of assessing professional literature related to approaches used by healthcare professionals. Formerly PT 502. Prerequisites: Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT502

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

PT 8801 Clin Pharm Musculoskel Sys

Course Info

Course Title

Clinical Pharmacology of the Musculoskeletal System

Course Description

Principles of pharmacology including drug nomenclature, classification, pharmacokinetics, approval and regulation are reviewed. Typical agents, their pharmacokinetics, adverse effects and specific physical therapy concerns are covered for the following: analgesic and anti-inflammatory drugs, skeletal muscle relaxants, cardiovascular drugs, anti-infectious agents, cancer treatments, anti-epileptic drugs, anesthetics, psychopharmacology and endocrine pharmacology. Formerly PT 631. Prerequisite: Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT631

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8802 Motor Cont/Motor Lrn Theory/ Ap

Course Info

Course Title

Motor Control and Motor Learning Theory and Application

Course Description

This course integrates recent theories in neuroscience, motor learning, motor control, biomechanics and movement analysis in order to enhance and expedite patient recovery following neurological injury. Examination of motor control principles within functional activities will be analyzed with patient case examples. Formerly PT 536. Prerequisite: Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT536

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8803 Clinical Case Study

Course Info

Course Title

Clinical Case Study

Course Description

Methods of gathering, analyzing and synthesizing evidence to support clinical decision making and patient care will be presented. Students will complete an in-depth clinical case study using the patient management model and an evidenced-based practice approach. Students will complete a written paper and present the case study. Formerly PT 795. Student must be admitted to a Physical Therapy program or have permission of department. Prerequisites: PT 8800 and PT 8870.

Equivalent Courses

PT795

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8806 Methods Teach Learn Hlth Sci

Course Info

Course Title

Methods of Teaching and Learning in Health Sciences

Course Description

The process of selecting, designing, implementing and evaluating teaching methodologies for health science professionals will be presented. Application of these methods to clinical, academic, and community settings will be discussed. A project demonstrating attainment of teaching methods and techniques will be required. Student must be admitted to a post-professional or graduate program in the School of Health Sciences program or have permission of instructor.

Equivalent Courses

PT592

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

PT 8807 Educ Princ/Rehab Profess

Course Info

Course Title

Educational Principles for Rehabilitation Professionals

Course Description

The role of rehabilitation professionals as educators of students, patients, the community and other health care providers will be examined. Theoretical principles related to the teaching and learning process, adult learning and a professional development will be presented. Current issues in academic, post-professional and clinical education will be critically reviewed. Prerequisite(s): Student must be admitted to a program in Human Movement Science or have permission of department.

Equivalent Courses

PT810, PT8807P

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PT 8808 Professional Edu Health Sci

Course Info

Course Title

Professional Education in Health Sciences

Course Description

The roles and responsibilities of academic and clinical faculty in professional education will be discussed. An understanding of the processes related to education in post-secondary institutions, including accreditation, curriculum development, and assessment will be examined. Formerly PT 593. Prerequisites: PT 8807 or have permission of instructor.

Equivalent Courses

PT593

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

PT 8814 Foundations of Pediatric Pract

Course Info

Course Title

Foundations of Pediatric Practice

Course Description

Beginning with the origins of biological systems, the learner will review the impact of atypical physical development on independent performance and reexamine principles of sensormotor, emotional and behavioral development for examination, evaluation, intervention and functional goal-setting within multiple contexts. Formerly PT 500.Prerequisites: Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT500

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8815 Devlp Aspect/Pediatric Rehab

Course Info

Course Title

Developmental Aspects of Pediatric Rehabilitation

Course Description

Developmental theories and their application to growth and development in children as it relates to physical and occupational therapy examination, evaluation and treatment. An exploration of how illness and disability affect cognitive, social-emotional and motor development. Emphasis will be placed on the interaction among various aspects of development, with particular attention to the effect of motoric and physiological dysfunction on cognitive and socio-emotional growth and development. Formerly PT 507. Prerequisite: Student must be admitted to a physical therapy program or have permission of department.

Equivalent Courses

PT507

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8816 Ped Musculo Exam/ Intervention

Course Info

Course Title

Pediatric Musculoskeletal Examination and Intervention

Course Description

An overview of normal development of the musculoskeletal system, fetal through skeletal maturity, lays the foundation for discussing the implications of atypical physical development. The application of examination and intervention strategies (e.g., adaptive equipment, functional message, assessing joint restrictions) for the upper and lower extremities, the spine and rib cage in children will be presented in lecture/lab format. Formerly PT 525. Prerequisite: Student must be admitted to a post-professional Physical Therapy program or have permission of department.

Equivalent Courses

PT525

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8822 Fnds Geriatric Neurol Pract

Course Info

Course Title

Foundations of Geriatric Neurological Practice

Course Description

This course reviews the pertinent physiological changes that occur with aging and their impact on the therapeutic effects of intervention with those individuals who have sustained a neurological injury. Psychosocial and cognitive aspects of aging and their influence on the recovery of the geriatric adult will be discussed. Factors affecting the patient, family, and the patient/family relationship in the situation of chronic illness and loss will be examined. Learning formats will include lecture, web-based materials, case studies, and small group discussions. Formerly PT 537. Prerequisite: Student must be admitted to a post-professional Physical Therapy program or have permission of department.

Equivalent Courses

PT537

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8823 Assess of Neuro Dysfunction

Course Info

Course Title

Assessment of Neurological Dysfunction

Course Description

This course is designed to enhance the examination and evaluation skills of therapists working with individuals with neurological dysfunctions. Evidence supporting or questioning current and new neurological examination procedures will be scrutinized. A number of objective function outcome measures will be presented and appropriate utilization of these measures will be discussed. Utilization of current technology such as motion analysis systems, force plates, electromyography, electrogoniometry, etc., used to enhance and objectify the examination and evaluation of individuals with neurological dysfunction will be a significant part of this class. Lecture, lab experiences, web-based material, case studies, small group problem solving and discussion will enhance the learning and integration of course material. Formerly PT 538. Prerequisite: Student must be admitted to a post-professional Physical Therapy program or have permission of department.

Equivalent Courses

PT538

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8824 Devel Interven/Neurolgic Dysfn

Course Info

Course Title

Developing Interventions for Patients with Neurologic Dysfunction

Course Description

This course integrates information from prerequisite classes in determining and developing interventions for patients with functional limitations and impairments due to neurological dysfunction. Evidence from a variety of sources supporting clinical interventions will be examined. Medical management of relevant symptoms displayed by persons with neurological dysfunction will be examined. Formerly PT 539.Prerequisites: PT 8823 and be admitted to a post-professional Physical Therapy program, or have permission of department.

Equivalent Courses

PT539

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8830 Essentials Comp Oncology Rehab

Course Info

Course Title

Essentials of Comprehensive Oncology Rehabilitation

Course Description

An overview of comprehensive oncology rehabilitation terminology, clinical medicine including treatments and side effects, team member roles and professional organizations, administration and program development, evidence based practice and grants/ foundations, resources and patient advocacy for survivors and caregivers across the continuum of care in the various practice settings. Formerly PT 663.Prerequisite (s): Course may be taken for credit which requires admission to a Physical Therapy Post-professional or Certificate Programs, for professional development or with instructor permission.

Equivalent Courses

PT663

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 8831 PT Mgt-Blood/Head/Neck/
CNerv

Course Info

Course Title

Rehabilitation of Blood, Head & Neck, and Central Nervous System
Oncology Conditions

Course Description

Evidence based, applied and problem solving approach to the rehabilitation of individuals with cancers of the blood, bone, head and neck, and central nervous system origins across the continuum of care. Rehabilitation Professionals practice patterns will provide a framework for care with a focus on comprehensive oncology rehabilitation that engenders the team based approach for optimal patient outcomes. Formerly PT 672.Prerequisite (s): This course may be taken for credit that requires admission to a Physical Therapy Post-professional or Certificate Program, for professional development or with instructor permission.

Equivalent Courses

PT672

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
2

Maximum Hours
3

PT 8832 Rehab Mgt/Upper Quarter
Oncol

Course Info

Course Title

Rehabilitation Management of Upper Quarter Oncology Conditions

Course Description

Evidence-based, applied and problem solving approach to rehabilitation management of individuals with cancers of the upper quarter across the continuum of care. Rehabilitation professionals practice patterns will provide a framework for care with a focus on comprehensive oncology rehabilitation that engenders the team based approach for optimal patient outcomes. Formerly PT 670.

Equivalent Courses

PT670

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 8833 Rehab Mgt Lower Oncol Cond.

Course Info

Course Title

Rehabilitation Management of Lower Quarter Oncology Conditions

Course Description

Evidence-based, applied and problem solving approach to rehabilitation management of individuals with cancers of the lower quarter across the continuum of care. Rehabilitation professionals practice patterns will provide a framework for care with a focus on oncology rehabilitation that engenders the team based approach for optimal patient outcomes.. Formerly PT 671.

Equivalent Courses

PT671

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 8834 Rehab Pediatric Onc Condition

Course Info

Course Title

Rehabilitation of Pediatric Oncology Conditions

Course Description

Evidence-based, applied and problem solving approach to rehabilitation of children with cancer across the continuum of care. Rehabilitation professional's practice patterns will provide a framework for care with a focus on comprehensive oncology rehabilitation that engenders the team based approach for optimal outcomes for children and their families.. PT 674.

Equivalent Courses

PT673

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 8860 Advanced Orthopedics I

Course Info

Course Title

Advanced Orthopedics I

Course Description

This course is designed to introduce basic orthopedic science, orthopedic practice principles, and treatment techniques required in the day-to-day management of patients with movement impairments, functional limitations, and disabilities due to musculoskeletal pathologies of the extremities. Formerly PT 510. Prerequisites: Student must be admitted to one of Oakland University's post-graduate physical therapy programs or have permission of department. Two years of clinical experience is recommended.

Equivalent Courses

PT510

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8861 Advanced Orthopedics II

Course Info

Course Title

Advanced Orthopedics II

Course Description

Building upon the basic science practice principles and treatment techniques introduced in PT 510, this course will address the day-to-day management of patients with movement impairments, functional limitations, and disabilities due to musculoskeletal pathologies of the spinal column. Formerly PT 511. Prerequisites: PT 8861, be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT511

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8862 Advanced Orthopedics III

Course Info

Course Title

Advanced Orthopedics III

Course Description

This laboratory and lecture course focuses on advanced examination and intervention for movement impairments in the spinal column and extremities. Formerly PT 520. Prerequisites: (PT 8860 and PT 8861) and be admitted to one of Oakland's post-graduate Physical Therapy programs or have permission of department.

Equivalent Courses

PT520

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8863 Advanced Orthopedics IV

Course Info

Course Title

Advanced Orthopedics IV

Course Description

This laboratory and lecture course focuses on advanced clinical decision making, patient prognostication, application of physical tests and measures and interventions for patients with complex spinal orthopedic conditions. Formerly PT 530. Prerequisites: (PT 8860, PT 8861 and PT 8862) and be admitted to one of Oakland University's post-graduate Physical Therapy programs or have permission of department.

Equivalent Courses

PT530

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8870 Adv Diff Diagnosis/Screen Ref

Course Info

Course Title

Advanced Differential Diagnosis: Screening for Referral

Course Description

This course is designed to advance the practicing physical therapist's knowledge of medical conditions that may impact the provision of physical therapy. Prior learning and clinical experience will be emphasized to assist in identifying signs and symptoms of organ system disorders, and determining when referral to other medical professionals is warranted. Formerly PT 677.

Equivalent Courses

PT677

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8871 Applied Movement Sciences

Course Info

Course Title

Applied Movement Sciences

Course Description

This course focuses on common symptomatic movement related disorders associated with various orthopedic spinal and peripheral joint pathologies. Students will perform and prescribe movement/exercise interventions for patients with impairments associated with select musculoskeletal pathologies. Tissue healing, musculoskeletal biomechanics, motor skill development, and tissue response to exercise will also be discussed. Formerly PT 611. Prerequisite: Student must be admitted to a Physical Therapy post-professional program or have permission of department.

Equivalent Courses

PT611

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

PT 8872 Craniomandibular System

Course Info

Course Title

Craniomandibular System

Course Description

The course offers a comprehensive overview of tempormandibular anatomy, biomechanics, clinical examination, evaluation and intervention. Differential evaluation of other sources of head and facial pain are presented and discussed. Formerly PT 523. Prerequisite: Student must be admitted to a post-entry level Physical Therapy program or have permission of department.

Equivalent Courses

PT523

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8875 Diagnostic Imaging

Course Info

Course Title

Diagnostic Imaging

Course Description

Diagnostic imaging techniques (roentgenography, MRI, CT, etc.) as they apply to evaluation of the neuromusculoskeletal system are presented and discussed. Radiographic interpretation and imaging interpretation of various traumatic lesions and arthropathies that affect the musculoskeletal and associated systems will be conducted. Selected correlations with physical and laboratory findings will be discussed. Student must be admitted to a physical therapy program or have permission of department. Student must also meet the prerequisite (PT 513) or its equivalent or have a physical therapy license.

Equivalent Courses

PT503

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8876 Advanced Arthrology

Course Info

Course Title

Advanced Arthrology

Course Description

An advanced self-directed deep joint dissection course. Students will be assigned either a peripheral joint or spinal region to dissect. Students will palpate, dissect, and describe in detail the anatomy and arthrology of their assigned joint/spinal region. Each student will systematically destabilize their pro-section and in the process create an orthopedic instability. Ligamentous stress testing and translation joint play testing will occur during the destabilization of the pro-section. Formerly PT 526.

Equivalent Courses

PT526

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8881 AO - Foundations in OMPT

Course Info

Course Title

Advanced Orthopedics - Foundations in OMPT

Course Description

This course will introduce foundational content necessary for the clinical practice of Orthopedic Manual Physical Therapy. Accepted in the Graduate Certificate in OMPT or the PhD in Human Movement Science

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
1

PT 8882 AO - Lower Quarter

Course Info

Course Title

Advanced Orthopedics – Lower Quarter

Course Description

This course focuses on applying OMPT practice principles and skills to the lower quadrant (lower extremity, SI joint, and lumbar spine).Accepted in the Graduate Certificate in OMPT or the PhD in Human Movement Science

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 8883 AO - Upper Quarter

Course Info

Course Title

Advanced Orthopedics – Upper Quarter

Course Description

This course focuses on applying OMPT practice principles and skills to the upper quadrant (upper extremity, thoracic spine, cervical spine, and TMJ).Accepted in the Graduate Certificate in OMPT or the PhD in Human Movement Science

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

PT 8884 AO - Spine

Course Info

Course Title

Advanced Orthopedics – Spine

Course Description

This course focuses on applying advanced OMPT practice skills to the upper and lower quadrants, emphasizing the spinal column. Accepted in the Graduate Certificate in OMPT or the PhD in Human Movement SciencePT 8882, PT 8883

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

PT 8885 AO - Clinical Fellowship 1

Course Info

Course Title

Advanced Orthopedics – Clinical Fellowship 1

Course Description

This course provides supervised practice in an orthopedic manual physical therapy clinical setting. Students will actively apply principles and techniques taught in PT 8881, 8882, and 8883 to manage patients with arthroneuromuscular pathology and related biopsychosocial presentations. During this course, the student will take an active role in interpreting and progressing selected patient cases and will be responsible for developing, presenting, and peer-reviewing patient cases. Student must have a physical therapy license, be admitted to a post-professional physical therapy program or have permission of department.

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
1

PT 8886 AO – Clinical Fellowship 2

Course Info

Course Title

Advanced Orthopedics – Clinical Fellowship 2

Course Description

This course provides supervised practice in an orthopedic manual physical therapy clinical setting. Students will actively apply principles and techniques taught in PT 8884 to manage patients with arthroneuromuscular pathology and related biopsychosocial presentations. During this course, the student will take an active role in interpreting and progressing selected patient cases and will be responsible for developing, presenting, and peer-reviewing patient cases. Accepted in the Graduate Certificate in OMPT or the PhD in Human Movement Science

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

1

PT 8900 Spec Topics/Physical Therapy

Course Info

Course Title

Special Topics in Physical Therapy

Course Description

The content will focus on a range of theoretical or applied topics which are of current interest in physical therapy and are not addressed in other courses. May be taken more than once but for no more than 6 credits. Formerly PT 695. Prerequisite: Student must be admitted to a Physical Therapy program and have approval of instructor.

Equivalent Courses

PT695

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

6

PT 8925 Research Directed Study

Course Info

Course Title

Research Directed Study

Course Description

A directed study on a research topic or component of research completed under the direction of a faculty research mentor. Course may be repeated for up to 10 credits. Formerly PT 615.Prerequisite: Student must have the prerequisite permission of department.

Equivalent Courses

PT615

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	10

PT 8953 Clinical Ed Experience III

Course Info

Course Title

Terminal full-time clinical education experience I

Course Description

This course consists of a clinical education experience in a clinical setting under the supervision of a licensed physical therapist. Students will refine their clinical skills and will have additional learning experiences in patient/client management, evidence-based practice and practice management in preparation for entry into professional practice.

Equivalent Courses

PT783

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PT 8954 Clinical Ed Experience IV

Course Info

Course Title

Terminal full-time clinical education experience II

Course Description

This course consists of a clinical education experience in a clinical setting under the supervision of a licensed physical therapist. Students will refine their clinical skills and will have additional learning experiences in patient/client management, peer mentoring and practice management in preparation for entry into professional practice. Prerequisite: PT 8953.

Equivalent Courses

PT784

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8955 Clin Orthopedic Internship I

Course Info

Course Title

Clinical Orthopedic Internship I

Course Description

This course is designed to provide supervised clinical practice in an orthopedic manual physical therapy setting. Students will apply principles and techniques taught in PT 510 and PT 511 to the management of live patients. Additional instruction in aspects of orthopedic physical therapy intervention will include coordination, communication, documentation, and patient/client-related instruction. Student must have a physical therapy license, be admitted to a post-professional physical therapy program or have permission of department.

Equivalent Courses

PT601

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	2

PT 8956 Clin Orthopedic Internship II

Course Info

Course Title

Clinical Orthopedic Internship II

Course Description

This course is designed to provide supervised clinical practice in an orthopedic manual physical therapy setting. Students will actively apply principles and techniques taught in PT 520 to the management of live patients. Additional instruction in aspects of orthopedic manual physical therapy intervention will be included. Student must meet the prerequisites (PT 510, PT 511 and PT 601), have a physical therapy license, be admitted to a post-professional physical therapy program or have permission of department.

Equivalent Courses

PT602

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8957 Clinical Orthopedic Intern III

Course Info

Course Title

Clinical Orthopedic Internship III

Course Description

This course is designed to provide supervised clinical practice in an orthopedic manual physical therapy setting. Students will actively apply principles and techniques taught in PT 530 to the management of live patients. Additional instruction in aspects of orthopedic manual physical therapy intervention will be included. Student must meet the prerequisites (PT 510, PT 511, PT 520, PT 601 and PT 602), have a physical therapy license, be admitted to a post-professional Physical Therapy program or have permission of department.

Equivalent Courses

PT605

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8959 Ped Clinical Internship I

Course Info

Course Title

Pediatric Clinical Internship I

Course Description

Supervised clinical practice in a pediatric rehabilitation setting. Students must demonstrate an integration of examination, evaluation and intervention and assessment skills. Functional assessment and training are incorporated. Formerly PT 603. Prerequisite: Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT603

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

2

PT 8960 DPT Research Practicum

Course Info

Course Title

DPT Research Practicum

Course Description

Under the supervision of a faculty advisor, students will complete a research project. Students will collect, analyze and present data in both an oral and written format. There is an expectation that students will present their findings from this terminal experience at a public forum and submit final manuscripts in publication format. Formerly PT 799. Prerequisite: PT 7882.

Equivalent Courses

PT799

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

3

PT 8961 Community Practicum

Course Info

Course Title

Community Practicum in Physical Therapy

Course Description

The role of the physical therapist as an advanced practitioner in health, wellness and injury and disease prevention are examined. Current concepts and models in community and public health related to the practice of physical therapy will be critically reviewed. Roles for physical therapists in wellness throughout the life span will be discussed. Formerly PT 820. Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT820

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

PT 8964 Teaching Practicum for Hlth Sc

Course Info

Course Title

Teaching Practicum for Health Science Professionals

Course Description

Students will participate in a variety of experiences which may include developing lesson plans, writing objectives, providing lectures, directing and developing laboratory experiences, developing and providing modules via the Internet, and/or developing and providing in-service education to clinical staff or the general public. Student must have permission of Instructor or program coordinator

Equivalent Courses

PT594

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PT 8966 OMPT Practicum

Course Info

Course Title

OMPT Practicum

Course Description

This course is the culmination course in the OMPT program and consists of a full-time clinical experience and presentation of patients' findings in a variety of formats. Formerly PT 680. Prerequisites: PT 8860, PT 8861, PT 8862, PT 8955, PT 8956, and PT 8957; have a physical therapy license; be admitted to a post-professional Physical Therapy program or have permission of department.

Equivalent Courses

PT680

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

PT 8970 Independent Study

Course Info

Course Title

Independent Study

Course Description

Student initiated and problem-oriented independent study focusing on physical therapy issues. May be repeated for additional credit. Graded numerically or Satisfactory/Unsatisfactory. Student must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT598

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

PT 8966P OMPT Practicum

Course Info

College/School

School of Health Sciences

Department

PT

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
8

PT 8974 Clinical Education IV

Course Info

Course Title

Terminal Full-time Clinical Education Experience

Course Description

This course consists of a clinical education experience in a clinical setting under the supervision of a licensed physical therapist. Students will refine their clinical skills and will have additional learning experiences in patient/client management, peer mentoring and practice management in preparation for entry into professional practiceAccepted in the Doctor of Physical Therapy ProgramPT 7653 and all preclinical courses including, PT 8280 PT 8300, PT 8432, PT 8322, PT 8550

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PT 9000 Advanced Scientific Inquiry

Course Info

Course Title

Advanced Scientific Inquiry

Course Description

Concepts related to understanding and developing relevant research in Human Movement Science will be examined. Topics include: research and analyses methodologies, ethics in research, and a critical review of existing research. Students will be expected to initiate a review of the literature and outline the research proposal.

Equivalent Courses

PT900

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

PT 9010 Analysis of Clinical Findings

Course Info

Course Title

Analysis of Clinical Findings

Course Description

Methods for analysis of quantitative and qualitative data in human movement science. Students are expected to use statistical software, take an active role in data exploration, present their findings, and discuss results. Previously 901. Prerequisite(s): Student must be admitted to a program in Human Movement Science or have permission of department.

Equivalent Courses

PT901, PT9010P

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PT 9940 Professional Seminar

Course Info

Course Title

Professional Seminar

Course Description

Students will be oriented to the process of doctoral education. Students will develop a plan of study and determine professional goals. Students will initiate activities in teaching, research and grant-writing. Prerequisite(s): Student must be admitted to a program in Human Movement Science or have permission of department.

Equivalent Courses

PT800, PT9940P

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

PT 9969 Doctoral Research Project

Course Info

Course Title

Doctoral Research Practicum

Course Description

Students will complete and orally defend their individual research project. This will include development of a proposal and piloting of procedures and instruments to be used in the study. Students will present their proposal to their graduate committee for approval prior to implementation and submission for IRB approval. DScPT students must complete 8 credits. Formerly PT 950. Students must be admitted to a Physical Therapy program or have permission of department.

Equivalent Courses

PT950

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours
1	Max: 8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	10	99

PT 9999 Dissertation Research

Course Info

Course Title

Dissertation Research

Course Description

Research activities leading to the completion of a doctoral dissertation. Student must have permission of the chair of the dissertation committee.

College/School

School of Health Sciences

Department

Human Movement Science

Credits

Credit Hours

Units:	Credit Hours
1	Max: 16

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

QMM 5100 Quantitative Methods for Mgrs

Course Info

Course Title

Quantitative Methods for Managers

Course Description

Computer based applications of data analytic methods to business problems using spreadsheet models and statistical software. Topics include: describing and visual presentation of data; probability and random variable models; decision analysis, confidence intervals and hypothesis testing; analysis of variance; regression analysis; and optimization. Formerly QMM 510. Prerequisite: Student must be admitted to a graduate business program.

Equivalent Courses

QMM510

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

QMM 5520 Forecasting

Course Info

Course Title

Forecasting

Course Description

Survey of time-series forecasting methods used in business, including trends, exponential smoothing, decomposition, ARIMA, and neural nets. Econometric topics include seasonal binaries, autocorrelation, and lagged variables. Includes case studies and discussion of current economic conditions. Computer tools are used for individual and team projects. Formerly QMM 6520. Prerequisite: QMM 5100 or have completed a course in statistics.

Equivalent Courses

QMM6520

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

3

QMM 6400 Management Science

Course Info

Course Title
Management Science

Course Description
This is a survey course of management science topics such as Decision Trees, Linear Programming, Transportation and Scheduling Models, Linear and Logistic Regression, Markov Chains and Queuing. Course emphasis is on problem formulation or drawing the link between a business problem and a mathematical model that allows studying or optimizing the business process. The course uses standard software tools and meets in a computer lab. Prerequisite QMM 5100.

Equivalent Courses
QMM640

College/School
School of Business Admin.

Department
Decision & Info Sciences

Credits
Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

QMM 6900 ST: Quantitative User Experien

Course Info

Course Title
Special Topics in Quantitative Methods

Course Description
An advanced course involving study of current issues and recent developments in Quantitative Methods. Topics vary. See Schedule of Classes for current offering. Course may be repeated for a maximum of six credits. Same topic cannot be repeated.

Equivalent Courses
QMM690

College/School
School of Business Admin.

Department
Decision & Info Sciences

Credits
Credit Hours

Units:
3

QMM 6970 Independent Study/Quant Method

Course Info

Course Title

Independent Study in Quantitative Methods

Course Description

Independent individual research on a topic chosen by the student. A written contract must be prepared and approved by Department Chair and Office of Graduate Business Programs before registration is permitted. Formerly QMM 690. Prerequisite: Student must have prior approval of instructor.

Equivalent Courses

QMM690

College/School

School of Business Admin.

Department

Decision & Info Sciences

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

6

RDG 5200 Early Literacies

Course Info

Course Title

Early Literacies

Course Description

This course will cover students’ development and assessment/ instructional methods for concepts about print, phonological and phonemic awareness, phonic knowledge, letter name and sound knowledge, word recognition and meaning strategies, fluency, orthographic knowledge, emergent/beginning composition that includes multiple modes of meaning representation, oral language, and comprehension with typically and atypically developing students.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

NR

RDG 5202 Rdg/LArts in Elem/Mid Schl I

Course Info

Course Title

Reading and Language Arts in the Elementary and Middle School I

Course Description

First course of a two course sequence meant to provide candidates for elementary school certification knowledge of reading and language arts theory, the application of appropriate teaching methods and classroom assessment tools. Student must be admitted to the MAT program with Elementary Certification.

Equivalent Courses

RDG502

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

RDG 5203 Rdg/LArts in Elem/Mid Schl II

Course Info

Course Title

Reading and Language Arts in the Elementary and Middle School II

Course Description

Second of a two course sequence meant to provide candidates for elementary certification knowledge of reading and language arts theory, the application of appropriate teaching methods and classroom assessment tools. Student must meet prerequisite (RDG 502).

Equivalent Courses

RDG503

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

RDG 5210 Inquiry-Based Literacy Instruc

Course Info

Course Title
Inquiry-Based Literacy Instruction

Course Description
Extension of literacy teaching in elementary and middle grades based on assessment. Content includes wide range of literacy topics including classroom-based assessment, evaluation and instruction. Meets the Michigan reading requirements for certificate renewal and professional certificate. Student must have Elementary or Secondary Provisional Teaching Certificate.

Equivalent Courses
RDG510

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits
Credit Hours

Units:	Credit Hours
3	Max:
	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	6

RDG 5240 Advanced Literacies

Course Info

Course Title
Advanced Literacies

Course Description
This course will cover students' development and assessment/ instructional methods for advanced word recognition and meaning strategies, fluency, advanced orthographic knowledge, almost fluent and fluent composition that includes multiple modes of meaning representation, oral language, and comprehension with typically and atypically developing students.

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits
Credit Hours

Units:
3

Repeat Rules
Repeat Status Code
NR

RDG 5439 Clinc Issues Erly Lit Instr/RR

Course Info

Course Title

Clinical Issues in Early Literacy Instruction: Reading Recovery Teacher Training

Course Description

A three-semester sequence to prepare teachers to implement specialized reading methods with young children most at risk for reading difficulty in the classroom context. Teachers observe, record, analyze and modify the reading and writing behavior of children and develop understandings of reading acquisition. May be repeated for a maximum of 10 credits. Student must be nominated by a participating school district and accepted into the Reading Recovery® program or receive permission from the program director.

Equivalent Courses

RDG539

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	4	8

RDG 5449 Lit Lessons Teacher Training

Course Info

Course Title

Literacy Lessons Teacher Training

Course Description

A three-semester (1 academic year) sequence to prepare specialist teachers to implement specialized reading methods with children most at risk for reading difficulty. Teachers observe, record, analyze and modify the reading and writing behavior of children and develop understandings of reading acquisition. Student must be nominated by a participating school district and accepted into the Reading Recovery® program or receive permission from the program director.

Equivalent Courses

RDG559

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

RDG 5459 Lit Support Teacher Training

Course Info

Course Title

Literacy Support Teacher Training

Course Description

A three-semester (1 academic year), 8-credit sequence to prepare classroom teachers and teachers of small group interventions to implement specialized reading methods with children at risk for reading difficulty. Teachers observe, record, analyze and modify the reading and writing behavior of children and develop understandings of reading acquisition. Student must be nominated by a participating school district and accepted into the Reading Recovery program or receive permission from the program director. Formerly: RDG 569

Equivalent Courses

RDG569

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
2

Maximum Hours
4

RDG 5520 Foundation Rdg Instruct

Course Info

Course Title

Foundations in Reading Instruction

Course Description

Provides an overview of the reading process including reading readiness, comprehension, word recognition diagnosis, methods of instruction, and related language acquisition processes.

Equivalent Courses

RDG500

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

RDG 5530 Author/Illust Art/Craft

Course Info

Course Title

The Author's and Illustrator's Art and Craft

Course Description

Selected author's and Illustrator's works are read and criticized in light of psychological, sociological, historical, literary and curricular factors. Examines ways to encourage young people in elementary and secondary schools to read critically and appreciatively a variety of literary works representing multicultural perspectives and works in translation. May be taken two times for a total of no more than 8 total credits.

Equivalent Courses

RDG570

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

RDG 5531 Found Lit Child/Yng Adults

Course Info

Course Title

Foundations of Literature for Children and Young Adults

Course Description

Presents criteria for selecting and evaluating literature for children and young adults from a historical perspective. Examines important research in the field and ways to incorporate literature, specifically multicultural and international literature, into the curriculum via books, tapes and films.

Equivalent Courses

RDG571

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

RDG 5533 Literature:Middle/Senior Schls

Course Info

Course Title

Adolescent Literature in Middle Schools, Junior and Senior High Schools

Course Description

Introduces literature written for and of interest to adolescents. Topics include trends in literature and publishing, methods of presenting books, how to stimulate reluctant readers and the use of trade books, tapes and films in content areas.

Equivalent Courses

RDG573

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

RDG 5534 Literature for the Young Child

Course Info

Course Title

Literature for the Young Child

Course Description

Emphasizes the careful selection and sensitive use of developmentally appropriate and enriching literature, including multicultural literature, with preschool and early elementary school children.

Equivalent Courses

RDG574

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

RDG 5537 Storytelling & Creative Dramat

Course Info

Course Title

Storytelling and Creative Dramatics

Course Description

Focuses on methods of encouraging children to use imaginative and dramatic skills to interpret literature. Helps teachers use creative drama techniques. Provides opportunities to select, learn and tell stories and lead drama activities, storytelling and creative drama programs.

Equivalent Courses

RDG572

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

RDG 5542 Tch Writg Elem/Sec Schools

Course Info

Course Title

Teaching Writing in the Elementary and Secondary Schools

Course Description

Emphasizes writing and teaching the writing process. Topics include prewriting, drafting, revising, publishing, conferencing, writing workshops, poetry, evaluation, writing across the curriculum, invented spelling, reading-writing connection and issues related to learning to write.

Equivalent Courses

RDG575

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 5544 Poetry: Reading and Writing

Course Info

Course Title

Poetry: Reading and Writing

Course Description

Examines children's response to poetry, the writing of poetry, approaches writers use in poems and the strategies teachers can use when teaching poetry writing. Emphasis will be on learning how to read and write poetry, professional teaching and assessment.

Equivalent Courses

RDG576

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 5545 Narrative Reading/Writing

Course Info

Course Title

Narrative: Reading and Writing

Course Description

Examines children's responses to narrative writing, how they write fiction and the relationship between fiction writing and reading comprehension. Also examines how writers write fiction, how reading fiction improves writing, and methods of assessing responses to narrative writing.

Equivalent Courses

RDG577

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 5546 Non-Fiction Rdg/Writing

Course Info

Course Title

Non-Fiction: Reading and Writing

Course Description

Examines language, cognitive development and non-fiction reading and writing. Students work on their own writing and explore teaching methods and research related to expository writing. Students read non-fiction as models for writing and consider ways to teach non-fiction writing.

Equivalent Courses

RDG578

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 5557 Content Rdg in the Elem School

Course Info

Course Title

Content Reading in the Elementary School

Course Description

Designed for content subject learning in the elementary classroom. The course bridges learning to read and reading to learn practices relevant to the curriculum of elementary school children.

Equivalent Courses

RDG537

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 5558 Disciplinary Literacies

Course Info

Course Title
Disciplinary Literacies

Course Description
Stresses the reading processes and skills students need to independently acquire and apply content understandings. Intended for middle-grade, junior high and senior high school teachers who work primarily in subject areas of the curriculum.

Equivalent Courses
RDG538, RDG5558P

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	8

RDG 5634 Rdg-Lang Arts Inst Elem Ed

Course Info

Course Title
Reading-Language Arts Instruction in the Elementary School

Course Description
Emphasizes the teaching of writing, reading, listening, speaking and spelling. Develops a coordinated approach to teaching all language arts skills.

Equivalent Courses
RDG534

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 5640 Leadership Literacy Instruct

Course Info

Course Title

Leadership in Literacy Instruction

Course Description

Focuses on the organization and administration of reading and language arts programs in the elementary, middle and secondary levels. Emphasis on how Literacy philosophy is related to policy at the national, state and local levels, staff and program development, text selection, and interpretation of student assessment for reading and language arts. Student must meet prerequisites (RDG 500, RDG 571, and RDG 575).

Equivalent Courses

RDG540

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

RDG 5660 Emerging Lit/Early Rdg/
Writing

Course Info

Course Title

Emerging Literacy: Early Reading and Writing

Course Description

Examines principles, strategies and research related to early literacy development among children from preschool through primary grades. Emphasizes the developmental nature or early learning and literacy.

Equivalent Courses

RDG560

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

RDG 5661 Phonics in Proper Perspective

Course Info

Course Title
Phonics in Proper Perspective

Course Description
Addresses the role of phonics in the reading process of emergent and mature readers. Different theoretical views of phonics are examined and compared. Explores phonemic awareness and related concepts. Strategies for teaching phonics are presented. Special emphasis placed on the appropriate uses of phonics in a whole language curriculum.

Equivalent Courses
RDG561

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 5664 Teaching Rdg in Primary Grades

Course Info

Course Title
Teaching Reading in the Primary Grades

Course Description
Examines principles, practices and research related to early reading instruction. Includes analysis of the relationships of the various language arts to reading and emphasizes the developmental literacy skills of children, starting with kindergarten.

Equivalent Courses
RDG532

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	6

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	6

RDG 5970 Ind Study Rdg/Lang Arts

Course Info

Course Title

Independent Study: Reading and Language Arts

Course Description

Topics differ depending on student interests. Students pursue a topic independently but with instructor guidance. A written proposal is prepared and must be approved by faculty sponsor.

Equivalent Courses

RDG590

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

RDG 6439 Clinical Issues: Rdg Recovery

Course Info

Course Title

Clinical Issues in Early Literacy Instruction: Reading Recovery
Teacher Leader Training

Course Description

A three-semester sequence designed to prepare teachers to implement reading methods for use with young children most at risk for reading difficulty. Teachers observe, record, analyze and modify the reading and writing behavior of children. Teachers develop understandings of the theoretical underpinnings of reading acquisition. May be repeated for a maximum of 12 credits. Students must be nominated by a participating school district and accepted into the Reading Recovery® program, or have permission of the program director. Corequisite: RDG 649.

Equivalent Courses

RDG639

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	4	8

RDG 6449 Lit/Theory/Research/Tchr Leadr

Course Info

Course Title

Literacy Theories and Research/Reading Recovery® Teacher Leader

Course Description

A three-semester (over one academic year) sequence in which Reading Recovery® teacher leaders-in-training explore the theoretical foundations underlying various aspects of the reading and writing processes, language, language development, emergent literacy, and theory and research behind literacy difficulties. Student must be nominated by a participating school district and accepted into the Reading Recovery® program or receive permission from the program director. This course will run concurrently with RDG 6439

Equivalent Courses

RDG639

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

Repeat Rules

Repeat Status Code

RP

Repeat Limit

4

Maximum Hours

8

RDG 6563 Read/Writing Connection

Course Info

Course Title

The Reading-Writing Connection

Course Description

Develops understanding of the nature of the writing and reading processes, the influence of reading on writing, the influence of writing on reading, the uses of literature in the reading-writing connection and the nature of the learner in the reading-writing process.

Equivalent Courses

RDG563

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

4

RDG 6664 Teacher as Researcher

Course Info

Course Title

Teacher as Researcher: Classroom Inquiry

Course Description

Focus is on the role of the teacher as researcher exploring problems and/or questions of interest within her classroom and/or school. Students will be exposed to and engaged in qualitative approaches to research and the process of conducting classroom and community-based research.

Equivalent Courses

RDG564

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 6666 ESL: Lit for Second Lang Learn

Course Info

Course Title

ESL: Literacy for Second Language Learners

Course Description

Examines significant issues involved in teaching literacy to children and adults who are second language learners of English (ESL: English as a Second Language). Provides background for ESL teachers and suggests methods, practices and procedures for working with ESL learners.

Equivalent Courses

RDG566

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 6940 Problems Reading Instruc

Course Info

Course Title
Problems in Reading Instruction

Course Description
Analyzes diagnostic, methodological, organizational and administrative issues in reading and language arts. Topics vary depending on student and instructor interests.

Equivalent Courses
RDG631

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
2	Max: 8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

RDG 6940P Problems in Rdg Instruction

Course Info

College/School
School of Ed. and Human Svcs.

Department
RDG

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 6962 Literacy Assessment

Course Info

Course Title

Literacy Assessment

Course Description

An experiential service learning course focused on testing and evaluating a child's reading strengths, needs, and levels. Students develop, administer, analyze, interpret and score formal and informal assessments, and write reader reports of their findings.

Equivalent Courses

RDG632

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 6963 Assessment-Based Literacy Inst

Course Info

Course Title

Assessment-Based Literacy Instruction

Course Description

An experiential service learning course focused on developing and implementing assessment-based reading instruction with a child under the supervision of the instructor. Students must have taken RDG 6962 in the previous semester.

Equivalent Courses

RDG633

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 6971 Teaching Appren:Rdg/Lang Arts

Course Info

Course Title

Teaching Apprenticeship: Reading and Language Arts

Course Description

Students work in a mentoring relationship with a faculty member. Specific experiences determined by each student's interests and needs. Apprentice teachers participate through observation, supervising group activities, counseling and guiding individual students, organizing and presenting lectures and demonstrations.

Equivalent Courses

RDG565

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

Maximum Hours

4

RDG 6987 Seminar in Reading

Course Info

Course Title

Seminar in Reading

Course Description

Analyzes the validity, reliability, methodology, results, conclusions and implications of research and seminal literature in selected areas of reading and language arts.

Equivalent Courses

RDG630

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Repeat Limit

1

Maximum Hours

4

RDG 6996 Master's Practicum

Course Info

Course Title
Master's Practicum

Course Description
Planning and executing a research study or an educational project focused on reading and the language arts. Student must be admitted to MAT in Reading and Language Arts.

Equivalent Courses
RDG699

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7106 Critical Inquiry

Course Info

Course Title
Critical Inquiry in Reading and Language Arts

Course Description
This course is designed to start with what students "know" and to actively engage them in discussion about what and how they "know." The course focus will then shift to what and how researchers know through exposure to systematic inquiry, research tools, and research studies. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses
RDG706

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7110 Educational Research

Course Info

Course Title

Educational Research in Reading and Language Arts

Course Description

A survey course in educational research methods and their underlying assumptions and procedures as they apply to Reading and Language Arts. Students will read and learn how to critique discipline specific studies representative of the methodologies addressed in the course. Student must be admitted to the Ph.D. program or have permission of instructor.

Equivalent Courses

RDG710

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7204 Perspectives in Lit in LCL

Course Info

Course Title

Perspectives in Literature in Literacy, Culture, and Language

Course Description

Explore the development of literature, literacy, culture and language for children/young adults; adaptation of adult literature to children; trends in content and in illustration; and an examination of classic children’s books. Examine research and critical essays on literary theory, and teaching/use of literature in classrooms. Prerequisite(s): Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

RDG704

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7205 Perspectives in Writing

Course Info

Course Title

Perspectives in Writing

Course Description

Examines research in writing, composition theory, philosophy of writing, the teaching of composition, relationship of composition and comprehension, and other pertinent topics. Opportunities to write poems, narratives and expository pieces. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

RDG705

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 7220 Resrch Dsg/Methods I

Course Info

Course Title

Research Design and Methods I

Course Description

Explore and develop knowledge of diverse literacy research paradigms and gain practical experience in designing, collecting, and analyzing data. Prerequisite (s): Student must be admitted to the Ph.D. program or have instructor's permission.

Equivalent Courses

RDG720

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 7225 Resrch/Dsg Methods II

Course Info

Course Title

Research Design and Methods II

Course Description

Further develop knowledge of diverse literacy research paradigms. Gain practical experience in summarizing findings by applying in-depth analysis and interpretation of data, including the processes of preparing and submitting a manuscript for publication in a peer-reviewed journal. Prerequisite (s): Student must be admitted to the Ph.D. program and meet the prerequisites RDG 7220 or have permission of the instructor.

Equivalent Courses

RDG725

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 7307 Theor Modes & Historic
Perspec

Course Info

Course Title

Theoretical Models and Historical Perspectives in Literacy, Culture, and Language

Course Description

Provide a broad overview of historical and theoretical perspectives and models in literacy, culture and language research and practice. Develop the skills and dispositions required for active participation in the intellectual life of the research community in literacy, culture, and language. Prerequisite (s): Students must be admitted to a Ph.D. program or have the instructor's permission.

Equivalent Courses

RDG707

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

RDG 7403 Adv Diagnstc/Correct Rdg

Course Info

Course Title

Advanced Diagnostic and Corrective Reading

Course Description

Two-semester course wherein doctoral student serves as an instructional assistant to a faculty member who is teaching the master's level diagnosis and correction sequence. Student must be admitted to the Ph.D. program and meet the prerequisites (RDG 632 and RDG 633) or have permission of instructor.

Equivalent Courses

RDG703

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7408 Psychology of Reading

Course Info

Course Title

The Psychology of Reading

Course Description

Explores the acquisition and operation of literacy processes. Focuses on basic research on literacy in cognitive and developmental psychology. Students will gain an understanding of the influences of psychology on reading theory, as well as in-depth knowledge of specific topics in the psychology of reading. Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

RDG708

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7430 Advanced Qualitative Research

Course Info

Course Title

Advanced Qualitative Research Design and Methods in Reading and Language Arts

Course Description

Students will delve more deeply into issues of design, methods, data collection and analysis and credibility issues in different forms of qualitative research. Discourse analysis and designing and undertaking literacy research utilizing mixed methodologies will also be foci of this course. Student must be admitted to the Ph.D. program and meet the prerequisites (RDG 706, RDG 710, and RDG 720) or have permission of the instructor.

Equivalent Courses

RDG730

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7435 Advanced Quantitative Research

Course Info

Course Title

Advanced Quantitative Research Design and Methods in Reading and Language Arts

Course Description

Students will delve more deeply into issues of quantitative design choosing appropriate methods, data collection and analysis procedures, and issues of validity and reliability. Multivariate factorial and repeated measures design and analysis will be explored, along with application of mixed methodologies to literacy inquiry. Student must be admitted to the Ph.D. program and meet the prerequisites (RDG 706, RDG 710, and RDG 725) or have permission of the instructor.

Equivalent Courses

RDG735

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 7928 Ind Investgn Rdg/Lang

Course Info

Course Title

Independent Investigations in Reading and Language Arts

Course Description

Students investigate topics under faculty guidance. Student needs and interests determine topics chosen. Examination of diagnostic, methodological, organizational and administrative issues in reading are encouraged. Student must be admitted to the Ph.D. program or have permission of the instructor.

Equivalent Courses

RDG780

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
2	Max: 8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

RDG 7949 Doctoral Seminar LCL

Course Info

Course Title

Doctoral Seminar in Literacy, Culture, and Language

Course Description

Explore advanced topics in literacy, culture, and language. Important analytical frameworks include critical theory, sociocultural theory, critical race theory, and critical pedagogy. Also examines social equity teaching and culturally sustaining pedagogy in practice. Prerequisite (s): Student must be admitted to Ph.D. program or have permission of instructor.

Equivalent Courses

RDG709

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

RDG 7970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Directed readings for doctoral students on a topic that is not available through regular course offerings. May be taken for a total of 8 credits. Student must be admitted to the Ph.D. program or have permission of instructor.

Equivalent Courses
RDG790

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
2	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

RDG 7995 Research Practicum

Course Info

Course Title
Research Practicum in Reading and Language Arts

Course Description
Students will actively participate in a faculty-sponsored research project. Students must also complete an individual pilot study including a manuscript submission and conference presentation. This course fulfills the residency requirements and may be taken at any time during the doctoral program. Student must be admitted to the Ph.D. program and meet the prerequisites (RDG 706 and RDG 710) or have permission of instructor.

Equivalent Courses
RDG750

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	16	99

RDG 7999 Dissertation Research

Course Info

Course Title

Dissertation Research

Course Description

Preparation of a research project culminating in the doctoral dissertation. Student must be admitted to the Ph.D. program.

Equivalent Courses

RDG799

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	25	99

RDG 9010 Research Methodology

Course Info

Course Title

Research Methodology

Course Description

Considers various modes of research inquiry appropriate to the fields of education and human services. Examines a range of conceptions and strategies in light of students' emerging research interests. Studies tools of research, research planning and design, research methodologies and communication of results of research. Student must be admitted to Ph.D. program or have permission of instructor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 9020 Analytical Methods

Course Info

Course Title

Analytical Methods

Course Description

Offers a variety of research methods for analyzing empirical data. Considers the appropriateness of fit between various analytical procedures and diverse sets of data drawn from a range of settings in education and human services. Examines assumptions underlying different research questions, methods of analysis, statistical designs and procedures, and ways of interpreting data. Student must be admitted to Ph.D. program or have permission of instructor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

RDG 9940 Doctoral Prof Seminar I

Course Info

Course Title

Doctoral Professional Seminar I

Course Description

A forum for advanced level inquiry, discussion and analysis of leadership issues in human services and education from a multi-disciplinary perspective. Examines issues such as human development, knowledge base of education, multiculturalism and diversity as well as implication and application of technology. Student must be admitted to Ph.D. program or have permission of instructor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

RDG 9941 Doctoral Prof Seminar II

Course Info

Course Title

Doctoral Professional Seminar II

Course Description

Provides a forum for additional advanced level inquiry, discussion and analysis of leadership issues in human services and education from a multi-disciplinary perspective. The seminar will examine issues such as human development, knowledge base of education, multi-culturalism and diversity, as well as the implication and applications of technology to the study of these topics. Student must be admitted to Ph.D. program or have permission of instructor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
2

SCI 5110 Ethics and Practice of Science

Course Info

Course Title

Ethics and Practice of Science

Course Description

Ethical issues related to scientific integrity and the consequences of scientific misconduct. Training on the responsible conduct of research and related compliance issues. Focus on oral and written communication related to publications, grants and professional presentations as well as other career-building skills. Formerly SCI 511.

Equivalent Courses

SCI511

College/School

College of Arts and Sciences

Department

Science

Credits

Credit Hours

Units:

2

SE 617 Language Disabilities

Course Info

College/School

College of Arts and Sciences

Department

SE

Credits

Credit Hours

Units:

4

Credit Hours

Max:

0

SE 5500 The Exceptional Student

Course Info

Course Title

The Exceptional Student

Course Description

Introduction to the characteristics, etiologies and instructional and programmatic implications for students with special needs.

Equivalent Courses

SE500

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

SE 5501 Intro Student w/Special Needs

Course Info

Course Title

Introduction to the Student with Special Needs

Course Description

Introduction to special education that presents the characteristics, etiologies and challenges of each of the different clusters of atypical children. Individual differences - interindividual and intraindividual - are stressed. The environment of the learner and curricular and instructional adaptations and accommodations are discussed along with an overview of issues and current research. Prerequisite(s): SE 6503, Graduate standing

Equivalent Courses

SE501

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 5589 Special Education and SLA

Course Info

Course Title

Special Education and Second Language Acquisition

Course Description

Comprehensive information about the process of determining whether a struggling English Learner has an underlying disability or if difficulties are due to lack of language proficiency. Overview of accommodations and interventions that address the needs of at-risk non-native English speakers.Course is cross-listed with ALS 5589

Equivalent Courses

ALS5589

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6502 Legal Issues in Spec Educ

Course Info

Course Title

Legal Issues in Special Education

Course Description

Intensive study of federal legislation and the Michigan Special Education Rules and their implications for educating students with exceptionalities. Evaluation, IEPC's, related services, free and appropriate education, placement options, adequate referral and evaluation, investigation and due process hearings highlighted. Prerequisite(s): Admitted to program.

Equivalent Courses

SE502, SE502P

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SE 6503 Stands/Practs/Research in SE

Course Info

Course Title

Standards, Practices, and Research in Special Education

Course Description

Presents a framework for understanding special education history, theory, research, and practice. Includes special education scope and sequence; introduction to service-learning and E-portfolio expectations. Focus on critical thinking; exploration of research; uses of technology; and refinement of professional interactions, including consideration of diversity.

Equivalent Courses

SE503

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SE 6505 Community Engagement/
Service

Course Info

Course Title

Community Engagement and Service

Course Description

Provides students the opportunity to apply their theoretical understanding of their specific area of study in special education to practical and concrete situations in their communities that affect those with disabilities. Prerequisite(s): SE 6503.

Equivalent Courses

SE505

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

1

Credit Hours

Max:

3

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

SE 6510 Students w/Behavior and/or EI

Course Info

Course Title

Students with Behavioral and/or Emotional Impairment

Course Description

Familiarizes students with definitions, incidence, characteristics, etiology, treatment methods, educational and clinical intervention programs, and outcomes of children and adolescents exhibiting behavioral and emotional disorders. Prerequisite(s): SE 6502; Admitted to program.

Equivalent Courses

SE510

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6517 Lang and Except Child & Youth

Course Info

Course Title

Language and Exceptional Children and Youth

Course Description

Research in the area of language disabilities is covered, with emphasis on assessment and intervention strategies. Both oral and written language are considered, preschool through adult. Prerequisite(s): SE 6502; Admitted to program.

Equivalent Courses

SE517

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6518 Org Mgt of Instruct Behav/Env

Course Info

Course Title

Organization and Management of Instructional Behaviors and Environments

Course Description

Covers behavioral organization and management techniques; including classroom structure, applied behavior analysis, scheduling and evaluation. Other topics will include education strategies for effective teaching, self-management, issues of diversity and behavior, and management of problem behaviors. Prerequisite(s): Admitted to program.

Equivalent Courses

SE518

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6520 Ed Procedures for Students/EI

Course Info

Course Title

Educational Procedures for Students with Emotional Impairment

Course Description

Presents the implementation of effective strategies for academic instruction and classroom management for youth classified with emotional impairment. Various service delivery models, home/community collaborative practices, medication/clinical treatments, prevocational issues, and design and implementation of individual education plans will be discussed. Prerequisite(s): SE 6502, SE 6510 and SE 6518; Admitted to program.

Equivalent Courses

SE520, SE520P

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6521 Srving Stdnts w/Spec Needs

Course Info

Course Title

Serving Students with Special Needs in General Education Classroom

Course Description

Assists regular classroom teachers to better serve children with mild to moderate learning and behavioral problems. Identifying needs through informal assessment, modifying instructional techniques and materials, and documenting and evaluating progress are emphasized in the context of cooperative teaching, response to intervention and inclusion. Prerequisite(s): Graduate standing.

Equivalent Courses

SE521, SE6521P

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

Credit Hours

Max:

4

SE 6521P Serving Students w/ Spec Needs

Course Info

Course Title

Serving Students with Special Needs in General Education Classroom

Course Description

Assists regular classroom teachers to better serve children with mild to moderate learning and behavioral problems. Identifying needs through informal assessment, modifying instructional techniques and materials, and documenting and evaluating progress are emphasized in the context of cooperative teaching, response to intervention and inclusion. Prerequisite(s): Graduate standing

Equivalent Courses

SE6521

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6524 Assessment in Special Educatn

Course Info

Course Title

Assessment in Special Education

Course Description

Provides an overview of the assessment process, including legal, ethical and diversity issues, in school and clinical settings. Students are introduced to a variety of procedures and instruments, role responsibilities, and relevant resources. Students administer, score and interpret information from selected norm-referenced achievement measures. Prerequisite(s): SE 6502, SE 6503; Admitted to program

Equivalent Courses

SE524

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SE 6526 Assessments Across Lifespan

Course Info

Course Title

Assessments for Interventions Across the Lifespan

Course Description

Presents a framework for understanding and practicing assessment for intervention through the lifespan for individuals with ASD. The focus will be on assessment for intervention, behavior, skills, motivation, and quality of life. There will be an emphasis on hands-on assessment. Student must be admitted to the Master of Education in Special Education degree program. Prerequisite(s): Admitted to program.

Equivalent Courses

SE526

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

SE 6527 ASD: Educational Procedures

Course Info

Course Title

Educational Procedures for Students with Autism Spectrum Disorder

Course Description

Evaluation and instruction of students with autism spectrum disorder. Relates informal assessment to instructional planning in the cognitive, motor, and affective domains throughout the life span. Prevocational and vocational planning along with transitional issues and recreational/life skill needs are covered. Prerequisite(s): SE 6559.

Equivalent Courses

SE527, SE553

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SE 6532 Intro/Specific Learning Disab

Course Info

Course Title

Introduction to Specific Learning Disability

Course Description

Provides an introduction to students with a specific learning disability, including history, characteristics, theoretical approaches, and educational implications. The eight legally denied areas of learning disability in terms of characteristics, use of appropriate instructional materials, curricular modifications, and learning strategies addressed.

Equivalent Courses

SE532

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:
4

SE 6533 Adv Ed Proc/Students with SLD

Course Info

Course Title

Advanced Educational Procedures for Students with a Specific Learning Disability

Course Description

Focuses on informal assessment, curricular planning and instructional implementation for students with a specific learning disability. Evidenced-based practices, current teaching strategies and technological resources examined. Prerequisite(s): SE 6532

Equivalent Courses

SE533

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6549 Dev of Young Exceptional Child

Course Info

Course Title

Development of the Young Exceptional Child

Course Description

Overview of child development research applied to exceptional children in early childhood settings. Views the child from a developmental perspective and includes, along with study of normal behaviors in all preprimary children, curriculum strategies for mainstreamed and special education settings.

Equivalent Courses

EC549, SE549

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6550 Intro Autism Spect Disord

Course Info

Course Title

Introduction to Autism Spectrum Disorder

Course Description

Covers definitions, characteristics and etiologies of autism spectrum disorder, including Asperger's, throughout the life span. An overview of instructional methodologies, legal issues and collaboration with families and other professionals is provided.

Equivalent Courses

SE550, SE559, SE6559

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6551 Autism Spec Dis: Commun & Lang

Course Info

Course Title

Autism Spectrum Disorder: Communication and Language

Course Description

Provides an overview of communication, normal and atypical language development, and difficulties associated with autism spectrum disorder. Student must meet prerequisites (SE 559 or SE 550).

Equivalent Courses

SE551, SE578, SE6578

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6552 Behavioral Issues Autism Spec

Course Info

Course Title

Behavioral Issues in Students with Autism Spectrum Disorder

Course Description

Background in behavioral principles, purposes of behavior and historical treatments, along with interventions appropriate for students with autism spectrum disorders addressed. Student must meet prerequisites (SE 559 or SE 550).

Equivalent Courses

SE552, SE579, SE6579

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6554 Collaboration & Consultation

Course Info

Course Title

Collaboration and Consultation

Course Description

Designed to develop collaboration and consultation skills of special education professionals. Includes home-school interactions, family and community support services and resources. Student must meet prerequisites (SE 550 or SE 559).

Equivalent Courses

SE554, SE596, SE6596

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6559 Overview of ASD

Course Info

Course Title

Overview of Autism Spectrum Disorder

Course Description

Characteristics and etiologies of autism spectrum disorders, including Aspergers, throughout the life span. An overview of instructional methodologies, legal issues and collaboration with families and other professionals are introduced. Prerequisite(s): Admitted to program.

Equivalent Courses

SE550, SE559, SE6550

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	2	4

SE 6569 Foundations of ABA

Course Info

Course Title

Foundations of ABA

Course Description

This course focuses on basic principles and the philosophical underpinnings of Applied Behavior Analysis (ABA). Students will identify the goals of behavior analysis as a science, explain the philosophical assumptions underlying the science of behavior analysis, explain behavior from the perspective of radical behaviorism, identify the dimensions of Applied Behavior Analysis (ABA), and explain the basic concepts of operant learning.Student must be admitted to the program. Prerequisite(s): Admitted to program.

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit
NR	3

SE 6570 Concepts and Principles of ABA

Course Info

Course Title
Concepts and Principles of ABA

Course Description
This course focuses on basic concepts and principles of applied behavior analysis (ABA). Students will learn fundamental vocabulary and methodology of the science. In addition, this course will introduce the student to environmental variables that result in behavior change. Student must be admitted to program. Prerequisite(s): SE 6569; Admitted to program.

Equivalent Courses
SE570

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SE 6571 Behavioral Assessment

Course Info

Course Title
Behavioral Assessment

Course Description
This course provides an overview of assessment techniques used in behavioral intervention planning. Specific topics include the history and present use of functional assessments, completion of the functional assessment interview, descriptive and functional analysis, data collection and interpretation, preference assessment, and the interpretation of evaluation tools for various populations. Prerequisite (s): SE 6569, SE6570; Admitted to program. Additional Course Information: In this course students will be expected to read all materials prior to the scheduled class time in order to better understand the class content and participate with the class discussion. Students will be graded on their attendance, presentations, quizzes, assignments, and exams. The instructor will be responsible for preparing lecture and activity based materials to help facilitate learning the course objectives. Topics covered in this course are taught in a specific sequential order. All material builds on previously covered topics. Missing a class will directly impact your ability to understand the next lecture and ultimately impact your overall grade. Students should plan on attending all classes.

Equivalent Courses
SE571

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SE 6572 Behavior Change Procedures

Course Info

Course Title

Behavior Change Procedures

Course Description

In this course, students will learn techniques used in behavioral intervention planning, data collection, interpretation of assessments, development of goals and objectives, overview and application of treatment interventions. Assignments include readings from literature research, weekly quizzes, a group presentation demonstrating knowledge on behavior change procedures, participation in discussions, and examinations on the content. Prerequisite(s): SE 6569; Admitted to program.

Equivalent Courses

SE572

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

SE 6573 Research Methods

Course Info

Course Title

Research Methods

Course Description

This Course includes an overview of research method techniques, theoretical foundations of empirical research, principles of the scientific method, experimental designs, analyses of research designs, research protocol, and formation of research hypothesis. The majority of the course will be devoted to methods related to single-case research (i.e., data collection, logic, designs).Prerequisite(s): SE 6569; Admitted to program.

Equivalent Courses

SE573

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

SE 6574 Ethics

Course Info

Course Title

Ethics

Course Description

An Overview of the responsibilities, values, ethics, and principles of the field of behavior analysis. Assignments include applying professional and ethical compliance codes through literature reviews, paper presentations, weekly quizzes, exams, and participation in well-informed discussions. Prerequisite(s): SE 6569; Admitted to program.

Equivalent Courses

SE574

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

SE 6575 Personnel Sup and Mgmt

Course Info

Course Title

Personnel Supervision and Management

Course Description

Throughout this course, students will learn how to implement empirically supported teaching strategies to train personnel how to competently implement behavior change strategies. Students will learn how to provide effective feedback, model target skills, and assess staff performance. Assignments will include applying information learned through literature reviews, weekly quizzes, exam, and participation in well-informed discussion.Prerequisite(s): SE 6569; Admitted to program.

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SE 6576 Experimental Analysis Behavior

Course Info

Course Title
Experimental Analysis of Behavior

Course Description
This course teaches foundational concepts and principles of behavior analysis. Students will learn about the experimental procedures and findings of basic behavior analysis (i.e., the experimental analysis of behavior [EAB]) and a range of principles such as mechanisms of learning, respondent conditioning, and operant conditioning.

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:
3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SE 6578 ASD: Commun/Language Issues

Course Info

Course Title
Communication and Language Issues in Autism Spectrum Disorder

Course Description
Provides an overview of communication, typical and atypical language development across the life span, along with specific issues in individuals with autism spectrum disorders. Interventions for the development of language and communication are covered. Prerequisite(s): SE 6559; admitted to program

Equivalent Courses
SE551, SE578, SE578P, SE6551

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:
3

Credit Hours Max:
4

SE 6579 ASD: Behavioral/Social Issues

Course Info

Course Title

Behavioral and Social Issues in Students with Autism Spectrum Disorder

Course Description

Overview of behavioral principles, legal and theoretical issues, purposes of behavior and interventions with students with autism spectrum disorder. Emphasis on behavior as communication and constructive behavior plans. Prerequisite(s): SE 6559; Admitted to program.

Equivalent Courses

SE552, SE579, SE6552

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

SE 6596 Collaboration/
Consultation:ASD

Course Info

Course Title

Collaboration and Consultation: Autism Spectrum Disorder

Course Description

Designed to develop collaboration and consultation skills of special education professionals. Includes home- school interactions, family and community support services. Emphasis is on autism spectrum disorder. Prerequisite(s): SE 6559; Admitted to program.

Equivalent Courses

SE554, SE596, SE6554

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SE 6600 Quality of Life

Course Info

Course Title

Quality of Life

Course Description

Presents an overview of the concept of quality of life (QoL) and includes strategies for promoting a life of quality for individuals living with ASD. Reviews the desired Personal Outcomes for adolescents/ adults with ASD that result in an improved Quality of Life.

Equivalent Courses

SE600

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SE 6601 Issues/Trends in Spec Ed

Course Info

Course Title

Issues and Trends in Special Education

Course Description

Study of current major issues in special education. Emphasis is placed on the historical, political, empirical, societal, and educational perspectives of the current/controversial issues in the field. Issues will span the K-12 continuum

Equivalent Courses

SE601

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6616 Consultation Skls Spec Eductr

Course Info

Course Title

Consultation Skills for Special Educators

Course Description

Designed to develop the consultation skills used by special education teachers with members of allied professions and classroom teachers concerning evaluation, remediation and program planning for students with exceptionalities to translate consultations into educational programs. Student must be admitted to M.Ed. or have instructor permission.

Equivalent Courses

SE616

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6619 Theory/Research/Pract/Spec Ed

Course Info

Course Title

Theory, Research and Practice in Special Education

Course Description

Introduces students to the theoretical and empirical foundations of the field of special education and its research methodologies. They will examine elements of experimental and non-experimental research designs with a focus on action research.

Equivalent Courses

SE619

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6620 Adv Intervention Resources/EI

Course Info

Course Title

Advanced Interventions and Resources for Students with Emotional Impairment

Course Description

Focuses on the implementation of advanced methodologies and resources available for intervention with students with emotional impairment. These practices involve non-school related resources, including but not limited to hospitals, community agencies, centers for adjudicated youth, courts and support groups. The effects of medication within the school setting will be discussed, as well as crisis interventions, brief therapy and physical management. Various service delivery models that focus on home/community collaborative and consultative practices will be demonstrated. Prerequisite(s): SE 6510, SE 6520; Admitted to program.

Equivalent Courses

SE620

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6624 Advanced Diagnostics

Course Info

Course Title

Advanced Diagnostics

Course Description

Assumes that students have basic understanding of measurement concepts, have some familiarity with special education assessment in the school setting, and are competent in the administration of at least one norm-referenced achievement measure. Students have the opportunity to explore new instruments and procedures while conducting a comprehensive educational/behavioral assessment with special needs students. Integration of assessment information is emphasized. Student must meet prerequisites (SE 524 or instructor permission).

Equivalent Courses

SE624

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6640 Lives of Adolescent/Adult/ASD

Course Info

Course Title

The Lives of Adolescents and Adults with Autism Spectrum Disorder

Course Description

Overview of the lives of adolescents and adults with an Autism Spectrum Disorder (ASD), including emotional and physical development; gender identity; self-concept; behavioral, social and communicative challenges; transitions to adulthood; employment post-secondary and residential options. Also addresses desired personal outcomes that result in an improved quality of life. Prerequisite(s): SE 6559; Admitted to program.

Equivalent Courses

SE640

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6641 Counseling Issues/Spec Needs

Course Info

Course Title

Counseling Issues for Special Needs

Course Description

The many sociocultural, familial, and personal influences that affect a person with disability are addressed. The course provides the student with a variety of opportunities to explore his/her own attitudes and beliefs about a person with disabilities.

Equivalent Courses

SE641

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6643 Human Motivation/
Organizations

Course Info

Course Title
Human Motivation in Organizations

Course Description
This course provides the principles of applied behavior analysis to professional organizations. The perspective, historical background, methodology and theoretical framework for human behavior in organizations are studied. Provides an understanding of how organizations can manage more effectively while enhancing the quality of employees work life. Prerequisite(s): Admitted to the Master of Education in Special Education program or department permission.

Equivalent Courses
SE643

College/School
School of Ed. and Human Svcs.

Department
Human Development/Child Studies

Credits
Credit Hours

Units:
4

SE 6644 Employ Residential Living: ASD

Course Info

Course Title
Employment Residential Living ASD

Course Description
Provides an in-depth understanding of the concepts related to positive transition to employment and residential living for adolescents and adults with autism spectrum disorder. Focus on community-based vocational training, vocational education systems, residential options, person-centered planning, and impact on families.

Equivalent Courses
SE644

College/School
School of Ed. and Human Svcs.

Department
Human Development/Child Studies

Credits
Credit Hours

Units:	Credit Hours
2	Max: 4

SE 6699 Final Project in Spec Ed

Course Info

Course Title

Final Project in Special Education

Course Description

Planning and execution of significant research or project. The result should be suitable for conference presentation and/or journal submission. Student must meet prerequisite (SE 524) or have instructor permission.

Equivalent Courses

SE699

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Maximum Hours

8

SE 6900 Selected Topics: Special Ed

Course Info

Course Title

Selected Topics in Special Education

Course Description

Special issues related to contemporary practice in special education. May be elected as an independent study, but student must have permission of instructor for this option.

Equivalent Courses

SE590

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	12

SE 6960 Practicum: ASD K-12

Course Info

Course Title

Practicum Field Experience: Autism Spectrum Disorder K-12

Course Description

Final experience required for K-12 endorsement in the area of Autism Spectrum Disorders. Instructional experiences with students with autism required. The specific nature of the experience will be individually determined at the time of the practicum. (Formerly SE 6584/SE6585). Application must be made prior to the semester intended for practicum completion.Prerequisite(s): Student must meet prerequisites (SE 6559, SE6578, SE 6579, SE 6527, and SE 6596).

Equivalent Courses

SE591

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Credit Hours

Max:

5

SE 6961 Prac: Specif Lrning Disab K-12

Course Info

Course Title

Practicum Field Experience: Specific Learning Disability K-12

Course Description

Final experience required for K-12 endorsement in the area of Specific Learning Disabilities. Instruction and assessment experiences with students with specific learning disabilities required. Student must complete practicum application prior to the semester intended for completion.Prerequisite(s): SE 6502, SE 6517, SE 6518, SE 6524, SE 6532, SE 6533 and RDG 5210. Admitted to program.

Equivalent Courses

SE592

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6962 Practicum: EI (K-12)

Course Info

Course Title

Practicum Field Experience: Emotional Impairment K-12

Course Description

Final experience required for K-12 endorsement in the area of Emotional Impairment. Instructional and assessment experiences with students with emotional impairment. Student must complete practicum application prior to the semester intended for completion. Prerequisite(s): SE 6502, SE 6510, SE 6517, SE 6518, SE 6520, SE 6524, SE 6620. Admitted to program.

Equivalent Courses

SE594

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

SE 6963 ABA Fieldwork 1

Course Info

Course Title

ABA Fieldwork 1

Course Description

Complete 20 hours of practicum experience per week (300 hours per semester) at an approved location. Must attend scheduled group and individual supervision sessions. It should be noted that it is the responsibility of both you and your supervisor to schedule weekly supervision meetings. Students are expected to attend individual supervision sessions at their scheduled time. Students will be graded on their participation, completion of assignments and demonstration of knowledge in application as well as during supervisory meetings. Prerequisite(s): SE 6569, Admitted to program.

Equivalent Courses

SE511

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SE 6964 ABA Fieldwork 2

Course Info

Course Title

ABA Fieldwork 2

Course Description

Complete 20 hours of practicum experience per week (300 hours per semester) at an approved location. Must attend scheduled group and individual supervision sessions. It should be noted that it is the responsibility of both the student and student's supervisor to schedule weekly supervision meetings. Additional Course Information: Students will be graded on their participation, completion of assignments and demonstration of knowledge in application as well as during supervisory meetings. Prerequisite(s): SE 6569, Admitted to program.

Equivalent Courses

SE512

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SE 6965 ABA Fieldwork 3

Course Info

Course Title

ABA Fieldwork 3

Course Description

Complete 20 hours of practicum experience per week (300 hours per semester) at an approved location. Must attend scheduled group and individual supervision sessions. It should be noted that it is the responsibility of both the student and student's supervisor to schedule weekly supervision meetings. Additional Course Information: Students will be graded on their participation, completion of assignments and demonstration of knowledge in application as well as during supervisory meetings. Prerequisite(s): Admitted to program

Equivalent Courses

SE513

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SE 6966 ABA Fieldwork 4

Course Info

Course Title

ABA Fieldwork 4

Course Description

Complete 20 hours of practicum experience per week (300 hours per semester) at an approved location. Must attend scheduled group and individual supervision sessions. It should be noted that it is the responsibility of both you and your supervisor to schedule weekly supervision meetings. Students are expected to attend individual supervision sessions at their scheduled time. Students will be graded on their participation, completion of assignments and demonstration of knowledge in application as well as during supervisory meetings.

Equivalent Courses

SE514

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

SE 6967 ABA Fieldwork 5

Course Info

Course Title

ABA Fieldwork 5

Course Description

Complete 20 hours of practicum experience per week (300 hours per semester) at an approved location. Must attend scheduled group and individual supervision sessions. It should be noted that it is the responsibility of both you and your supervisor to schedule weekly supervision meetings. Students are expected to attend individual supervision sessions at their scheduled time. Students will be graded on their participation, completion of assignments and demonstration of knowledge in application as well as during supervisory meetings.

Equivalent Courses

SE515

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

SE 6970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Students conduct an in-depth study of one or more topics in special education under the supervision of a faculty member. Student must be admitted to the master's program.

Equivalent Courses
SE599

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	6	8

SE 6975 Exp Learning Project 1

Course Info

Course Title
Experiential Learning/ Exit Project 1

Course Description
This course is designed to develop skills in professional practice or research. Students will work to complete a exit project activity or equivalent as part of this course. Students will develop competence in defining a research or clinically relevant problem, designing a method to address the problem, and conducting and reporting an investigation that carries out the method to conclusion.

College/School
School of Ed. and Human Svcs.

Department
Human Developmnt/Child Studies

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

SE 6976 Exp Learning Project 2

Course Info

Course Title

Experiential Learning/Exit Project 2

Course Description

This course is designed to develop skills in professional practice or research. Students will work to complete a exit project activity or equivalent as part of this course. Students will develop competence in defining a research or clinically relevant problem, designing a method to address the problem, and conducting and reporting an investigation that carries out the method to conclusion.

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

SE 6977 Exp Learning Project 3

Course Info

Course Title

Experiential Learning/Exit Project 3

Course Description

This course is designed to develop skills in professional practice or research. Students will work to complete a exit project activity or equivalent as part of this course. Students will develop competence in defining a research or clinically relevant problem, designing a method to address the problem, and conducting and reporting an investigation that carries out the method to conclusion.

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

SE 6978 Exp Learning Project 4

Course Info

Course Title

Experiential Learning/Exit Project 4

Course Description

This course is designed to develop skills in professional practice or research. Students will work to complete a exit project activity or equivalent as part of this course. Students will develop competence in defining a research or clinically relevant problem, designing a method to address the problem, and conducting and reporting an investigation that carries out the method to conclusion. Students final project will be completed during this semester.

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SE 9970 Ind Stdy: Special Ed

Course Info

Course Title

Independent Study in Special Education

Course Description

Students conduct an in-depth study on a topic in special education with supervision by a faculty member. Student must be admitted to the Ph.D. program.

Equivalent Courses

SE750

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

2

Credit Hours

Max:

6

Repeat Rules

Repeat Status Code

RP

Maximum Hours

6

SE 9972 Special Ed EC Seminar

Course Info

Course Title

Special Education: Early Childhood Seminar

Course Description

A study of developmental delays, at-risk children and the effects of handicapping conditions. Emphasis is on ecological and curricular modifications required to promote cognitive, language, motor, personal and social development based on children's individual needs. Family-centered intervention models are stressed. Student must be admitted to the Ph.D. program or have instructor permission.

Equivalent Courses

SE861

College/School

School of Ed. and Human Svcs.

Department

Human Developmnt/Child Studies

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SED 5000 Foundations 1

Course Info

Course Title

Foundations 1: Introduction to Secondary Education

Course Description

This course serves as an introduction to secondary education and how learning, teaching and schools are considered in the United States. This course meets the requirements of an Oakland University Writing Intensive in General Education (WIGE) course.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

SED 5100 Teaching for Diversity, Equity

Course Info

Course Title

Teaching for Diversity, Equity and Inclusion in Secondary Schools

Course Description

This course will help students understand that educators must enact principles of social justice in their classrooms, schools, and communities by focusing on the intellectual, social, and emotional development of all students, while supporting human rights for all, teaching for equity, and collaborating with professionals, students, families, and the community.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

SED 5110 Instruction 1

Course Info

Course Title

INSTRUCTION 1: Introduction to Secondary Methods

Course Description

Emphasizes the development of core teaching practices, content understanding. Topics include: Curriculum Design and Assessment.

Equivalent Courses

SED527

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

SED 5150 How People Learn

Course Info

Course Title

How People Learn: A Focus on Adolescence

Course Description

What are the main factors facilitating learning, growth, and development during adolescence? The course covers principles from developmental psychology and the learning sciences with focused attention on adolescence. Using an equity-focused lens, teacher candidates apply concepts to determine how to optimally support all learners within middle and high school settings.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

3

SED 5210 Instruction 2: Methods in Disc

Course Info

Course Title

Instruction 2: Methods in the Discipline

Course Description

Develops specific knowledge, competencies and skills required for effective teaching in the student’s major field. Field placement required. Prerequisite(s): Admission to Secondary Education and internship placement.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SED 5600 Foundations 2

Course Info

Course Title

Foundations 2: Supporting Learning through Skillful Teaching

Course Description

Seminar three addresses five questions. At my current placement: How are legal issues surrounding education addressed? What is my reflection regarding how I teach students with special needs? Which aspects of a democratic classroom are present ? How is technologyintegrated in meaningful ways? Prerequisite(s): SED 5100

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SED 5650 Foundations 3

Course Info

Course Title

Foundations 3: Developing as a Professional

Course Description

This culminating team-taught seminar for student teaching addresses five questions: Which aspects of a productive, democratic, culturally responsive classroom did I implement? How did I include students with special needs in my instruction? What were successful ways that I integrated technology? What characteristics of professional conduct did I demonstrate? Prerequisite(s): SED 5600

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	3

SED 5955 Student Teaching Internship

Course Info

Course Title

Student Teaching Internship

Course Description

This course allows pre-service teachers to apply the knowledge, skills, and dispositions they have developed in order to grow in the areas of planning, instruction, assessment, and building relationships. Interns will work with their mentor teachers and transition into full-time teaching responsibilities, while being supervised by an Oakland University supervisor.

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

6

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
6

SED 6000 Instruction 3: Adv Instruction

Course Info

Course Title

Instruction 3: Advanced Instruction

Course Description

Learning to teach secondary students is a challenging and deeply rewarding endeavor. Since this course occurs after student teaching, you have already experienced a sustained lead teaching experience with students in high school and middle school classrooms. This class will continue your learning adventure along this path, but since teaching is more of a journey than a destination, our learning far from complete. This course helps teachers develop specific knowledge, competencies and skills required for effective teaching in the student’s major field. Two specific areas of instructional improvement drive this course: (1) advanced disciplinary teaching methodologies and (2) advanced methodologies to improve educational diversity, equity, and inclusion. Prerequisite(s): SED 5210

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

SOC 5000 Sociological Theory

Course Info

Course Title

Theories of Society and Culture

Course Description

Acquaints students with the major theoretical foundations of modern sociology. Formerly SOC 500.

Equivalent Courses

AN500, SOC500

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SOC 5020 Spec Fld Techn Soc Rsrch

Course Info

Course Title

Specialized Field Techniques of Social Research

Course Description

Prepares students in the following areas: research information storage and retrieval, field research instrumentation (photography, cinematography, video and audio recording, field computers), use of archives and data banks, plus participant observation, ethnomethodology and semantic analysis. Formerly SOC 502.

Equivalent Courses

AN502, SOC502

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SOC 5140 Social Contxt Social Wrk

Course Info

Course Title

Social Context of Social Work

Course Description

A study of the social work profession and the social context of welfare policies; the relationships between social structure and the development of social work practice, and public and private welfare organizations. Formerly SOC 514.

Equivalent Courses

SOC514

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SOC 5270 Police & Society

Course Info

Course Title

Police and Society

Course Description

A study of police techniques and problems, of deviant citizen-police relations and of social control in a field where power is high and visibility is relatively low. Formerly SOC 527.

Equivalent Courses

SOC527

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SOC 5370 Sociology of the Courts

Course Info

Course Title

Sociology of the Courts

Course Description

The roles of judges, court officers, jury and attorneys are described and analyzed in the context of their professional matrix. Formerly SOC 537.

Equivalent Courses

SOC537

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

STA 5001 Stat Methods in Res and Prod

Course Info

Course Title

Stat Methods in Res and Prod

Course Description

Descriptive statistics - graphical and quantitative, confidence limits and statistical tests, sample size requirements, linear regression and correlation, multiple and curvilinear regression, count data and contingency tables, control charts, sampling and specifications. This course does not count toward the M.S. in Applied Statistics. Formerly STA 501. Required background: A first course in calculus.

Equivalent Courses

STA501

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5002 Applied Linear Models I

Course Info

Course Title

Applied Linear Models I

Course Description

Review of basic results from probability and statistics, linear regression, model testing and transformations, matrix methods in multiple regression, polynomial regression, indicator variables, basics of experimental design, one-way ANOVA with fixed and random effects, multiple comparisons, and randomized blocks. Required background: a first course in statistics. Prerequisite: STA 5001. STA 5002 is cross-listed with an undergraduate course, STA 4002. Student may not receive credit for both courses.

Equivalent Courses

STA502

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5003 Applied Linear Models II

Course Info

Course Title

Applied Linear Models II

Course Description

Multi-way ANOVA, randomized block and Latin square designs, incomplete blocks, factorial and fractional factorial designs, random and mixed-effects models, response surface methods, introduction to generalized linear models. Prerequisite: STA 5002. STA 5003 is cross-listed with an undergraduate course, STA 4003. Student may not receive credit for both courses.

Equivalent Courses

STA503

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5006 Statistical Computing

Course Info

Course Title

Statistical Computing

Course Description

Floating point calculations, approximating probabilities and quantiles, random number generation for simulation, variation analysis, computational linear algebra, methods for linear models, simulated annealing, optimization and methods for nonlinear models, static and dynamic graphical methods for data analysis, and presentation graphics. This is not a course in how to use statistical packages. Student must have knowledge of a programming language. Prior (STA 506)

Equivalent Courses

STA506

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5113 Intro Mathematical/Stats I

Course Info

Course Title

Introduction to Mathematical Statistics I

Course Description

Distribution of random variables, conditional probability and stochastic independence, special distributions, functions of random variables. Required background includes courses in linear algebra, multivariable calculus, and introductory statistics. STA 5113 is cross-listed with an undergraduate course, STA 4113. Student may not receive credit for both courses.

Equivalent Courses

STA513

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Repeat Limit

1

STA 5114 Intro Mathematical/Stats II

Course Info

Course Title

Introduction to Mathematical Statistics II

Course Description

The distribution of random variables, conditional probability and stochastic independence, special distributions, functions of random variables, interval estimation, sufficient statistics and completeness, point estimation, tests of hypothesis and analysis of variance. STA 5114 is cross-listed with an undergraduate course, STA 4114. Student may not receive credit for both courses.

Equivalent Courses

STA514

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5221 Multivariate Stat Methods I

Course Info

Course Title

Multivariate Statistical Methods II

Course Description

Samples from multivariate normal distribution, tests of hypotheses on means, multivariate analysis of variance, multiple comparisons, independence of sets of variates, canonical correlations, principal components, factor analysis. Prior (STA 521)

Equivalent Courses

STA521

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5224 Discrete Data Analysis

Course Info

Course Title

Discrete Data Analysis

Course Description

Models for count data, goodness of fit statistics, association and agreement measures, matched samples, ordinal variables, association in multidimensional tables, loglinear and logit models. STA 5224 is cross-listed with an undergraduate course, STA 4224. Student may not receive credit for both courses.

Equivalent Courses

STA504

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5225 Stochastic Processes I

Course Info

Course Title

Stochastic Processes I

Course Description

Random walk models, Markov chains and processes, birth and death processes, queuing processes, diffusion processes and non-Markov processes. STA 5225 is cross-listed with an undergraduate course, STA 4225. Student may not receive credit for both courses.

Equivalent Courses

STA515

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

STA 5226 Nonparametric Methods

Course Info

Course Title

Nonparametric Methods

Course Description

Permutation and rank tests for location and scale, bootstrapping, power of competing tests, confidence intervals, nonparametric regression and analysis of variance methods, density estimation. STA 5226 is cross-listed with an undergraduate course, STA 4226. Student may not receive credit for both courses.

Equivalent Courses

STA526

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5227 Linear Statistical Models

Course Info

Course Title

Linear Statistical Models

Course Description

General linear model, multivariate normal, regression and design models, variance components. Formerly STA 527. Prerequisite: STA 5002. Prerequisite or Corequisite: STA 5114 or STA 6114.

Equivalent Courses

STA527

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5228 Reliability and Life Data I

Course Info

Course Description

Failure models, estimation procedures for exponential, Weibull, gamma and lognormal distributions, hypothesis testing, sample size determination, accelerated life testing. Formerly STA 528. Prerequisite: STA 5002. Prerequisite/Corequisite: STA 5114.

Equivalent Courses

STA528

College/School

College of Arts and Sciences

Department

STA

Credits

Credit Hours

Units:

4

STA 5229 Stat Methods in Sample Surveys

Course Info

Course Title

Statistical Methods in Sample Surveys

Course Description

Simple random sampling, stratified sampling, systematic sampling, cluster sampling, sub-sampling, probabilities proportional to size sampling; estimation of parameters; applications. Student must meet prerequisite (STA 5001) or have permission of instructor. Prior (STA 529)

Equivalent Courses

STA529

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5330 Time Series I

Course Info

Course Title

Time Series I

Course Description

Introduction to and characteristics of autoregressive moving average models; autocorrelation functions, modeling, estimation and forecasting; deterministic and stochastic trends and seasonality; forecasting from regression, spectral analysis, multivariate models, GARCH models, applications to actuarial, financial, economic, and other data sets. Required background includes courses in mathematical statistics and linear models. STA 5330 is cross-listed with an undergraduate course. Students cannot receive credit for both STA 5330 and STA 4330. Prerequisite: STA 5114 Formerly STA 530

Equivalent Courses

STA530

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5331 Bayesian Data Analysis

Course Info

Course Title

Bayesian Data Analysis

Course Description

Introduction to the Bayesian approach to data analysis and decision making. Model building, priors, likelihoods, posteriors, inference, and Markov Chain Monte Carlo simulation methods. Prior (STA 531)
Prerequisite: STA 5113

Equivalent Courses

STA531

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 5332 Reliability and Life Data Anal

Course Info

Course Title

Reliability and Life Data Analysis I

Course Description

Failure models, estimation procedures for exponential, Weibull, gamma and lognormal distributions, hypothesis testing, sample size determination, accelerated life testing. Prerequisite: STA 5002, Corequisite: STA 5114

Equivalent Courses

STA5228

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

STA 5905 Special Topics

Course Info

Course Title

Special Topics

Course Description

Study of some topics in statistics. May be taken more than once.
Prerequisite(s): Student must have permission of instructor. Prior (STA 505)

Equivalent Courses

STA505

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:	Credit Hours Max:
1	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

STA 5920 Directed Reading and Research

Course Info

Course Title

Directed Reading and Research

Course Description

Reading and independent research activities under faculty supervision. Student must have permission of the graduate coordinator Prior (STA 590)

Equivalent Courses

STA590

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

STA 5921 Statistical Consulting

Course Info

Course Title

Statistical Consulting

Course Description

Reading and independent research activities under faculty supervision. Student must have permission of the graduate coordinator. Prior (STA 595)

Equivalent Courses

STA595

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

STA 6003 Adv Design of Experiments

Course Info

Course Title

Advanced Design of Experiments

Course Description

Introduction to response surface methodology; graduating functions; least squares for response surface work; the use of steepest ascent to achieve process improvement; fitting second order models; adequacy of estimation and the use of transformations; exploration of maxima and ridge systems with second order response surfaces; links between empirical and theoretical models; response surface methods in parameter design. Prior (STA 603) Prerequisite STA 5003

Equivalent Courses

STA603

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6110 Probability Theory

Course Info

Course Title

Probability Theory

Course Description

Borels fields, probability, Lebesgue, Lebesgue-Stieltjes and counting measures, random variables, Radon-Nikodym theorem, independent events, product spaces, probability inequalities, conditional probability, generating functions, modes of convergence, central limit theorems, empirical distribution function. Formerly STA 610.
Prerequisite: MTH 5551.

Equivalent Courses

STA610

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6113 Mathematical Statistics I

Course Info

Course Description

Random variables, univariate distributions and their interrelations, expectation, moments, generating functions, exponential families, location and scale families; joint, marginal, and conditional distributions; independence, hierarchical and mixture models, covariance and correlation, random sample, convergence concepts, sampling from normal distributions, exact sampling distributions, order statistics. Required background: a course in advanced calculus. Formerly STA 613.

Equivalent Courses

STA613

College/School

College of Arts and Sciences

Department

STA

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	3	4

STA 6114 Mathematical Statistics II

Course Info

Course Title

Mathematical Statistics II

Course Description

Statistical models; methods of estimation; comparison of estimates; optimality theory; optimal tests and confidence intervals; linear models, decision theory. Formerly STA 614. Prerequisite: STA 6113.

Equivalent Courses

STA614

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6115 Stochastic Processes II

Course Info

Course Title

Stochastic Processes II

Course Description

Markov chains, random walks, pure birth process, Poisson processes, birth and death processes, renewal theory, models of epidemic and accident occurrences, diffusion processes, queuing models, applications in biological and physical sciences. Formerly STA 615. Prerequisites: STA 5225 and STA 6113.

Equivalent Courses

STA615

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6221 Multivariate Stat Methods II

Course Info

Course Description

Analysis of repeated measures data; analysis with missing data; EM algorithm; covariance structures; directional data analysis; discrimination and pattern recognition; advanced clustering methods. Student must meet prerequisite or have instructor permission. Formerly STA 621. Prerequisite: STA 5221.

Equivalent Courses

STA621

College/School

College of Arts and Sciences

Department

STA

Credits

Credit Hours

Units:

4

STA 6228 Reliability and Life Data II

Course Info

Course Title

Reliability and Life Data Analysis II

Course Description

Review of life distributions; point process models, system structure, system reliability, cost models and maintenance policies, reliability growth, competing risks, statistical methods for repairable system data, Bayesian methods, sequential methods. Formerly STA 628. Prerequisite: STA 5228.

Equivalent Courses

STA628

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6330 Time Series II

Course Info

Course Title

Time Series II

Course Description

Multivariate autoregressive moving average time series. Model building and forecasting. Multivariate special analysis. Canonical analysis and principal components for multivariate time series. Other special topics in time series. Formerly STA 630. Prerequisite: STA 5330.

Equivalent Courses

STA630

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

4

STA 6945 Problem Solving Seminar

Course Info

Course Title

Problem Solving Seminar

Course Description

Applied problems and solutions using advanced statistical methods presented by students and faculty. Each Ph.D. student is required to earn at least three credits in the Problem Solving Seminar. Student must have permission of the graduate coordinator. Previously STA 695

Equivalent Courses

STA695

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status Code

RP

Repeat Limit

2

STA 9999 Doctoral Dissertation
Research

Course Info

Course Title

Doctoral Dissertation Research

Course Description

Research activities leading to the doctoral dissertation. Student must have permission of the graduate coordinator. Formerly STA 790.

Equivalent Courses

STA790

College/School

College of Arts and Sciences

Department

Mathematics and Statistics

Credits

Credit Hours

Units:	Credit Hours Max:
1	12

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	99

SW 5000 Intro to Generalist Practice

Course Info

Course Title

Introduction to Generalist Practice

Course Description

This course is an introductory course to the social work profession. The course provides an overview of the history and development of the profession, roles and obligations of MSW social workers the values and ethics, the foundations of knowledge and competencies necessary for practitioners, all sizes of systems and populations. Prerequisite (s): Bachelor's degree

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:
4

SW 5100 FDTNs of Generalist Pract I

Course Info

Course Title

Foundations of Generalist Practice I

Course Description

This course provides content in the knowledge and skills for generalist social work practice with individuals, families, and groups, including professional roles, communication and interviewing theory, skill development in assessment, intervention and evaluation. Students use evidence-based practice and culturally-informed techniques in defining problems, determining need, establishing goals and assessing outcomes. Prerequisite (s): Degree admission to MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5101 Human Behav/Social Environ I

Course Info

Course Title

Human Behavior and the Social Environment I

Course Description

This course explores theories and knowledge of human behavior and bio-psycho-social-spiritual development from birth to adolescence from a generalist social work perspective, including how the micro, mezzo, and macro systems impact behavior. Attention is given to the role of culture, race, ethnicity, social class, gender, age, ability, and sexual orientation. Prerequisite (s): Degree admission to MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5102 Social Welfare Policies

Course Info

Course Title

Social Welfare Policies

Course Description

This course surveys social welfare institutions within the context of the social problems they address. Frameworks for analyzing social policies and evaluating programs comparing the social work profession, the principles of social and economic justice, and the historical, economic and political factors which impinge on policy are addressed. Prerequisite (s): Degree admission to the MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5200 FDTNs of Generalist Pract II

Course Info

Course Title

Foundations of Generalist Practice II

Course Description

This course provides continued social work practice foundation content emphasizing developing generalist knowledge and skill at the group, organizational, community and societal levels. Emphasizes material on group process, and organizational and community leadership in the development of a problem-solving model for work with systems of all sizes. Prerequisite (s): SW 5100

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5201 Human Behav/Social Environ II

Course Info

Course Title

Human Behavior in The Social Environment II

Course Description

Explores theories and knowledge of human behavior and bio-psycho-social-spiritual development from adolescence to late adulthood from a generalist social work perspective, focusing on micro, mezzo, and on cultural and social systems and impact on behavior and development. Culture, race, ethnicity, social class, gender, and sexual orientation in human development and behavior are explored. Prerequisite (s): SW 5101

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5202 Fundamentals of Soc Work Resea

Course Info

Course Title

Fundamentals of Social Work Research

Course Description

This course introduces students to the components of quantitative and qualitative research methods and describes how research is designed to conduct studies which seek to improve social work practice. Introduces the basic concepts of the social work research process as well as the methods that are employed. Prerequisite (s): Admission to MSW program or instructor's permission.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5330 Crisis Response

Course Info

Course Title

Crisis Response

Course Description

This course will assist students to gain a foundational understanding of common crisis issues and learn how to assist individuals experiencing crisis or distress related to suicidal thoughts or behavior, mental illness, substance use, and other scenarios exceeding and overwhelming a person's coping abilities. It will allow students to learn and practice the latest skills and techniques for handling crisis situations. Core components include considerations for an equitable and culturally responsive approach to crisis intervention, a trauma informed approach to crisis, and evidence-based approaches to working with individuals, families, and communities in crisis. Must be admitted to the MSW degree program

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

2

SW 5430 Trauma-Informed Social Work

Course Info

Course Title

Trauma-Informed Social Work

Course Description

Introduces beginning skills of helping individuals, families and groups within a trauma-informed, strengths-based framework. Addresses the numerous facets of trauma informed social work practice including the short and long term psychosocial, physical, cognitive, neurochemical, and physiological impact of personal, interpersonal, generational, cultural, and societal trauma including war, family crisis, violence, natural disasters, and terrorism. Interventions will be discussed at length. Prerequisite(s): Admission in MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SW 5435 Assess. & Diag. Anx. Disorders

Course Info

Course Title

Assessing and Diagnosing Anxiety Disorders

Course Description

This course will focus on how humans experience and respond to anxiety. The course will provide students with an understanding of the biological, psychological, and sociological components of anxiety along with ways it can be managed. Obsessive-compulsive and related disorders along with trauma disorders will be covered as well. Additionally, a focus on how COVID-19 is contributing to secondary traumatic stress among first-responders, health care providers, and family caregivers. Students will also earn a certificate in mental health first aid as part of this course and gain competence in the use of the SAFER-R model of crisis intervention. Prerequisite(s): Admission in the MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SW 5440 Advance Practice with Groups

Course Info

Course Title

Advance Practice with Groups

Course Description

The course is designed to enable students to become more knowledgeable and skillful as direct practice group workers. This course is designed to provide students with knowledge and skills relevant to group work practice across all areas of direct practice. Students learn basic information through course readings, lectures, and experiential exercises and apply this information about social interventions with groups to their specific areas of interest. This course builds on the human behavior and practice foundation courses.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

SW 5500 Advan Generalist Seminar Bridg

Course Info

Course Title

Advanced Generalist Seminar Bridge Course

Course Description

This course promotes a smooth transition from generalist baccalaureate social work programs to the advanced generalist curriculum of Oakland University Advanced Standing program. The knowledge, skills and values learned at the undergraduate level will be reviewed and supplemented, to prepare Advanced Standing students to begin their advanced year. Prerequisite (s): Degree admission to the Advanced Standing MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

SW 5630 Adv SW Prac in Behav Hlth I

Course Info

Course Title

Advanced Social Work Practice in Behavioral Health I

Course Description

Introduces students to the direct practice of integrated behavioral health in primary care. Students will become knowledgeable of the roles of behavioral health providers, theories and models of care, and cross-cultural issues. They will develop skills in engagement, assessment, intervention planning and implementation, and practice evaluation. Prerequisite (s): Admission into MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SW 5640 Adv SW Prac in Behav Hlth II

Course Info

Course Title

Advanced Social Work Practice in Behavioral Health II

Course Description

The content of the course reflects the values of the profession and focuses on the role of the "social policy practitioner" in assisting individuals in the maintenance or attainment of optimal health and mental health, social and economic justice, and recovery and wellness. Prerequisite(s): Admission into MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SW 5730 Program Development & Evaluati

Course Info

Course Title

Program Development & Evaluation

Course Description

Offers a comprehensive approach to the practice of program development and evaluation research with regard to social welfare programs and policies It is organized around a variety of methods for planning, evaluating, and assessing social interventions in order to understand and improve their efficacy. Prerequisite (s): Degree admission to the MSW program or instructor's approval.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5740 Community Organizing

Course Info

Course Title

Community Organizing

Course Description

Introduces students to the methods and perspectives of activism, advocacy and community organizing. Knowledge of community organizing and advocacy strategies becomes critical for social work and community practitioners. Organizing, advocacy, and action strategies will be shared and assessed particularly as they pertain to matters of cultural democracy and social change. Prerequisite (s): Admission to the MSW program or instructors' approval.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5830 Policy/Pract of School SW Educ

Course Info

Course Title

Policy and Practice of School Social Work in Educational Settings

Course Description

Focuses on the knowledge, skills and values appropriate for social work practice within the school setting. This advanced level practice course is designed to provide students with an overview of contemporary social work practice in school settings. Prerequisite (s): Admission into MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 5835 Diagn. & Asmt Mental Hlth/ Edu

Course Info

Course Title

Diagnosis & Assessment of Mental Health and Educational Disabilities in School Social Work

Course Description

Introduces direct practice of school social work in an education setting. Students will develop an understanding of the diagnostics, assessment and testing of children in an educational setting. In addition, students will explore theories related to child psychopathology and the impact of mental health and educational disabilities on children and families. Prerequisite (s): Admission into MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

SW 5840 Soc Work Interventions Educ Se

Course Info

Course Title

Social Work Interventions in an Educational Setting

Course Description

Builds upon the foundational knowledge of school social work and prepares students for implementing effective social work interventions. Students will develop, increase and/or enhance pertinent resources for social work services and interventions that include multidisciplinary and interdisciplinary approaches to help address student and school-based problems. Prerequisite (s): Admission to the MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

SW 5905 Special Topic in Social Work

Course Info

Course Title

Special Topic in Social Work

Course Description

Examines issues and concerns important to the social work profession not ordinarily covered in other courses. Offered in response to the special interests of faculty and students. Topic(s) to be announced in advance of registration. This course offers specialized instruction using a variable format in an advanced social work relevant subject. Prerequisite (s): Degree admission to the MSW program or instructor's approval.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit

99

Maximum Hours

999

SW 5950 Social Work Practicum I

Course Info

Course Title

Social Work Practicum I

Course Description

The first part of a course series that allows interns the opportunity to build, apply, and integrate training and evidence-based interventions within a setting and classroom. An internship of 225 hours for supervised periods of observation and direct service in generalist social work is required.Prerequisite (s): Degree admission to the MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SW 5951 Social Work Practicum II

Course Info

Course Title

Social Work Practicum II

Course Description

The second part of a course series that allows interns the opportunity to build, apply, and integrate training and evidence-based interventions within a setting and classroom. An internship of 225 hours for supervised periods of observation and direct service in generalist social work is required.Prerequisite (s): SW 5950

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SW 5996 Independent Study and Research

Course Info

Course Title

Independent Study and Research

Course Description

This course allows students the opportunity to pursue a topic in depth under the guidance of a faculty supervisor. Students interested in this course can approach a faculty member and request sponsorship or solicit the advice of their departmental advisor or chairperson, who can assist in identifying possible faculty sponsors. Prerequisite (s): Admission to MSW program and Permission of Instructor.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	9	99

SW 6100 Adv Pract with Indv, Fam, Grps

Course Info

Course Title

Advanced Practice with Individuals, Families and Groups

Course Description

This course develops the advanced practice competencies needed for intervention with individual, families and group clients. Evidence-based theories and practice intervention strategies are applied. Advanced practice skills in work with clients, families and groups from diverse backgrounds. Prerequisite (s): SW 5200 or SW 5500.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 6101 Cultural Humility in SW Prac

Course Info

Course Title

Cultural Humility in Social Work Practice

Course Description

This course examines the impact of culture, race and ethnicity on client/worker interactions, presents practice theories and interventions for culturally competent advanced practice with different populations, and emphasizes experiential learning of cultural competence skills to provide services cross-culturally. Prerequisite(s): SW 5102 or degree admission to the Advanced Standing MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
2

SW 6102 Applied Social Work Research

Course Info

Course Title

Applied Social Work Research

Course Description

This course prepares students to be ethical practitioners who assess the benefits of social work interventions on an ongoing basis.

Because of the importance of evaluation in social work, students develop the research skills needed to evaluate their own practice, conduct program evaluations, use the computer as a research tools.

Prerequisite (s): Degree admission to the Advanced Standing MSW program or SW 5202.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 6200 Advanced Practice

Course Info

Course Title

Advanced Practice with Organizations and Communities

Course Description

This course develops the advanced practice competencies needed for administrative and supervisory intervention with organizations and communities. Evidence-based theories and practice intervention strategies are applied. Provides advanced practice skills in administrating, leading and managing organizations, and intervening with diverse communities. Prerequisite(s): SW 6100

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

SW 6202 Policy II: Advocacy and Change

Course Info

Course Title

Policy II: Advocacy and Change

Course Description

This course provides students with advanced generalist skills, knowledge and ethics for advanced policy practice roles within social agencies, communities and political arenas. Examines the history, strategies and approaches to advocacy and policy/program planning and development. Students demonstrate advanced skills in working with communities and policy processes on multiple levels. Prerequisite (s): SW 5202 or degree admission to the Advanced Standing MSW Program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code

NR

SW 6330 Adv Clinical SW Mod Interv

Course Info

Course Title

Advanced Clinical Social Work Modalities and Interventions

Course Description

This course focuses on knowledge and skills necessary for clinical social work practice in therapeutic settings with individual clients across the lifespan. The course draws from applicable theoretical bases and builds on foundational skills addressed in SW 5100. This course will address engagement through termination with individual clients, emphasizing broad and specific approaches to clinical assessment and interventions. Students will be exposed to practice with several treatment models grounded in current research with diverse populations in varied contexts.Prerequisite: SW 5100

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

SW 6950 Social Work Practicum III

Course Info

Course Title

Social Work Practicum III

Course Description

The third part of a course series that allows interns the opportunity to build, apply, and integrate training and evidence-based interventions within a setting and classroom. An internship of 225 hours for supervised periods of observation and direct service in advanced generalist social work is required. Prerequisite (s): SW 5951 or degree admission to the advanced standing MSW program.

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SW 6951 Social Work Practicum IV

Course Info

Course Title

Social Work Practicum IV

Course Description

The fourth part of a course series that allows interns the opportunity to build, apply, and integrate training and evidence-based interventions within a setting and classroom. An internship of 225 hours for supervised periods of observation and direct service in advanced generalist social work is required. Prerequisite (s): SW 6950

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

4

SW 6995 Apprentice College Teaching

Course Info

Course Title

Apprentice College Teaching

Course Description

The Social Work program offers students by “invitation only” the opportunity to receive credit (SW 6995) to serve as an apprentice in college teaching. This experience entails supervised participation in teaching an undergraduate course in social work, combined with readings or discussion of teaching objectives and pedagogical methods. Specific duties vary by professor. However, the student apprentice is not responsible for grading other students. Prerequisite (s): Invitation only

College/School

College of Arts and Sciences

Department

Soc, An, Social Work, CJ

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

SYS 5402 System Optimization & Design

Course Info

Course Title

Systems Optimization and Design

Course Description

Classical optimization techniques including Lagrange multipliers and Kuhn-Tucker conditions. Computer techniques for system optimization including linear programming, constrained and unconstrained nonlinear programming. Introduction to global optimization, genetic algorithm, and dynamic programming. The course emphasizes a design experience involving system modeling, simulation and optimal design. Formerly SYS 510.

Equivalent Courses

SYS510

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SYS 5404 Signal Linear Systems Analysis

Course Info

Course Title

Signal and Linear Systems Analysis

Course Description

Modeling and analysis of both continuous-time and discrete-time systems and signals. Time-domain and frequency-domain representation methods and transformations applied to electric circuits, mechanical systems and other dynamic systems. Fundamental theories of systems stability, controllability, observability and state-feedback control design. Computer simulation studies. Credit cannot be received for both SYS 520 and ECE 520.

Equivalent Courses

ECE520, ECE5404, SYS520, SYS520P

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5420 Engineering Project Management

Course Info

Course Title

Engineering Project Management

Course Description

Concepts and techniques for management of development programs and projects, with special focus on planning, controlling and coordinating individual and group efforts. Topics include overview of project management, organization strategy, and project selection, defining project and developing project plan, scheduling resources, project risk analysis, work breakdown structures and project networks.

Equivalent Courses

ISE5520

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5421 Leadership Princp and Pos Enga

Course Info

Course Title

Leadership Principles and Positive Engagement

Course Description

A comprehensive examination of leadership principles and their applications within typical business situations and settings. Introduction to leadership from a positive engagement perspective at individual, team and organization levels. Project management leadership activity will be studied through the lens of an engineer. The course provides the ability to evaluate and enhance personal potential through assessments and exercises.

Equivalent Courses

ISE4421, ISE5421

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5423 Industrial Automation Systems

Course Info

Course Title

Industrial Automation Systems

Course Description

Tools and techniques for application of industrial automation in a variety of individual settings with emphasis on systems architecture. Topics include hierarchical relationships of automated controls from Human Machine Interfaces (HMI) to the sensor level and application of Plan-Do-Check-Act to achieve lean automated solutions.

Equivalent Courses

ISE5423

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SYS 5430 Foundations of Systems Engr

Course Info

Course Title

Engineering Operations Research - Deterministic Models

Course Description

A comprehensive introduction to Operations Research modeling and techniques used in decision-making problems and systems performance evaluations. Major topics include linear programming, integer programming, duality theory, dynamic programming, network models assignment, and transportation problems.

Equivalent Courses

ISE5430

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5431 Egr Ops Rsrch/Stochastic Model

Course Info

Course Title

Engineering Operations Research - Stochastic Models

Course Description

Review the fundamentals of mathematical modeling for linear and nonlinear systems and solution procedures applicable to decision making in an uncertain environment. Topics include stochastic programming, robust optimization, stochastic dynamic programming, Markov decision processes, decision trees, queuing models, and inventory theory. Solutions will be obtained using theoretical methods and software packages.

Equivalent Courses

ISE5431

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5434 Metamodel & Opt Mthd in Design

Course Info

Course Title

Metamodeling and Optimization Methods in Design

Course Description

Fundamentals of metamodeling and optimization with emphasis on practical design applications. Topics include design of experiments, Latin hypercube design, orthogonal arrays, metamodeling fundamentals, radial basis functions, Kriging, convex and non-convex sets, classification of optimization problems, gradient descent and Newton's methods, KKT conditions, and genetic algorithms.

Equivalent Courses

SYS5900

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5435 Data Analytics

Course Info

Course Title

Data Analytics

Course Description

Various techniques for analyzing data with multiple dependent and independent variables are introduced, with an emphasis on applied methodologies and applications in management and engineering fields. Topics covered include regression, logistic regression, multivariate analysis of variance, principal components analysis, cluster analysis, neural networks, ARIMA and data visualization. Effective use of advanced data analysis software for solving real-world engineering problems is addressed.

Equivalent Courses

ISE4435, ISE5435

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5442 Virtual and Augmented Reality

Course Info

Course Title

Virtual and Augmented Reality

Course Description

Multi-disciplinary team experience in design, prototyping, and evaluation of user experience in extended reality (XR) emphasizing theories and applications of virtual, augmented, and mixed reality (VR/AR/MR) technologies as well as user experience (UX) techniques that are unique to the human-centered design of XR. Cross Listing: ISE 4442 and ISE 5442

Equivalent Courses

ISE4442, ISE5442

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5443 Automotive User Experience

Course Info

Course Title

Automotive User Experience

Course Description

Multi-disciplinary team experience in design, prototyping, and evaluation of automotive user experience emphasizing theories and practices that support the development of human-machine interfaces for automated vehicles that are safe, easy to use, useful, and desired by users. This course is centered on course project using a virtual reality driving simulator.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5455 Foundations of Safety Engr

Course Info

Course Title

Foundations of Safety Engineering

Course Description

Application of engineering principles to the field of industrial safety. Skills to develop include: risk assessment, program effectiveness measurement and optimization, safe systems from an engineering perspective, safety engineering consensus standards and standards of competence. The importance of safety engineering in the intelligent design, automation and corrective processes are studied.

Equivalent Courses

ISE5455

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SYS 5456 Engineering Risk Analysis

Course Info

Course Title

Engineering Risk Analysis

Course Description

Systematic approach t risk management in engineering decision making including tools for proactive risk planning, identification, analysis/assessment and prioritization in a formal and scientific manner required for engineering applications. A focus on risk solutions for preventing, mitigating, responding, monitoring and controlling the likelihood and/or consequences of unfavorable events.

Equivalent Courses

ISE5456

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SYS 5469 Computer Simulation In Egr

Course Info

Course Title

Computer Simulation in Engineering

Course Description

Simulation as modeling tool for discrete-event and continuous systems; general principles of simulation; statistical models; input modeling; random variable generation; model building using a commercial simulation language; model verification and validation; determination of run length; output analysis; variance reduction techniques. Design and optimization of production service systems. Offered winter. Formerly SYS 569.

Equivalent Courses

SYS569

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5483 Prod Systems/Workflow Analysis

Course Info

Course Title

Production Systems and Workflow Analysis

Course Description

Design issues to control the flow of material in manufacturing systems from forecast to finished product. Topics include characterization of production systems, aggregate planning and disaggregation to a master schedule, inventory control, MRP, JIT systems, scheduling and sequencing, project planning and resource balancing. Offered Fall. SYS 583 and its equivalent course ISE 583 are graduate courses which are cross listed with undergraduate courses ISE 483 and SYS 483. Credit can be received for only one of ISE 583, SYS 583, ISE 483 and SYS 483. Student must have completed a course in probability.

Equivalent Courses

ISE5483, ISE583, SYS583

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5485 Statistical Quality Analysis

Course Info

Course Title

Statistical Quality Analysis

Course Description

Fundamentals of statistical quality control and their use in system design. Control charts for variables, control charts for attributes, cusum charts and other process quality monitoring topics. Sampling inspection plans. Fundamentals of design of experiments and their application to product/process design and improvement. Taguchi's approach to robust design and related topics. Offered winter. ISE 585 and its equivalent course SYS 585 are graduate courses which are cross listed with undergraduate courses ISE 485 and SYS 485. Credit can be received for only one of ISE 585, SYS 585, ISE 485, and SYS 485. Students must have completed a course in probability.

Equivalent Courses

SYS585

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5487 Foundations of Systems Egr

Course Info

Course Title

Foundations of Systems Engineering

Course Description

Techniques for generation, analysis and verification of traceable product design requirements. System performance and structural modeling using object, behavioral and other models. Techniques for analysis of system for serviceability, reliability, maintainability and testability. System alternative trade-off study techniques. System life cycle and other tools for implementation of systems engineering techniques. This course is cross listed with an undergraduate course (ISE 4487). Credit cannot be received for more than one of SYS 487, SYS 587, SYS 5487, ISE 487, ISE 4487, ISE 587, ISE 5487. Formerly SYS 587.

Equivalent Courses

ISE5487, SYS587

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	4

SYS 5488 Advanced Systems Engineering

Course Info

Course Title

Advanced Systems Engineering

Course Description

Theories behind system realization: identifying and encoding customer needs; identifying stakeholders and modeling their preferences; uncertainty modeling and propagation; optimization in engineering design; design churn; design for X; design flexibility and its importance in large-scale engineering projects; and public policy. Prerequisite(s) ISE 5487 or SYS 5487

Equivalent Courses

ISE5488

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5490 Industrial Sustainability

Course Info

Course Title

Industrial Sustainability

Course Description

This course focuses on methods, systems, behaviors, and Industry 4.0 technologies that enable the creation of sustainable products and solutions. The aim is to develop the knowledge and skills required to create strategic plans for short- and long-term industrial sustainability using the Sustainable Development Goals (SDGs) framework. The curriculum emphasizes case studies to demonstrate the practical application of scientific theories in real-world industrial scenarios to implement and measure sustainable practices. Upon completion of the course, students would have developed skills on how to implement sustainability initiatives and practices in different industrial settings. This course is cross-listed with ISE 4490, ISE 5490.

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5517 Statistical Methods in Engr

Course Info

Course Title

Statistical Methods in Engineering

Course Description

Techniques and topics from probability of use to engineers, particularly those interested in manufacturing. Includes topics from statistics, control charts, propagation of error and tolerancing, analysis of queuing systems using birth and death processes and Markov chains, reliability, decision trees, etc. Credits cannot be received for both SYS 517 and ISE 517. Offered winter, odd years. Student must have completed a course in probability.

Equivalent Courses

ISE517, ISE5517, SYS517

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5520 Automotive Mechatronics I

Course Info

Course Title

Automotive Mechatronics I

Course Description

Overview of mechatronics; modeling, identification and simulation of electro-mechanical devices; introduction to computer-aided software; basic automotive sensors; basic actuators and power train devices; principles of automotive and industrial electronic circuits and control systems (analog and digital); principles of product design; mechatronics case studies. Previously EE 575, ECE 575. This course is cross listed with an undergraduate course. Credit cannot be received for more than one of ECE 475, ECE 4520, ECE 575, ECE 5520, EE 475, EE 575, SYS 475, SYS 575, SYS 5520.

Equivalent Courses

ECE5520, ECE575, EE575, SYS575

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5560 Lifecycle Management

Course Info

Course Title

Product Lifecycle Management

Course Description

The product lifecycle begins with customer perception of value, and proceeds through design, manufacture, useful life, and disposal. It includes many groups, and its success is dependent on the cultures of the responsible organizations. Topics include agility, systems thinking, digitalization, disruptive innovation, and organizational behavior. Team projects investigate innovation lapses and product failures.

Equivalent Courses

ISE5560

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

SYS 5610 Energy Conservation Sys

Course Info

Course Title

Energy Conservation Systems

Course Description

Techniques for improving energy use in industrial and commercial applications. Topics include: energy accounting; energy auditing; energy conservation management; net energy analysis; second law methods of analysis; combined use energy systems; new technology for energy conservation; assessment of alternative technology. Credit can only be received for either ECE 557 or SYS 557 or ISE 557. Prerequisite: At least one course from the Core and Theory group of courses or student must have permission of instructor.

Equivalent Courses

ECE557, ECE5610, ISE557, ISE5610, SYS557

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 5620 Electrical Energy Systems

Course Info

Course Title
Electrical Energy Systems

Course Description
Generation, transmission and distribution of electrical energy. Analysis and design of three-phase circuits, per unit normalization, system design evaluation and load-flow, symmetrical components and stability. This course is cross listed with an undergraduate course. Credit cannot be received for both SYS 558 and ECE 458.

Equivalent Courses
ECE5620, SYS558

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:
4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	8

SYS 5900 Special Topics

Course Info

Course Title
Special Topics

Course Description
Study of special topics in systems engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly SYS 595.

Equivalent Courses
ISE5900, SYS595

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	99	999

SYS 5970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Independent study in a special area in systems engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly SYS 594.

Equivalent Courses
SYS594

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

SYS 6400 Estimation/Control Theory

Course Info

Course Title
Estimation and Control Theory

Course Description
Stochastic differential and difference equations; Luenberger observer theory; Kalman-Bucy filtering theory; design of stochastic optimal and microprocessor-based control systems; duality between optimal estimation and control problems; the separation principle; simulation and laboratory implementation of observers and filters in stochastic control system. Formerly SYS 631. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses
ECE6400, SYS631

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:
4

SYS 6410 Intelligent Control Systems

Course Info

Course Title

Intelligent Control Systems

Course Description

Definition and paradigm for intelligent control; self-learning and supervised learning; hierarchical decision architecture; fuzzy logic, neural network, heuristics, genetic algorithm, optimum strategy and related topics; examples of intelligent and autonomous systems; computer simulation and visualization of applications. Credit cannot be received for more than one of SYS 645, SYS 6410, SYS 735, ECE 645, ECE 6410. Formerly SYS 645. Prerequisite: Student must have permission of instructor.

Equivalent Courses

ECE6410, SYS645

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6412 Digital Control Systems

Course Info

Course Title

Digital Control Systems

Course Description

Theoretical foundation needed to implement the microprocessor in control applications. Effects of sampling, data conversion, quantization, finite word length and time delays on system response and stability are examined. Pole-placement and observer/estimator techniques. Actual construction of a microcomputer-based controller culminates the course. Formerly SYS 674. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses

SYS674

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6430 Analysis/Nonlinear Control Sys

Course Info

Course Title

Analysis of Nonlinear Control Systems

Course Description

Nonlinear systems modeling and analysis with various engineering applications. Special phenomena and nonlinear dynamics. Theory of nonlinear systems stability and stabilization. Controllability, observability, invertibility and linearizability of nonlinear control systems. Nonlinear feedback control, internal dynamics and nonlinear adaptive control. Advanced computer simulation studies. Credit cannot be received for more than one of SYS 632, SYS 6430 and SYS 532. Formerly SYS 632. Prerequisites SYS 5404 or ECE 5404.

Equivalent Courses

SYS532, SYS632

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6440 Adaptive Control Systems

Course Info

Course Title

Adaptive Control Systems

Course Description

Classifications of self-tuning and adaptive systems; parameter estimation techniques, self-tuning regulators and state estimators, stability and convergence analysis; model reference adaptive systems using Lyapunov and hyperstability models; applications of adaptive control systems; computer simulation and laboratory experiments. Prerequisites SYS 5404 or ECE 5404.

Equivalent Courses

ECE6440, SYS635

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6452 Optimal and Predictive Control

Course Info

Course Title

Optimal and Predictive Control

Course Description

Modern control theory applied to linear dynamical systems. Differential and difference equations; stability of optimal control systems; dynamic programming; linear quadratic regulator; model predictive control; quadratic programming; nonlinear model predictive control and sequential quadratic programming; application of theory to practical control system design methodology; project designing model predictive control system. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses

ECE6452, SYS630

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6462 Dynamic/Cntrl Robot Mani

Course Info

Course Title

Dynamics and Control of Robot Manipulators

Course Description

Cartesian and joint space representations and transformations. The Denavit-Hartenberg (D-H) convention and parameter tables. Robotic forward and inverse kinematics and task planning. Newton-Euler and Lagrangian dynamic models and formulations. Robotic joint servo control, position control, force control, compliant motion and many industrial application aspects. Computer numerical and graphical simulations. Offered winter. Formerly SYS 623. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses

SYS623

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6520 Automotive Mechatronics II

Course Info

Course Title

Automotive Mechatronics II

Course Description

An extensive review and in-depth explanation of mechatronics schemes for computer-controlled systems in current automotive systems. Advances for vehicle body dynamics control, electric & hybrid vehicles, active safety, and self-driving. State-of-the-art technologies and methodologies such as MEMs & nanotech, sensors, actuators, power electronics, computation, AI decisions & control. Credit cannot be received for more than one of SYS 6520, ECE 6520, EE 675. Prerequisites: SYS 5520 or ECE 5520 or EE 575.

Equivalent Courses

ECE6520, ECE675, EE675, SYS675

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6680 Engineering Decision Analysis

Course Info

Course Title

Engineering Decision in Analysis

Course Description

Consideration of risk and uncertainty in decision criteria for resource allocation. Mathematical programming in engineering applications for multi-attribute utility analysis. Offered fall. Credit cannot be received for both SYS 680, SYS 6680, ISE 680, ISE 6680.

Equivalent Courses

ISE6680, SYS680

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 6996 Graduate Engineering Project

Course Info

Course Title

Graduate Engineering Project

Course Description

Independent work on an advanced project in systems engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 4 credits. Formerly SYS 690.

Equivalent Courses

SYS690

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
2	4

Repeat Rules

Repeat Status Code	Maximum Hours
RP	4

SYS 6998 Master's Thesis Research

Course Info

Course Title

Master's Thesis Research

Course Description

Directed research leading to a master's thesis. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly SYS 691.

Equivalent Courses

SYS691

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours Max:
1	8

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	2	8

SYS 7402 Large-Scale Dynamic Sys

Course Info

Course Title

Large-Scale Dynamic Systems

Course Description

Analysis using a systems methodology including state variable modeling and multilevel structure. Structural stability, dynamic reliability, aggregation and decomposition. Application to estimation and control of large systems. Formerly SYS 721. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses

SYS721

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 7404 Linear Multivariable Sys

Course Info

Course Title

Linear Multivariable Systems

Course Description

Fundamental and state-of-the-art modeling, analysis and design of linear multivariable dynamic systems. The role of polynomial matrices and differential operators in the description and structural realization of multivariable systems. Concepts of multivariable poles, zeros, Nyquist arrays and generalized root loci. Algebraic design methods based on state feedback observers, and model-matching. Inverse Nyquist and characteristic locus techniques as extensions of classical control design. Formerly SYS 722. Prerequisites: SYS 5404 or ECE 5404.

Equivalent Courses

SYS722

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 7455 Stochastic Optim Control

Course Info

Course Title

Stochastic Optimal Control and Estimation Theory

Course Description

Foundation of stochastic optimal control and estimation theory. Continuous-time and discrete-time stochastic linear and nonlinear systems; analysis and design of stochastic optimal control systems; nonlinear filtering smoothing and prediction theory; and adaptive control estimation. Offered fall, odd years. Formerly SYS 731. Prerequisite: SYS 6452.

Equivalent Courses

SYS731

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

4

SYS 7900 Special Topics

Course Info

Course Title

Special Topics

Course Description

Advanced study of special topics in systems engineering. May be taken more than once. May not exceed a maximum of 8 credits. Formerly SYS 795.

Equivalent Courses

SYS795

College/School

School of Egr. and Comp. Sci.

Department

Industrial/Systems Engineering

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
1

Maximum Hours
8

SYS 7970 Independent Study

Course Info

Course Title
Independent Study

Course Description
Advanced independent study in a special area in systems engineering. Topic must be approved prior to registration. May be taken more than once. May not exceed a maximum of 8 credits. Formerly SYS 794.

Equivalent Courses
SYS794

College/School
School of Egr. and Comp. Sci.

Department
Industrial/Systems Engineering

Credits

Credit Hours

Units:	Credit Hours
2	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	8

TD 5000 Intro to School/Society

Course Info

Course Title
Introduction to the School and Society

Course Description
Provides an introduction to educational issues including: purposes of schooling, choice, diversity, urban education, accountability, uses of technology, ways of learning, and roles and conditions of teaching. Prerequisite(s): Student must be admitted to the MAT program.

Equivalent Courses
CIL500, CIL502, TD500, TD5000P

College/School
School of Ed. and Human Svcs.

Department
Teaching and Learning

Credits

Credit Hours

Units:
2

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
NR	1	2

TD 5001 Instruct Design/Assessment

Course Info

Course Title

Instructional Design and Assessment

Course Description

Prepares teacher candidates to plan and evaluate instruction through the design of lessons and the development and use of formal, informal, and teacher-created assessment techniques. Student must be admitted to the MAT program and must meet prerequisite (TD 530).

Equivalent Courses

CIL521, TD521

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code
NR

Repeat Limit
1

Maximum Hours
4

TD 5100 Lrng Thry: Cog/Affec Dev/Adol

Course Info

Course Title

Learning Theory: Cognitive and Affective Development of Adolescents

Course Description

Investigates learning theories to understand the cognitive and affective development of adolescents. The understandings are interpreted for their implications of teaching in secondary classrooms. Student must be admitted to the MAT program.

Equivalent Courses

CIL501, TD501, TD5100P

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status Code
NR

Maximum Hours
3

TD 5103 Mng Classrm Env/Diverse Lrnrs

Course Info

Course Title

Managing the Classroom Environment of and for Diverse Learners

Course Description

Acquaints prospective teachers with diversity as it influences and enhances the classroom community. Course assignments and field experiences are designed to help students develop knowledge and skills associated with cross-cultural communication and classroom management through personal interactions with students from diverse racial, ethnic, gender and/or socioeconomic backgrounds. Prerequisite(s): Student must be admitted to the MAT program.

Equivalent Courses

TD530

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
3

TD 5104 Mgng Sec Clsrm Edu Equity

Course Info

Course Title

Managing the Secondary Classroom for Educational Equity

Course Description

Engages prospective teachers in the process of understanding and exploring the issues of equity in the classroom and the school community and developing a proficiency in meeting the diverse needs of learners in that environment. The focus will be on establishing an effective classroom environment that is appropriate for a wide range of diverse students.

Equivalent Courses

TD540

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
4

TD 5180 Health Curric/Elem-Middle Lvls

Course Info

Course Title

Health Curriculum at the Elementary-Middle Levels

Course Description

Students develop understandings related to a rationale for teaching health at the elementary/middle levels by exploring health education content, research, legal requirements, content expectations, and relevant curriculum for teaching health as well as philosophies that guide health education efforts. This is an online course with initial and final meetings on campus.

Equivalent Courses

TD506

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

1

Repeat Rules

Repeat Status
Code

NR

Repeat Limit

1

Maximum Hours

1

TD 5181 Tchg Fitness Wellbng Elem Mdl

Course Info

Course Title

Teaching Fitness and Wellbeing in Elementary and Middle Level Classrooms

Course Description

Students admitted to the K-8 Education Program examine and practice teaching in a supervised peer laboratory setting, gaining experience with a classroom repertoire of PE foundations, unit planning, lesson design, assessment, and overall program evaluation leading to the physiological, biomechanical, social, and emotional health of children.

Equivalent Courses

TD510

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

TD 5220 Integrating Arts/Elem Clssrm

Course Info

Course Title

Integrating the Arts in the Elementary Classroom

Course Description

This course will give students a basis and background for integrating visual and performing arts experiences in the classroom. Topics will include: understanding children's artistic development; recognizing the importance of problem solving in the arts; and making connections among the arts and other disciplines.

Equivalent Courses

TD515

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

3

TD 5260 Tchng Elem/Middle Science

Course Info

Course Title

Teaching Elementary/Middle Level Science

Course Description

Develops knowledge, skills and methods for teaching elementary and middle school science. Topics include planning effective instruction, using instructional models, creating a safe environment, integrating science across the curriculum, and using current instructional materials and assessment strategies. Includes a required field experience and additional science teaching experience. Student must meet prerequisites (TD 5103 and TD 5001).

Equivalent Courses

TD513

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

TD 5270 Teaching Social Studies

Course Info

Course Title

Teaching Elementary/Middle Level Social Studies

Course Description

Offers opportunities to explore definitions of social studies and strategies for teaching social studies in K-8 classrooms. The field experience is a pivotal piece of this course. Through discussions and assignments, students will examine and reflect upon teaching and learning social studies within both Michigan and their local community. Prerequisite(s): Student must meet prerequisites (TD 5103 and TD 5001).

Equivalent Courses

TD514

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

3

Credit Hours

Max:

4

TD 5309 Adv Interact Lab/Teach Devel

Course Info

Course Title

Advanced Interaction Laboratory for Teacher Development

Course Description

Strengthens and refines teacher's communication skills, instructional strategies, models of teaching and delivery systems to improve the learning climate for all students. Newly acquired skills are implemented, practiced and assessed in authentic settings. Teachers participate in peer coaching, group problem solving and qualitative research.

Equivalent Courses

CIL554, TD554

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

4

TD 5320 Math Ped/Curr in Elem/Middle

Course Info

Course Title

Mathematics Pedagogy and Curriculum in Elementary and Middle Grades

Course Description

Investigates mathematical content, curricula, method, design, and assessment in the elementary and middle grades. Prerequisite(s): Student must meet prerequisites (TD 5103 and TD 5001).

Equivalent Courses

TD516

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
3	Max: 4

TD 5949 Internship Seminar

Course Info

Course Title

Internship Seminar

Course Description

Focuses on interactive dialogue and the study of effective teaching practices. This course is taken in conjunction with the student teaching experience. Prerequisite(s): None Corequisite(s): None

Equivalent Courses

CIL556, TD556

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:	Credit Hours
1	Max: 4

Repeat Rules

Repeat Status Code	Repeat Limit	Maximum Hours
RP	1	4

TD 5950 Internship in Elementary Ed

Course Info

Course Title

Internship in Elementary Education

Course Description

Provides a one-semester internship under the guidance of a clinical instructor and a university supervisor. Enrollment of 8 hours is required. Student must have permission of advisor. Prerequisite(s): Student must complete coursework in MAT elementary education.

Equivalent Courses

TD555

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

8

TD 5955 Internship/Secondary Ed

Course Info

Course Title

Internship in Secondary Education

Course Description

Provides up to a two semester internship under the guidance of a clinical instructor and a university field supervisor. Enrollment for 10 hours is required for completion of the internship. Emphasis will be placed on the development and application of effective instructional methods and classroom management techniques. Prerequisite(s): Student must complete coursework in MAT secondary education. Corequisite(s): None

Equivalent Courses

CIL559, TD559

College/School

School of Ed. and Human Svcs.

Department

Teaching and Learning

Credits

Credit Hours

Units:

2

Credit Hours

Max:

8

Repeat Rules

Repeat Status
Code

NR

Repeat Limit
1

Maximum Hours
8

WRT 5140 Teaching Writing

Course Info

Course Title

Teaching Writing

Course Description

Course focusing on the teaching of writing. Examination of and practice instructional techniques and research in writing pedagogy, and such related issues as assessment, classroom workshops. Formerly WRT 614. Prerequisite: Student must have permission of instructor.

Equivalent Courses

WRT614

College/School

College of Arts and Sciences

Department

Writing and Rhetoric

Credits

Credit Hours

Units:

4

WRT 5150 Meadow Brook Writing Project

Course Info

Course Title

Meadow Brook Writing Project

Course Description

Concentrated four-week workshop on topics of interest to teachers. Students cannot receive credit for both RHT 514 and WRT 515. Formerly WRT 515. Prerequisite: Student must have permission of instructor.

Equivalent Courses

RHT515, WRT515

College/School

College of Arts and Sciences

Department

Writing and Rhetoric

Credits

Credit Hours

Units:

2

Credit Hours

Max:

4

Repeat Rules

Repeat Status Code

RP

Maximum Hours

4

WRT 5160 Teaching Writing/New Media

Course Info

Course Title

Teaching Writing with New Media

Course Description

Explores the practices and effects of new media (digital audio, graphics, video, slide shows, wikis, and social networks) within the writing classroom and other literate contexts. Examines both the issues surrounding and the theories that are relevant to teaching writing with new media technologies.

Equivalent Courses

WRT525

College/School

College of Arts and Sciences

Department

Writing and Rhetoric

Credits

Credit Hours

Units:

4

Repeat Rules

Repeat Status Code

NR

Course Sets

Math Courses

- MTH4661 - General Topology
- APM2559 - Introduction to Differential Equations
- MTH5905 - Special Topics
- APM5905 - Special topics
- APM5610 - Advanced Data Structures and Algorithms
- APM3430 - Theory of Computation
- MTH5062 - Geometric Structures
- APM4347 - Mathematics of Cryptology
- MTH4776 - Abstract Algebra II
- MTH4775 - Abstract Algebra I
- MTH4772 - Number Theory with Cryptography
- MTH4662 - Geometric Structures
- MTH4553 - Advanced Calculus II
- MTH4552 - Advanced Calculus I
- MTH4114 - History of Mathematics
- MTH4076 - Abstract Algebra II

WRT 5900 Topics in Writing and Rhetoric

Course Info

Course Title

Special Topics in Writing and Rhetoric

Course Description

Special topics in teaching of college writing, writing for digial media and professional writing. Can be repeated for a total of 18 credits.

College/School

College of Arts and Sciences

Department

Writing and Rhetoric

Credits

Credit Hours

Units:

1

Credit Hours

Max:

4

Repeat Rules

Repeat Status
Code

RP

Repeat Limit
4

Maximum Hours
18

- MTH4075 - Abstract Algebra I
- MTH4072 - Number Theory with Cryptography
- MTH4062 - Geometric Structures
- MTH4053 - Advanced Calculus II
- MTH4052 - Advanced Calculus I
- MTH4014 - History of Mathematics
- APM4560 - Mathematical Models in Biology
- APM4350 - Technical Analysis of Stocks Trading Data
- MTH1331 - College Algebra
- MTH5076 - Abstract Algebra II
- MTH5075 - Abstract Algebra I
- MTH5072 - Number Theory with Cryptography
- MTH5053 - Advanced Calculus II
- MTH5052 - Advanced Calculus I
- MTH5014 - History of Mathematics
- APM5777 - Computer Algebra
- APM5663 - Applied Mathematics: Discrete Methods I
- APM5334 - Applied Numerical Methods: Matrix Methods

- APM5333 - Numerical Methods
- APM4777 - Computer Algebra
- APM4663 - Applied Mathematics: Discrete Methods I
- APM4334 - Applied Numerical Methods: Matrix Methods
- APM4333 - Numerical Methods
- APM3610 - Design and Analysis of Algorithms
- MTH6772 - Algebraic Geometry
- MTH6771 - Commutative Algebra
- MTH6770 - Algebraic Number Theory
- MTH6552 - Functional Analysis II
- MTH6551 - Functional Analysis
- MTH5920 - Directed Reading and Research
- MTH5772 - Algebra II
- MTH5771 - Algebra I
- MTH5662 - Advanced Topics in Topology
- MTH5661 - Topology I
- MTH5555 - Complex Analysis
- MTH5551 - Real Analysis
- MTH4997 - Apprentice College Teaching
- MTH4996 - Independent Study
- MTH4905 - Special Topics
- MTH4665 - Differential Geometry
- MTH4115 - Foundations of Mathematics: Mathematical Logic and Set Theory
- MTH3552 - Complex Variables
- MTH3002P - Introduction to Advanced Mathematical Thinking
- MTH3002 - Introduction to Advanced Mathematical Thinking
- MTH3001 - Putnam Seminar
- MTH2996 - Independent Study
- MTH2905 - Special Topics
- MTH2775P - Linear Algebra
- MTH2775 - Linear Algebra
- MTH2556P - Intro To Linear Algebra
- MTH2554P - Multivariable Calculus
- MTH2554 - Multivariable Calculus
- MTH1555P - Calculus II
- MTH1555 - Calculus II
- MTH1554P - Calculus I
- MTH1554 - Calculus I
- MTH1441P - Precalculus
- MTH1441 - Precalculus
- MTH1332 - Trigonometry
- MTH1222P - Calculus For Social Sci
- MTH1222 - Calculus for the Social Sciences
- MTH1221P - Linear Prog/Elem Functn
- MTH1221 - Linear Programming Elementary Functions
- MTH1118 - Mathematical Sciences in the Modern World
- MTH0662 - Intermediate Algebra
- MTH0661 - Elementary Algebra
- APM9999 - Doctoral Dissertation Research
- APM6996 - Master of Science Research Project
- APM6945 - Problem Solving Seminar
- APM6773 - Coding Theory
- APM6665 - Approximation and Randomized Discrete Algorithms
- APM6664 - Combinatorial Optimization
- APM6558 - Mathematical Modeling in Industry: Continuous Models
- APM6334 - Numerical Methods for Partial Differential Equations
- APM6005 - Applied Continuous Mathematics: Selected Topics
- APM5920 - Directed Reading and Research
- APM5881 - The Theory of Computation
- APM5669 - Graph Theory and Applications
- APM5668 - Mathematical Modeling in Industry: Discrete Models
- APM5666 - Computational Geometry
- APM5665 - Differential Geometry
- APM5664 - Applied Mathematics: Discrete Methods II
- APM5557 - Advanced Partial Differential Equations
- APM5553 - Advanced Ordinary Differential Equations
- APM5442 - Mathematical Analysis for Engineers II
- APM5441 - Mathematical Analysis for Engineers I
- APM5347 - Mathematics of Cryptology
- APM4996 - Independent Study
- APM4905 - Special Topics
- APM4555 - Intermediate Ordinary Differential Equations
- APM4550 - Risk Management
- APM3557 - Elements Partial Differential Equations
- APM3332P - Appl Anlys Matr Thery
- APM3332 - Applied Matrix Theory
- APM2663P - Discrete Mathematics
- APM2663 - Discrete Mathematics
- APM2559P - Introduction to Differential Equations
- APM2557P - Intro Differential Equa
- APM2555P - Intro Diff Eg with Matrix Alg
- APM2555 - Introduction to Differential Equations with Matrix Algebra
- APM1663 - Mathematics for Information Technology
- MTH672 - Algebraic Geometry
- MTH671 - Commutative Algebra
- MTH670 - Algebraic Number Theory
- MTH652 - Functional Analysis II
- MTH651 - Functional Analysis
- MTH590 - Directed Reading and Research
- MTH572 - Algebra II
- MTH571 - Algebra I
- MTH562 - Advanced Topics in Topology
- MTH561 - Topology I
- MTH555 - Complex Analysis
- MTH551 - Real Analysis
- MTH505 - Special Topics
- MTH497 - Apprentice College Teaching
- MTH490 - Independent Study
- MTH476 - Abstract Algebra II
- MTH475 - Abstract Algebra I
- MTH472 - Number Theory with Cryptography
- MTH465 - Differential Geometry
- MTH462 - Geometric Structures
- MTH461 - General Topology
- MTH453 - Advanced Calculus II
- MTH452 - Advanced Calculus I

- MTH415 - Foundations of Mathematics: Mathematical Logic and Set Theory
- MTH414 - History of Mathematics
- MTH405 - Special Topics
- MTH352 - Complex Variables
- MTH302P - Introduction to Advanced Mathematical Thinking
- MTH302 - Introduction to Advanced Mathematical Thinking
- MTH301 - Putnam Seminar
- MTH290 - Independent Study
- MTH275P - Linear Algebra
- MTH275 - Linear Algebra
- MTH256P - Intro To Linear Algebra
- MTH254P - Multivariable Calculus
- MTH254 - Multivariable Calculus
- MTH205 - Special Topics
- MTH155P - Calculus II
- MTH155 - Calculus II
- MTH154P - Calculus I
- MTH154 - Calculus I
- MTH141P - Precalculus
- MTH141 - Precalculus
- MTH122P - Calculus For Social Sci
- MTH122 - Calculus for the Social Sciences
- MTH121P - Linear Prog/Elem Functn
- MTH121 - Linear Programming Elementary Functions
- MTH118 - Mathematical Sciences in the Modern World
- MTH062 - Intermediate Algebra
- MTH061 - Elementary Algebra
- APM790 - Doctoral Dissertation Research
- APM695 - Problem Solving Seminar
- APM673 - Coding Theory
- APM665 - Approximation and Randomized Discrete Algorithms
- APM664 - Combinatorial Optimization
- APM658 - Mathematical Modeling in Industry: Continuous Models
- APM634 - Numerical Methods for Partial Differential Equations
- APM605 - Applied Continuous Mathematics: Selected Topics
- APM595 - Master of Science Research Project
- APM590 - Directed Reading and Research
- APM581 - The Theory of Computation
- APM577 - Computer Algebra
- APM569 - Graph Theory and Applications
- APM568 - Mathematical Modeling in Industry: Discrete Models
- APM567 - Algorithms and Complexity
- APM566 - Computational Geometry
- APM565 - Differential Geometry
- APM564 - Applied Mathematics: Discrete Methods II
- APM563 - Applied Mathematics: Discrete Methods I
- APM557 - Advanced Partial Differential Equations
- APM553 - Advanced Ordinary Differential Equations
- APM542 - Mathematical Analysis for Engineers II
- APM541 - Mathematical Analysis for Engineers I
- APM534 - Applied Numerical Methods: Matrix Methods

- APM533 - Numerical Methods
- APM505 - Special topics
- APM490 - Independent Study
- APM477 - Computer Algebra
- APM463 - Graph Theory and Combinatorial Mathematics
- APM455 - Intermediate Ordinary Differential Equations
- APM450 - Risk Management
- APM434 - Applied Numerical Methods: Matrix Methods
- APM433 - Numerical Methods
- APM405 - Special Topics
- APM381 - Theory of Computation
- APM367 - Design and Analysis of Algorithms
- APM357 - Elements of Partial Differential Equations
- APM332P - Appl Anlys Matrx Thery
- APM332 - Applied Matrix Theory
- APM263P - Discrete Mathematics
- APM263 - Discrete Mathematics
- APM257P - Intro Differential Equa
- APM257 - Introduction to Differential Equations
- APM255P - Intro Diff Eg with Matrix Alg
- APM255 - Introduction to Differential Equations with Matrix Algebra
- APM163 - Mathematics for Information Technology
- MTH500N - Special Topics in Mathematics
- MTH011 - Elementary Algebra
- APM500N - Special Topics in Applied Mathematics
- MTH266 - Linear Algebra Laboratory
- APM0500C - Special Topics in Applied Mathematics
- MTH0500C - Special Topics in Mathematics
- MTH142 - Precalculus Workshop
- MTH052 - Intermediate Algebra Workshop
- MTH256 - Introduction to Linear Algebra
- MTH012 - Intermediate Algebra
- MTH372 - Number Theory with Cryptograph
- MTH361 - Geometric Structures
- MTH351 - Advanced Calculus I
- MTH100 - Topics in Elementary Math
- APM407 - Mathematics for Engineering
- MTH552 - Real Analysis
- APM585 - Math Modeling Indus Problems

CSE Artificial Intelligence Area

Complete ANY:

- CSI4130 - Artificial Intelligence
- CSI4140 - Deep Learning and Applications
- CSI4170 - Machine Learning
- CSI4180 - Natural Language Processing
- CSI4550 - Visual Computing
- CSI4810 - Information Retrieval and Knowledge Discovery

Business Pre-Core Required Courses

Complete ALL:

- ACC2000 - Financial Accounting
- ACC2100 - Managerial and Cost Accounting I
- Complete ANY:
 - COM2000 - Public Speaking

- COM2403 - Group Dynamics and Communication
 - COM3401 - Communication in Organizations
 - COM3402 - Communication in Leadership
 - COM3403 - Interpersonal Conflict
- Complete ANY:
 - ECN2020 - Principles of Global Macroeconomics
 - ECN2000 - Principles of Macroeconomics
- ECN2010 - Principles of Microeconomics
- MIS1000 - Business Problem Solving with Information Technology
- Complete ANY:
 - MTH1221 - Linear Programming Elementary Functions
 - MTH1441 - Precalculus
 - MTH1331 - College Algebra
 - MTH1222 - Calculus for the Social Sciences
 - MTH1554 - Calculus I
- Complete ANY:
 - QMM2400 - Statistical Methods for Business I
 - STA2220 - Introduction to Statistical Concepts and Reasoning
 - STA2226 - Applied Probability and Statistics
- QMM2410 - Statistical Methods for Business II
- SBC1990 - ACHIEVE I
- SBC2990 - ACHIEVE II

Requirement Sets

General Education Requirements

Simple Requisites

Program Requirements

Type
Completion Requirement

Complete ALL of the following Courses:

- EED1000 - Careers in Teaching
- EED2000 - Teaching, Learning and Schools