OAKLAND UNIVERSITY

2016-2017
UNDERGRADUATE CATALOG

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The academic requirements described in this catalog are in effect fall semester 2016 through summer semester 2022. Undergraduate students admitted to a degree-granting program may use provisions in this catalog to meet requirements within that time frame.

Introduction

Oakland University is a nationally recognized, public university offering students a personal, high-quality, affordable education through a diverse combination of liberal studies, professional instruction, and cultural and social experiences.

Recognized as one of the country's 83 doctoral research universities by The Carnegie Foundation for the Advancement of Teaching, Oakland University offers its more than 20,700 students opportunities to work directly on research projects with expert faculty who bring current knowledge right to the classroom. In all its activities, Oakland University strives to exemplify educational leadership. Anchored by a strong liberal arts program, the university is organized into the College of Arts and Sciences, schools of Business Administration, Education and Human Services, Engineering and Computer Science, Health Sciences, Nursing and The Honors College.

The university's full-time faculty, which numbers more than 550, has a distinguished record of research and scholarship. Faculty members have won some of the most prestigious awards made by government agencies and private foundations. Oakland received more than $39 million in grants and funding for research efforts across multiple disciplines in the 2015-16 fiscal year. Studies in biological and physical sciences and nondestructive testing attract national and international attention to Oakland University. Its highly recognized Eye Research Institute is the only major eye research center in the United States not associated with a medical school. The Center for Biomedical Research resides in the College of Arts and Sciences and facilitates collaborative biomedical research projects with core facilities and equipment. The Oakland University William Beaumont School of Medicine, Michigan's first new M.D.- granting (allopathic) medical school in 47 years, earned full LCME accreditation and celebrated its first graduating class in 2015.

The university takes pride in the many scholarly books and articles written by its faculty and in its contributions to pedagogy and the creative arts. Undergraduate students at Oakland University are involved in high-level research projects, and the results of their research and scholarship are integrated into related courses of instruction. An unusually high proportion of Oakland University alumni have gone on to earn doctoral degrees or other distinctions in their fields.

Complementing its academic programs, Oakland University collaborates actively with business and industry to foster economic development and meet the demands of a highly educated workforce in southeastern Michigan. The university offers world-class cultural activities with emphasis on the professional performing arts. Meadow Brook Hall, former home of the university's benefactors, is a National Historic Landmark and serves as an historic museum and cultural center. Affiliated with the Department of Art and Art History in the College of Arts and Sciences, Oakland University Art Gallery exhibits promise something new for art enthusiasts of all ages, interests and passions. Founded on Oakland's campus in 1967, Meadow Brook Theatre is Michigan's largest non-profit producing professional theatre. Meadow Brook Music Festival brings an annual summer program of world-class entertainment to campus.

Oakland University was created in 1957 when the late Alfred G. and Matilda R. Wilson donated $2 million and their 1,500-acre estate to Michigan State University to begin a new college in Oakland County. Named Michigan State University-Oakland, the new campus enrolled its first students in 1959. In 1963 its name was changed to Oakland University and in 1970 the Michigan Legislature recognized the maturity and stature of the university by granting it autonomy. The governor appointed Oakland University's first board of trustees in 1970.

From its beginnings, the university has emphasized academic quality, providing a dynamic, student-focused learning environment with integration of liberal and professional studies by a faculty of dedicated scholar-teachers. Oakland prides itself on providing a unique, distinctive undergraduate experience that is complemented by the strength of graduate offerings and research accomplishments. Oakland is focused on engaging with communities and developing partnerships, broadening its research agenda, providing opportunities for entrepreneurship and continuing its pattern of growth.

Located in suburban Oakland County, Michigan, Oakland University is easily accessible to millions of Detroit metropolitan area residents. Oakland's relationship with its hometown communities enriches student lives. Through partnership efforts with the cities of Rochester, Rochester Hills, Auburn Hills, and Pontiac many internship opportunities are available to Oakland students and many merchants offer discounts for OU students, alumni and staff. Through OU-Macomb, more than 20 Oakland University degree programs currently serve nearly 1,400 students at the Macomb University Center, Macomb Intermediate School District and the Anton-Frankel Center. The Wayne State University Law School is the exclusive educational partner law school for Oakland University, making law school accessible to students from southeastern Michigan.

The natural beauty of Oakland's 1,443 acre campus, much of it still wooded and undeveloped, is enhanced by comprehensive recreational facilities and modern buildings that house the university's many academic and public service programs as well as more than 2,700 residential students in its six co-ed residence halls, student apartment complexes and townhomes. Adjacent to the campus is the Oakland Technology Park, a research park where private-sector companies work hand-in-hand with higher education. The OU SmartZone business incubator, OU INC, provides entrepreneurial resources and strategic business solutions to develop intellectual property. Student research and internship opportunities are also enhanced by the proximity of many Fortune 500 companies.

Role and Mission

The role and mission statement for the university was adopted by the Oakland University Board of Trustees on July 21, 1982. It emphasizes four essential ingredients for the direction of the university: excellent and relevant instruction, high quality basic and applied research and scholarship, responsive and effective public and community service, and a comprehensive schedule of student development activities. As a state-supported institution of higher education, Oakland University has a three-fold mission. It offers instructional programs of high quality in a diverse and inclusive environment 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 and sciences 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 degree that meet demonstrable needs of Michigan residents and that maintain excellence. Doctoral programs are offered which are innovative and serve needs that are not adequately met elsewhere in the state.

Offerings in continuing education provide Michigan residents with high-quality course-work 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 and a potential for qualified students exist.

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 also serves 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 are consistent with its instructional and research and scholarship 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 with innovative instruction, research, and other service to rapidly changing needs. It makes its facilities available for a multitude of activities to 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 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, athletic 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 institutional decision-making processes.

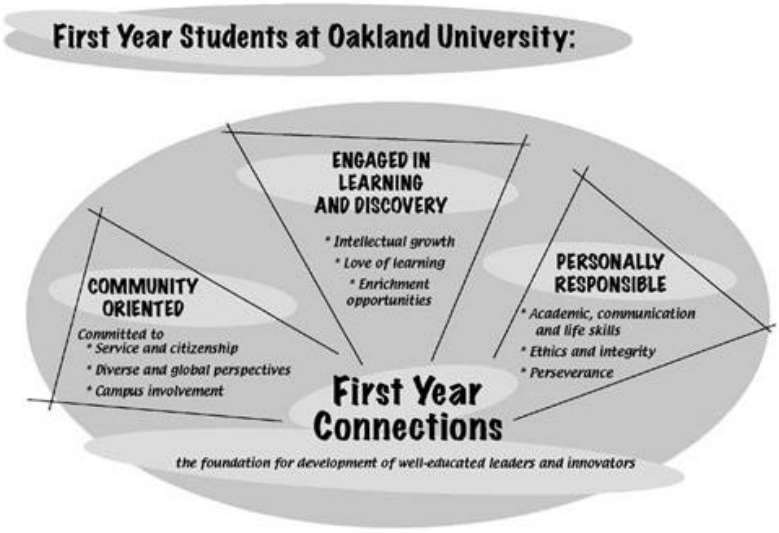
The University takes particular cognizance of its considerable enrollment of older and non-traditional students and provides advising, counseling, and other services of special value to such students in effecting career changes and developing additional personal competencies.

Through the maintenance of complementary academic and extra-curricular environments, Oakland University assists students in the realization that life is a continuum of growth, change, and adaptation. The programs here provide them with the skills essential to the achievement of their fullest potential.

Oakland University is accredited by the Higher Learning Commission, higherlearningcommission.org/, (312) 263-0456.

First Year Philosophy

The first year experience at Oakland University lays the foundation for student success by creating an environment that encourages intellectual growth and embraces learning as a lifelong pursuit. OU emphasizes personal responsibility, perseverance, and involvement in the campus and wider communities. Students are encouraged to behave ethically, to explore diverse perspectives, and to develop global awareness through strong academic programs enriched by activities and events.



First Year Student Goals

Learning and discovering

Goal: During the first year, students will engage in the process of intellectual growth, recognize and value the lifelong learning process, engage in dialogue and civil discourse, and learn to tolerate uncertainty and challenge.

To help achieve this goal, students should:

- explore a range of academic opportunities;
- develop the ability to read and write at a college level;
- respect the ideas of others;
- interact with and ask questions of faculty;
- learn to explore knowledge with an open mind; and
- achieve sophomore status by the end of the first year.

Personal responsibility

Goal: During the first year, students will set and actively pursue goals, make ethical decisions, act with integrity, and take responsibility for developing their academic, communication, and life skills.

To help achieve this goal, students should:

- maintain high standards of academic conduct;
- learn to recognize and avoid plagiarism by giving credit to the ideas of others;
- attend class regularly;
- develop a habit of doing homework and devoting sufficient time to study;
- explore options and evaluate the choice of a major;
- make and keep advising appointments;
- become aware of campus resources and use them;
- seek out positive role models; and
- maintain personal well-being and a healthy lifestyle.

Community orientation

Goal: During the first year, students will value service and citizenship, embrace diverse and global perspectives, and engage in the campus community.

To help achieve this goal, students should:

- network with faculty and staff;

- develop study groups and friendships;
- take courses together in a peer group;
- interact with people from different cultures and backgrounds;
- participate in campus organizations and activities outside of class;
- learn the importance of volunteerism and social engagement.

Academic Policies and Procedures

Student Responsibility

Students are expected to learn all general requirements of the university, as well as those of the program of their chosen field of study. Students are responsible for meeting all requirements and regulations for the degrees they seek.

Facilities and staffing limitations require that certain professional programs place limits on the number of students admitted to major standing. Where such limits exist, the principal admission criterion is academic performance in course work prerequisite to application for major standing. Additional information concerning application for major standing in programs with enrollment limits is contained in the individual program descriptions elsewhere in this catalog.

Academic Advising

The mission of academic advising at Oakland University is to empower students as they identify, pursue, and achieve goals that prepare them to lead and serve in local and world communities. This is a continuous process of discovery, clarification, and evaluation, whereby Professional Academic Advisers partner with students to identify possibilities, assess alternatives, and weigh the consequences of decisions.

Students first meet a Professional Academic Adviser at orientation and are encouraged to seek individual advising as early in their programs as possible and meet with their Professional Academic Adviser at least once a year thereafter. Students may locate their Professional Academic Advisers by consulting the list of school and departmental advising offices displayed at the Advising website: oakland.edu/advising. Faculty advisers are also available in many majors. In general, appointments are scheduled in advance once students contact their respective advising office. Walk-in advising is also available at certain times throughout the academic year.

Assessment

Oakland University is committed to the continuous improvement of its programs and services through an on-going process of self-assessment linked to action steps for improvement. Examples of common assessment activities include surveys, pre- and post-tests, course assignments, focus groups and interviews. Students can expect to participate in the assessment activities of various academic and student service units both as students and, later, as graduates of Oakland programs.

Assessment of student learning outcomes

Oakland University is committed to improving the quality of all of its degree programs. One way this is accomplished is by ongoing assessment of student learning outcomes. All degree programs have a set of unique goals and learning objectives they want students to achieve in their major programs. How well students are achieving the goals of their degree program goals is measured through assessment activities conducted throughout the academic year.

The results of assessment activities are used to improve programs and make curricular changes to maximize student learning outcomes. Assessment results inform departments of how well their current curriculum (courses, degree requirements, and other activities offered by the program) equips students to perform successfully within their major area. Assessment is also used to measure the ability of General Education courses and other experiences to provide a wide range of general knowledge and skills necessary for success in any career and throughout a lifetime. Ongoing assessment activities also allow programs to track and compare the quality of their programs from year-to-year and to measure the success of curricular changes designed to improve program quality. Assessment results are also used to identify program needs and to support requests for additional resources.

As a student, you can expect to participate in assessment activities from time to time as part of your degree program requirements. Some assessment activities might include: student surveys, examinations, evaluation of course papers and projects, entrance and exit interviews, and portfolios of students' work throughout their major program. The activities are different for every degree program because each program has its own unique set of goals and learning objectives. They are designed to measure each program's learning objectives in the best possible way.

Course and Credit System

The credit-hour value of each course (the number in parentheses following the course title) is specified in semester hours. Most Oakland University courses are 4 credits. With their adviser's permission, undergraduate students who have completed 12 or more credits at Oakland University may register for as many as 21 credits if their cumulative grade point average is at least 2.60. All other students may take more than 18 credits only with an approved **Permission to Exceed Maximum Credit** form. More than 21 credits also must have Office of the Registrar or designee approval. College guest students must have the approval of the Registrar or designee.

For purposes of awarding academic credit for courses and programs at Oakland University, a credit hour shall be consistent with federal guidelines and is an amount of work represented in intended learning outcomes and verified by evidence of student achievement. The OU-established equivalency reasonably approximates and is not less than:

1. One credit hour consists of 50 minutes of classroom or direct faculty instruction (synchronous or asynchronous) and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit; or
2. At least an equivalent amount of work as required in #1 above of this definition for other academic activities as established by the institution including laboratory work, internships, practica, field work, clinical work, studio work, and other academic work leading to the award of credit hours.

Regardless of their duration, courses contain the same total number of credit hours as if they were scheduled for at least a 15-week semester.

Title IV COURSES – Duration cannot exceed full 15 - week

Class standing

For university purposes, class standing is set at the following numbers of credit hours: students have freshman standing through completion of 27 credit hours, sophomore standing through completion of 55 credit hours, junior standing through completion of 90 credit hours, and senior standing when they have completed 91 credit hours or more.

Regulations governing courses

1. A course sequence joined by a hyphen (e.g., FRH 114-FRH 115) must be taken in the order indicated. The first course in such a sequence is a prerequisite to the second.

2. Course numbers separated by commas (e.g., HST 114, HST 115) indicate related courses that may be taken in any order. However, departmental or program requirements may sometimes govern the order.

3. Course numbers 000-049 are designated for skill development courses specially designed to aid incoming students with significant deficiencies in their academic background in preparing for courses numbered 100 and above. **Credits earned in these courses cannot be used to satisfy minimal graduation requirements in any academic program**. Grades earned in these courses, however, are included in students' grade point averages. Course numbers 050-099 are for courses specially designed to enrich academic skills. No more than 16 credits in courses numbered 050-099 may count toward graduation requirements. Courses numbered 100-299 are introductory undergraduate courses primarily for freshmen and sophomores.

4. Courses numbered 300-499 are designed for juniors and seniors. Courses numbered 500 and above are primarily for graduate students. Qualified undergraduates may enroll in a class numbered 500-599 provided they have obtained an override from the department chair and the course instructor. **Only graduate students are eligible to elect courses numbered 600 and above**. **Consult the Financial Aid Office for the implications.**

5. The university reserves the right to cancel any course in which there is insufficient registration.

6. Prerequisite courses must be completed prior to enrollment in courses for which they are listed. Co-requisite courses must be taken simultaneously. It is the student's responsibility to complete all prerequisites prior to the start of a course with such requirements and to register for co-requisites as indicated in the catalog. Departments may waive prerequisites in accordance with academic unit policy.

7. Some courses are cross-listed among departments. In such cases, the course description is listed only in one department. The listing in the other department notes that the course is identical with the course in the primary department. When registering, students should select the listing under which they wish to receive degree credit.

Course competency

Students may receive credit toward graduation designated as competency credit (graded S/U) on their transcripts for Oakland University courses, subject to the following provisions:

1. That they register for the course at registration with written permission of the departmental chairperson, dean or program director of the academic unit responsible for the course.
2. That they pass an appropriate competency examination not more than six weeks after the term begins. Competency credit will not be permitted for a course when a student has received credit for more advanced courses in the same area.
3. The repeat course rule applies to the repeating of competency examinations (see Repeating courses).
4. That they pay the appropriate charges.

Students may apply up to 60 credits based on non-classroom experience (course competency, Advanced Placement, IB and/or CLEP credits) toward a degree program. Students seeking second degrees are limited to 16 credits of non-classroom experience. Students may not apply non-classroom experience (course competency, Advanced Placement, IB and/or CLEP credits) to satisfy General Education requirements for Writing Intensive in General Education or Writing Intensive in the Major.

Adjusting courses (drop and add)

Courses may be dropped with full refund through the second week of a full semester and the first week of a half semester. Courses may be dropped without academic penalty through the ninth week in a full semester and the fifth week of a half semester. A "W" grade denoting withdrawal is recorded for courses dropped after the second week in full semesters and after the first week in half semester. Failure to drop a course on or before the appropriate drop deadline will result in the recording of a 0.0 grade on the student's record. Courses of other lengths have specific refund and withdrawal dates which are available at oakland.edu/registrar

Auditing courses

A formal audit option is available for students who wish to participate in a course on a non-graded basis. With written permission of the instructor, students may register to audit a course during the late registration period for each semester or session. Forms for auditing classes are available online at oakland.edu/registrar office forms. Audit registrations are governed by the following rules:

1. Regular tuition applies to all courses.
2. The registrar will assign the final mark of Z to all formal audits. If a student pays tuition for regular credit, he or she cannot switch to auditing the course.
3. Changes of registration from credit to audit or from audit to credit will not be permitted once the late registration period has ended for a given semester (two weeks into the term).
4. Students who wish to audit courses must have been admitted to the university by the Undergraduate Admissions.
5. Students whose entire registration for a semester consists of formal audits must register during late registration.

Repeating courses

Students may repeat a course to improve the grade earned in a prior enrollment, but they must do so at Oakland University. Check with Student Financial Services for ramifications. The limit is three attempts at any individual course, including the initial attempt, and excluding drops or withdrawals. The repeat course must be taken on the same grading basis (numeric or pass/fail) as the first attempt. Because some programs have more stringent limits, students should consult an adviser before registering to repeat a course. **Students should be aware that the most recent grade will be the grade of record whether or not it is the highest grade earned**.

Students whose programs allow courses to be repeated at other institutions will not receive transfer credit if Oakland University credit has been earned, nor will they improve their Oakland grade point average. Students must consult an adviser in the major program before registering to repeat a course elsewhere.

Oakland University transcripts will reflect grades earned in all Oakland courses. For repeated courses, the attempts excluded from the grade point average will be marked with an "E" and the grade of record will be marked with an "I" designating inclusion in the grade point average. Transfer students who successfully repeat a course at Oakland for which transfer credit has been awarded will lose the transfer credit. Credit is not given for more than one course covering specific content, which means that most courses can be taken only once. Certain courses, however, generally representing special topics or independent studies, are designed to vary from semester to semester. The Undergraduate Catalog states the applicable credit limit for such courses.

Degree Requirements

Undergraduate degree requirements are of two kinds: general degree requirements determined by the university to be binding on all baccalaureate programs and specific degree requirements established by the various academic units that offer degree programs. Students may choose to meet graduation requirements as presented in any catalog in effect since their matriculation at Oakland University, providing it is not more than six years old at the time of graduation. They also may follow separate catalogs for general and specific requirements, subject to the limitations described below.

An academic unit may require that students changing majors into its programs from another major or undecided status follow both major and college or school requirements (if applicable) from the catalog in effect at the time of change. (A change from pre-major to major standing in the same field does not constitute a change of major). The catalog chosen for the student's major will also be used to determine degree requirements for any minor or concentration the student may be pursuing unless a written plan of study has been approved by the department or school offering that program.

Some academic units require that students file an approved plan of study for a concentration or minor in order to complete program requirements; those that do so stipulate this requirement in the appropriate section of this catalog. Forms for planning and approval of a minor or concentration are available from the advising offices. If the academic unit establishes no such requirement, students are still entitled to negotiate a minor or concentration in writing with the program coordinator. Written plans are particularly encouraged for those students using transfer courses to satisfy some portion of the program. A plan of study may be based on any catalog in effect at time of filing, but not one predating the student's enrollment at Oakland University. Changes to an approved plan require prior written authorization from the concentration or minor coordinator.

Students may meet degree requirements by earning a passing grade in the course, by passing a competency examination or by receiving transfer credit from another institution. In certain circumstances, a requirement may be formally waived through a successful Petition of Exception.

All policies and procedures in this catalog reflect information as it was available on the publication date. Oakland University reserves the right to revise all announcements contained in this publication and at its discretion to make reasonable changes in requirements to improve or upgrade academic and non-academic programs.

Undergraduate degree requirements

Oakland University has established general undergraduate degree requirements applicable to all candidates for all undergraduate degrees. In order to earn a baccalaureate at Oakland University, students must satisfy the following requirements:

1. **General Education**: All students must complete 40 credits of general education, including at least one course (three or more credits) from the list of approved courses offered in each of the following 10 knowledge areas: Writing, Formal Reasoning, Arts, Foreign Language and Culture, Global Perspective, Literature, Natural Science and Technology, Social Science, Western Civilization, and Knowledge Applications. Note that courses in these knowledge areas may not double count with each other. Additional general education requirements include U.S. Diversity, Writing Intensive in General Education, Writing Intensive in the Major, and a Capstone, all of which may be met by double counting approved general education courses. It is possible for a course to be triple counted if, in addition to meeting the requirements for Explorations, Knowledge Applications or Capstone, it also meets the requirements for U.S. Diversity and Writing Intensive in General Education or Writing Intensive in the major. (See course listings below.) Students transferring credit to the university should consult the transfer student

information section. The policy stipulated above is considered a minimum credit requirement that academic units may increase for their own students. Students pursuing degrees in the College of Arts and Sciences should refer to the College exploratory requirements section for additional requirements. Students in the School of Engineering and Computer Science should see that section for specific requirements.

2. **Specific requirements**: Students must select a major or primary field of study and also for some programs, as described in relevant sections of this catalog; they must be admitted to the major by the academic unit offering the program. Students must fulfill all specific undergraduate degree requirements appropriate to their chosen majors as stipulated by the various colleges, schools or other academic units empowered to present candidates for the undergraduate degree(s) over which they have authority. Specializations are groups of related courses within certain major fields; they are options in some major programs; for some other programs, students must select a specialization as part of the major. Concentrations which are groupings of interrelated courses with an interdisciplinary focus, are optional in most programs but required in some. Minors, secondary fields or subject areas of study, are optional. The completion of a Minor/Concentration Authorization form is recommended. Forms for planning and approval of a minor or concentration are available in the advising offices.

3. **Application requirement**: Degree candidates should select **Apply to Graduate under Students Records** in SAIL to submit an Undergraduate Application for Degree prior to the published deadline for the semester of expected graduation.

4. **Approvals**: Degree candidates must have all petitions approved and all transcripts for coursework applicable to the degree submitted by the end of the second week of classes of intended graduation. Failure to do so will result in automatic removal from the graduation list.

5. **Residence requirement**: Students must successfully complete a minimum of 32 credits at Oakland University. They must also complete at Oakland University the last 8 (4 for Bachelor of Integrative Studies designation) credits needed to fulfill the requirements for a baccalaureate. Oakland University limits academic residency to no more than twenty-five percent of the degree requirements for all undergraduate degrees for active-duty service members. Academic residency can be completed at any time while active-duty service members are enrolled. Reservists and National Guardsmen on active-duty are covered in the same manner.

6. **Grade point average**: Students must have a cumulative grade point average (GPA) of at least 2.00 in courses taken at Oakland University. In certain programs, additional GPA requirements must be met.

7. **Upper-level credit requirement**: Students must have successfully completed at least 32 credits in courses at the 300 level or above. Students transferring credits to Oakland University should consult the *Transfer student information section.*

General education

General education philosophy

The major goals of Oakland University's General Education program are to introduce students to a broad base of knowledge and to develop their analytical and evaluative skills, creating a solid foundation for productive and fulfilling lives of leadership, innovation and service. A well-educated person is not a narrow specialist, and the breadth of knowledge acquired through general education cannot be found in any single major. Through its three-part structure of Foundations, Explorations, and Integration, the General Education program complements the major to increase the student's flexibility and options upon graduation.

- The **FOUNDATION** areas that all students must master are *Writing Foundations and Formal Reasoning*. These courses develop skills and understanding that are invaluable for all of the student's subsequent education.
- The **EXPLORATION** areas that students must take include: *Arts, Foreign Language and Culture, Literature, Global Perspectives, Natural Science and Technology, Social Science* and *Western Civilization*. In addition to fundamental abilities, a well-educated person should also have a critical appreciation of the ways we gain knowledge and an understanding of the universe, of society, and of humankind that these courses develop.

- The **INTEGRATION** areas that students must master include: *Knowledge Applications and the Capstone*. For the well-educated person, the knowledge and capacities of the various disciplines and majors do not exist in isolation but form an integrated whole. The Integration Areas allow students to synthesize their knowledge, to see connections among the various disciplines and to apply their knowledge to real world problems. This integrated knowledge forms the basis for students to continue to learn and grow throughout their lives and prepares them for productive lives of service and leadership.

Oakland University's General Education program also helps students develop more advanced writing skills, a breadth in understanding diversity issues in the United States, and a continuous education in the range of intellectual capacities that cut across all areas and disciplines.

- Through two **WRITING INTENSIVE** courses, students gain a depth in both general and discipline-specific writing abilities. *Writing Intensive in General Education* and *Writing Intensive in the Major* may be found in courses that also satisfy the Explorations and Integration areas.
- Oakland University is also committed to ensuring that students develop an understanding of the history, strengths and the challenges of the diversity found across the United States. Through **U.S. DIVERSITY** courses students develop an understanding of the history, strengths, and the challenges of the diversity found across the United States. U.S. diversity courses may also satisfy other areas within the General Education structure.

A sound education also requires capacities that cut across all of these areas, and general education courses are designed to enhance students' abilities in critical thinking, information literacy, effective communication and social awareness.

General Education requirements

Each candidate for an Oakland University baccalaureate is required to satisfactorily complete approved courses in each of the following areas: Foundations, Explorations, and Integration. To fulfill the Foundations requirement, students must satisfactorily complete at least one approved course in both Writing Foundations (F.1) and Formal Reasoning (F.2). To fulfill the Explorations requirements students must satisfactorily complete at least one approved course in each of the following 7 subject areas: Arts (E.1), Foreign Language and Culture (E.2), Global Perspectives (E.3), Literature (E.4), Natural Science & Technology (E.5), Social Science (E.6), and Western Civilization (E.7). To fulfill the Integration requirement students must satisfactorily complete at least one approved course in both Knowledge Application (I.1) and Capstone (I.2). Students should make sure that three of these courses also fulfill their Writing Intensive in General Education (WI.1), Writing Intensive in the Major (WI.2), and U.S. Diversity requirements.

All students must complete 40 credits of general education, including at least one course (of three or more credits) from the list of approved courses offered in each of the following 10 areas: Writing Foundations and Formal Reasoning (F.1 - F.2), Arts, Foreign Language and Culture, Global Perspectives, Literature, Natural Science and Technology, Social Science, Western Civilization (E.1 - E.7), and Knowledge Applications (I.1). Note that courses in these knowledge areas may not double count with each other.

Students using this catalog to meet general education requirements may also use any course subsequently approved by the General Education Committee and published in a later catalog to satisfy requirements in a particular area. If a course listed below is removed from lists of approved courses in later catalogs, it may still be used to meet a general education requirement by students following the 2016-2017 catalog until the catalog expires (six years).

Transfer students should refer to the course catalog section, *Transfer Student Information.*

FOUNDATIONS

F.1. Writing Foundations

The Writing Foundations area prepares students to demonstrate:

- *knowledge of the elements, writing processes and organizing strategies for creating analytical and expository prose*
- *effective rhetorical strategies appropriate to the topic, audience, context and purpose*
  [For alternative ways of meeting this requirement, see the Writing Requirements section that follows the listing of general education area courses]. Students must earn at least a 2.0 in WRT 160 to meet the Writing Foundations requirement.
- WRT 160 - Composition II **(4)**

F.2. Formal Reasoning

The formal reasoning area prepares students to demonstrate:

- *knowledge of one or more formal reasoning systems such as computer programming, mathematics, statistics, linguistics or logic*
- *application of formal reasoning to read, understand, model and solve problems across a variety of applications*

[Note: Formal Reasoning course must be taken prior to student's junior standing]

- CIT 120 - Introduction to Computing and Programming using Excel **(4)**
- CIT 122 - Computer Animation **(4)**
- CIT 130 - Introduction to Computer Programming **(0 OR 4)**
- CSE 120 - Introduction to Computing and Programming using Excel **(4)**
- CSE 130 - Introduction to Computer Programming **(4)**
- EHS 141 - Quantitative Methods for Environmental Health and Safety **(4)**
- LIN 180 - Linguistic Analysis **(4)**
- LIN 183 - Formal Rules of Sound Structure **(4)**
- LIN 184 - Formal Rules of Phrase Structure **(4)**
- MTE 211 - Mathematics for Elementary Education II **(4)**
- MTH 118 - Mathematical Sciences in the Modern World **(4)**
- MTH 121 - Linear Programming Elementary Functions **(4)**
- MTH 122 - Calculus for the Social Sciences **(4)**
- MTH 154 - Calculus I **(4)**
- PHL 102 - Introduction to Logic **(4)**
- PHL 107 - Introduction to Symbolic Logic **(4)**
- PS 321 - Systematic Political Analysis **(4)**
- STA 225 - Introduction to Statistical Concepts and Reasoning **(4)**
- STA 226 - Applied Probability and Statistics **(4)**
- STA 228 - Statistical Methods for Biology **(4)**

EXPLORATIONS

E.1. Arts

The Arts area prepares students to demonstrate:

- *knowledge of cultural or historic artistic traditions in visual, auditory, movement, theatrical or cinematic art*
- *knowledge of the role of art as critical commentary on society and as an aesthetic expression of experience*
- AH 100 - History of Western Art, Prehistory through Medieval **(4)**
- AH 101 - History of Western Art, Renaissance to Present **(4)**
- AH 104 - Arts of Asia and the Islamic World **(4)**

- CIN 150 - Introduction to Film **(4)** (Also meets U.S. Diversity)
- DAN 173 - Dance History and Appreciation **(4)**
- DAN 175 - Dance in American Culture **(4)** (Also meets U.S. Diversity)
- MUS 100 - An Introduction to Music **(4)**
- MUS 101 - What's On Your Playlist? Music Listening and the Self **(4)**
- MUS 102 - Exploring Technology in Music **(4)**
- MUS 105 - Foundations of Rock **(4)** (Also meets U.S. Diversity)
- MUS 106 - Exploring Film Music **(4)**
- MUS 107 - Exploring Jazz **(4)** (Also meets U.S. Diversity)
- MUS 110 - Exploring African Music **(4)**
- MUS 111 - Exploring Caribbean Music **(4)** (Also meets U.S. Diversity)
- MUS 131 - History and Literature of Western Tonal Music **(3)**
- SA 100 - Foundations of Visual Literacy **(4)**
- THA 100 - Introduction to Theatre **(4)**
- THA 301 - Theatre History I **(4)** (Also meets Writing Intensive in Gen Ed)
- THA 302 - Theatre History II **(4)** (Also meets Writing Intensive in Gen Ed)
- THA 306 - Cultural and Historical Development of American Musical Theatre **(4)** (Also meets Writing Intensive in Gen Ed and U.S. Diversity)

E.2. Foreign Language and Culture

The Foreign Language and Culture area prepares students to demonstrate:

- *knowledge of a foreign language and culture*
- *knowledge of linguistic and cultural diversity and the contributions of such diversity to the global society*

[Note: Courses do not count for Global Perspective area]

Students may meet this requirement in one of the following ways:

1. satisfactory completion of any of the courses in the list below;
2. satisfactory completion of a course that has as its prerequisite a 114 level language course (providing the credits from the upper-level course are not used to satisfy any other general education area requirement).

- ALS 176 - The Humanity of Language **(4)**
- ARB 114 - Introduction to Arabic Language and Culture I **(4)**
- CHE 114 - Introduction to Chinese Language and Culture I **(4)**
- FRH 114 - Introduction to French Language and Culture I **(4)**
- FRH 119 - Accelerated Review of Elementary French and French Culture **(4)**
- GRM 114 - Introduction to German Language and Culture I **(4)**
- HBR 114 - Introduction to Hebrew Language and Culture I **(4)**
- IT 114 - Introduction to Italian Language and Culture I **(4)**
- JPN 114 - Introduction to Japanese Language and Culture I **(4)**
- LIN 181 - Introduction to the Development of the English Language **(4)**
- LTN 114 - Introduction to Latin Language and Roman Culture **(4)**
- ML 191 - Tutorial in Foreign Language -- Study Abroad **(3 TO 4)**
- SPN 114 - Introduction to Spanish Language and Culture I **(4)**
- SPN 119 - Accelerated Review of Elementary Spanish and Spanish Culture **(4)**

E.3. Global Perspective

The Global Perspective area prepares students to demonstrate:

- *knowledge of the environments, political systems, economies, societies and religions of one or more regions outside the United States and awareness of the transnational flow of goods, peoples, ideas and values*
- *knowledge of the role that different cultural heritages, past and present, play in forming values in another part of the world, enabling the student to function within a more global context*

- AN 102 - Culture and Human Nature **(4)**
- AN 200 - Global Human Systems **(4)**
- ECN 160 - Introduction to the Global Economy **(4)** (Also meets Writing Intensive in Major)
- ECN 202 - Principles of Global Macroeconomics **(4)**
- ECN 326 - International Economic Development **(3)**
- ENG 260 - Masterpieces of World Cinema **(4)**
- GEO 200 - Global Human Systems **(4)**
- HST 205 - World History **(4)**
- HST 275 - Introduction to Middle East History **(4)**
- IS 200 - Global Human Systems **(4)**
- IS 205 - Issues in Global Health **(4)**
- IS 210 - Perspectives on China **(4)**
- IS 220 - Perspectives on Japan **(4)**
- IS 230 - Perspectives on Africa **(4)** (Also meets Writing Intensive in Gen Ed)
- IS 240 - Perspectives on India **(4)** (Also meets Writing Intensive in Gen Ed)
- IS 250 - Perspectives on Latin America **(4)** (Also meets Writing Intensive in Gen Ed)
- IS 260 - Perspectives on Russia and Eastern Europe **(4)** (Also meets Writing Intensive in Gen Ed)
- IS 270 - Perspectives on the Middle East **(4)** (Also meets Writing Intensive in Gen Ed)
- MGT 110 - Contemporary World Business **(4)** (Also meets Writing Intensive in Gen Ed)
- MUS 110 - Exploring African Music **(4)**
- PS 114 - Issues in World Politics **(4)**
- PS 131 - Comparative Politics **(4)** (Also meets Writing Intensive in Gen Ed)
- REL 101 - Introduction to Islam **(4)**
- REL 102 - Introduction to Judaism **(4)**
- REL 103 - Introduction to Christianity **(4)**
- REL 150 - World Religious Traditions **(4)**
- WRT 360 - Global Rhetorics **(4)** (Also meets Writing Intensive in Gen Ed)
- WGS 302 - Global Women, Global Issues **(4)**

E.4. Literature

The Literature area prepares students to demonstrate:

- *knowledge of how literature is an expression of culture*
- *knowledge of literary form*
- ENG 100 - Masterpieces of World Literature **(4)**
- ENG 105 - Introduction to Shakespeare **(4)**
- ENG 111 - Modern Literature **(4)**
- ENG 112 - Literature of Ethnic America **(4)** (Also meets U.S. Diversity)
- ENG 224 - American Literature **(4)**
- ENG 241 - British Literature **(4)**
- ENG 250 - Film and Formal Analysis **(4)**
- ENG 303 - Fiction **(4)**
- ENG 305 - The Bible as Literature **(4)**
- ENG 306 - Drama **(4)**
- ENG 312 - Classical Mythology **(4)**
- LIT 100 - Introduction to Asian Literature **(4)**
- LIT 181 - European Literature I **(4)**
- LIT 182 - European Literature II **(4)**
- REL 353 - The Bible as Literature **(4)**

E.5. Natural Science and Technology

The Natural Science and Technology area prepares students to demonstrate:

- *knowledge of major concepts from natural science or technology, including developing and testing of hypotheses; drawing conclusions; and reporting of findings and some laboratory experience or an effective substitute*
- *how to evaluate sources of information in science or technology*
- BIO 104 - Human Biology **(4)**
- BIO 110 - Life on Earth **(4)**
- BIO 111 - Biology I **(4)**
- BIO 113 - Biology II **(4)**
- BIO 300 - Biology and Society **(4)** (Also meets Writing Intensive in Gen Ed)
- CHM 104 - Introduction to Chemical Principles **(4)**
- CHM 144 - General Chemistry I **(4)** and CHM 147 - General Chemistry Laboratory I
- CHM 300 - Chemistry, Society Health **(4)** (Also meets Writing Intensive in Gen Ed)
- EGR 240 - Introduction to Electrical and Computer Engineering **(4)**
- EGR 250 - Introduction to Thermal Engineering **(4)**
- ENV 308 - Introduction to Environmental Studies **(4)**
- GEO 106 - Earth Science/Physical Geography **(4)**
- HS 201 - Health in Personal and Occupational Environments **(4)**
- LIN 182 - Language and the Brain **(4)**
- PHY 101 - General Physics I **(4)** and PHY 110 - General Physics Lab I
- PHY 104 - Astronomy: The Solar System **(4)**
- PHY 105 - Astronomy: Stars and Galaxies **(4)**
- PHY 106 - Earth Science/Physical Geography **(4)**
- PHY 115 - Energy **(4)**
- PHY 120 - The Physics of Everyday Life **(4)**
- PHY 151 - Introductory Physics I **(4)** and PHY 110 - General Physics Lab I
- SCI 100 - Physical Sciences in Life, the World and Beyond **(4)**

E.6. Social Science

The Social Science area prepares students to demonstrate:

- *knowledge of concepts, methods and theories designed to enhance understanding of human behavior and/or societies*
- *application of concepts and theories to problems involving individuals, institutions, or nations*
- AN 101 - Human and Cultural Evolution **(4)**
- AN 102 - Culture and Human Nature **(4)**
- AN 300 - Culture, Society and Technology **(4)**
- COM 287 - Media and Social Identity **(4)**
- ECN 150 - Economics in Today's World **(4)**
- ECN 200 - Principles of Macroeconomics **(4)**
- ECN 201 - Principles of Microeconomics **(4)**
- ECN 202 - Principles of Global Macroeconomics **(4)**
- ECN 210 - Principles of Economics **(6)**
- HS 302 - Community and Public Health **(4)** (Also meets U.S. Diversity)
- ISE 170 - Learning How to Learn **(4)**
- PS 100 - Introduction to American Politics **(4)** (Also meets U.S. Diversity)
- PS 114 - Issues in World Politics **(4)**
- PS 131 - Comparative Politics **(4)** (Also meets Writing Intensive in Gen Ed)
- PS 312 - The Politics of Race and Ethnicity **(4)** (Also meets U.S. Diversity and Writing Intensive in Gen Ed)
- PSY 100 - Introduction to Psychology **(4)**
- SOC 100 - Introduction to Sociology **(4)** (Also meets U.S. Diversity)

- SOC 206 - Self and Society **(4)**
- WGS 200 - Introduction to Women and Gender Studies **(4)** (Also meets U.S. Diversity)
- WGS 302 - Global Women, Global Issues **(4)**

E.7. Western Civilization

The Western Civilization area prepares students to demonstrate:

- *knowledge of the historical events and/or philosophical ideas of European or American culture*
- *knowledge of how Western ideas or institutions have evolved over time*
- AN 300 - Culture, Society and Technology **(4)**
- COM 375 - Rise of Electronic Media **(4)**
- HST 101 - Introduction to European History Before 1715 **(4)**
- HST 102 - Introduction to European History Since 1715 **(4)**
- HST 114 - Introduction to American History Before 1877 **(4)** (Also meets U.S. Diversity)
- HST 115 - Introduction to American History Since 1877 **(4)** (Also meets U.S. Diversity)
- HST 210 - Science and Technology in Western Culture **(4)**
- HST 292 - History of the African-American People **(4)** (Also meets U.S. Diversity)
- LBS 100 - Exploration of the Arts and Sciences **(4)**
- MGT 235 - Commerce in Western Civilization **(3)**
- MUS 103 - Music, Culture and Western Civilization **(4)**
- PHL 101 - Introduction to Philosophy **(4)**
- PHL 103 - Introduction to Ethics **(4)**
- PHL 104 - Introduction to Ethics in Science and Engineering **(4)**
- PS 377 - Communism **(4)** (Also meets Writing Intensive in Gen Ed)

INTEGRATION

I.1. Knowledge Applications

The Knowledge Applications area prepares students to demonstrate:

- *how knowledge in a field outside of the student's major can be evaluated and applied to solve problems across a range of applications*
- *knowledge of the personal, professional, ethical, and societal implications of these applications*
  [Note: Course must be outside the rubric of the student's major] Prerequisite for the application area is shown in parentheses.
- AH 262 - Introduction to the History of Western Architecture **(4)** (Arts)
- AH 310 - Art of the Ancient Near East **(4)** (Arts)
- AH 312 - Greek Art **(4)** (Arts)
- AH 314 - Roman Art **(4)** (Arts)
- AH 387 - Critical Thinking and Writing in Art History II **(4)** (Also meets Writing Intensive in General Education) (Arts)
- AMS 300 - Topics in American Culture **(4)** (Western Civilization) (Also meets U.S. Diversity)
- AN 331 - Racial and Ethnic Relations **(4)** (Social Science) (Also meets U.S. Diversity)
- AN 385 - Historical Archaeology **(4)** (Social Science) (Also meets U.S. Diversity)
- APM 163 - Mathematics for Information Technology **(4)** (Formal Reasoning or Natural Science and Technology)
- ARB 214 - Second Year Arabic I **(4)** (Foreign Language and Culture)
- ARB 215 - Second Year Arabic II **(4)** (Foreign Language and Culture)
- CIT 252 - Interactive Web Systems **(4)** (Formal Reasoning)
- CHE 214 - Second Year Chinese I **(4)** (Foreign Language and Culture)
- CHE 215 - Second Year Chinese II **(4)** (Foreign Language and Culture)
- CSE 252 - Interactive Web Systems **(4)** (Formal Reasoning)
- ECN 303 - Managerial Economics **(3)** (Formal Reasoning and Social Science)
- ENG 309 - Adaptation: Fiction, Drama, Film **(4)** (Literature)
- ENG 310 - Biography **(4)** (Western Civilization)

- ENG 342 - African American Literature **(4)** (Literature) (Also meets U.S. Diversity)
- ENV 354 - Global Environmental Governance **(4)** (Social Science) (Also meets Writing Intensive in Gen Ed)
- FRH 214 - Second Year French I **(4)** (Foreign Language and Culture)
- FRH 215 - Second Year French II **(4)** (Foreign Language and Culture)
- GRM 214 - Second Year German I **(4)** (Foreign Language and Culture)
- GRM 215 - Second Year German II **(4)** (Foreign Language and Culture)
- HBR 214 - Second Year Hebrew I **(4)** (Foreign Language and Culture)
- HBR 215 - Second Year Hebrew II **(4)** (Foreign Language and Culture)
- HRD 304 - Lean Principles and Practices in Organizations **(4)** (Writing Intensive in General Education or Social Science)
- HRD 307 - Presentation and Facilitation **(4)** (Writing Intensive in General Education or Social Science)
- HRD 323 - Negotiation for Personal Success **(4)** (Social Science)
- HRD 351 - Fundamentals of Human Interaction **(4)** (Writing Intensive in General Education or Social Science)
- HRD 404 - Lean Kaizen in Organizations **(4)** (Social Science)
- IS 301 - The Global Citizen **(4)** (Global Perspective, Writing Intensive in Gen Ed)
- IS 395 - Globalization and the International System **(4)** (Global Perspective)
- ISE 150 - How Things Work **(4)** (Writing Foundations)
- ISE 310 - Engineering a Great Life **(4)** (Formal Reasoning, Social Science and Natural Science)
- JRN 200 - Introduction to Journalism and News Writing **(4)** (Writing Foundations)
- JPN 214 - Second Year Japanese I **(4)** (Foreign Language and Culture)
- JPN 215 - Second Year Japanese II **(4)** (Foreign Language and Culture)
- LIB 250 - Introduction to Library Research and Technology in the Information Age **(4)** (Writing Foundations)
- MTH 155 - Calculus II **(4)** (Formal Reasoning)
- MUS 220 - Computer-based Music Composition **(4)** (Arts)
- MUS 225 - Exploring Songwriting **(4)** (Arts)
- NRS 304 - Human Sexuality **(4)** (Natural Science and Technology or Social Science) (Also meets U.S. Diversity)
- PHL 200 - Fact, Value, and Knowledge **(4)** (Formal Reasoning)(Also meets Writing Intensive in Gen Ed)
- PHL 204 - Ancient Greek Philosophy **(4)** (Western Civilization)(Also meets Writing Intensive in Gen Ed)
- PHL 205 - Medieval Philosophy **(4)** (Western Civilization)(Also meets Writing Intensive in Gen Ed)
- PHL 206 - Early Modern Philosophy **(4)** (Western Civilization)(Also meets Writing Intensive in Gen Ed)
- PHL 314 - Ethics, Language and Reality **(4)** (Writing Intensive in General Education)
- PHL 340 - Metaphysics **(4)** (Formal Reasoning)(Also meets Writing Intensive in Gen Ed)
- PHL 345 - Theories of Truth **(4)** (Western Civilization) (Also meets Writing Intensive in Gen Ed)
- PHL 475 - Philosophy of Language **(4)** (Formal Reasoning)
- PHY 102 - General Physics II **(4)** (Natural Science and Technology)
- PHY 109 - Principles of Physics II **(4)** (Natural Science and Technology)
- PHY 152 - Introductory Physics II **(4)** (Formal Reasoning or Natural Science and Technology)
- PHY 162 - Fundamentals of Physics II **(4)** (Natural Science and Technology)
- PS 354 - Global Environmental Governance **(4)** (Social Science) (Also meets Writing Intensive in Gen Ed)
- PSY 225 - Introduction to Life-Span Developmental Psychology **(4)** (Social Science)
- QMM 240 - Statistical Methods for Business I **(3)** (Formal Reasoning)
- QMM 241 - Statistical Methods for Business II **(3)** (Formal Reasoning)
- QMM 250 - Statistical Methods for Business **(6)** (Formal Reasoning)
- REL 351 - Religion in the Modern World **(4)** (Social Science or Global Perspective)
- REL 355 - Science and Religion **(4)** (Natural Science and Technology)
- SA 105 - Drawing for Non-Majors **(4)** (Arts)
- SA 160 - Photography for Non-Majors **(4)** (Arts)
- SOC 331 - Racial and Ethnic Relations **(4)** (Social Science) (Also meets U.S. Diversity)
- SPN 214 - Second Year Spanish I **(4)** (Foreign Language and Culture)
- SPN 215 - Second Year Spanish II **(4)** (Foreign Language and Culture)

- WGS 385 - Historical Archaeology **(4)** (Social Science) (Also meets U.S. Diversity)
- WHP 310 - Injury Prevention, Control, and Safety Promotion **(4)** (Natural Science and Technology or Social Science) (Also meets Writing Intensive in Gen Ed)
- WHP 315 - Laughter as Therapeutic Modality **(4)** (Natural Science and Technology or Social Science) (Also meets Writing Intensive in Gen Ed)
- WRT 320 - Writing Center Studies and Tutoring Practice **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 335 - Writing for Human Resource Professionals **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 342 - History of Rhetoric **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 364 - Writing About Culture: Ethnography **(4)** (Writing Foundations) (Also meets U.S. Diversity and Writing Intensive in Gen Ed)
- WRT 380 - Special Topics in Professional Writing **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 382 - Business Writing **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 386 - Workshop in Creative Non-Fiction **(4)** (Also meets Writing Intensive in Gen Ed)
- WRT 460 - Writing Across the University: Language and Disciplinary Culture **(4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
- WRT 490 - Independent Study **(1 TO 4)** (Writing Foundations) (Also meets Writing Intensive in Gen Ed)

I.2. CAPSTONE

The Capstone course prepares students to demonstrate:

- *appropriate uses of a variety of methods of inquiry and a recognition of ethical considerations that arise*
- *the ability to integrate the knowledge learned in general education and its relevance to the student's life and career*

[Note: Requirement may be met by an approved course in the major or an approved course outside of the major. Courses approved to meet this requirement will be announced. Please check with your adviser.

- ACS 450 - Financial Mathematics **(3)**
- AH 495 - Senior Thesis in Art History I **(2)**
- AH 496 - Senior Thesis in Art History II **(2)**
- AN 470 - Anthropological Theory **(4)**
- APM 450 - Risk Management **(3)**
- BCM 457 - Biochemistry Laboratory **(3)**
- BIO 495 - Scientific Inquiry and Communication **(4)**
- BIO 499 - Integrative Biomedicine and Disease **(4)**
- CHM 457 - Biochemistry Laboratory **(3)**
- CHM 491 - Independent Research **(3)**
- CIN 415 - Advanced Topics in Film Theory **(4)**
- CIN 450 - Advanced Topics in Film **(4)**
- CIT 480 - Senior Capstone Project **(4)**
- COM 399 - Community Field Experience **(4)**
- COM 491 - Internship **(4)**
- COM 495 - Senior Research Seminar **(4)**
- CRJ 490 - Capstone: Criminal Justice Policy Analysis **(4)**
- CSE 480 - Senior Capstone Project **(4)**
- DAN 370 - Choreography III **(4)**
- DES 491 - Senior Thesis in Graphic Design **(4)**
- ECE 491 - Senior Design **(4)**
- ECN 409 - Urban and Regional Economics **(3)**
- ECN 418 - Seminar in Economic Policy **(3)**
- ECN 421 - Monetary Economics **(3)**
- ECN 450 - Risk Management **(3)**

- ECN 456 - Public Finance **(3)**
- EED 455 - Internship in Elementary Education **(12)**
- EGB 490 - Research Project/Capstone Design **(3)**
- EHS 499 - Environmental Health and Safety Capstone Course Internship **(3)**
- ENG 400 - Advanced Topics in Literature and Language **(4)**
- ENG 401 - Studies in Literary Kinds **(4)**
- ENG 410 - Advanced Workshop in Fiction **(4)**
- ENG 411 - Advanced Workshop in Poetry **(4)**
- ENG 413 - Advanced Workshop in Dramatic Writing for the Screen **(4)**
- ENG 414 - Advanced Workshop in Dramatic Writing for Television **(4)**
- ENG 420 - Trans-Atlantic Traditions **(4)**
- ENG 453 - Studies in Major Authors **(4)**
- ENG 465 - Shakespeare Seminar **(4)**
- ENV 470 - Environmental Science Internship **(3)**
- EXS 350 - Human Motion Analysis **(4)**
- EXS 401 - Practicum in Exercise Science **(5)**
- FRH 416 - French Literature from the Middle Ages through the Sixteenth Century **(4)**
- FRH 417 - French Literature - Seventeenth and Eighteenth Centuries **(4)**
- FRH 419 - French Literature - Nineteenth Century **(4)**
- FRH 420 - French Literature - Twentieth Century **(4)**
- FRH 480 - Undergraduate Seminar **(2 OR 4)**
- GRM 413 - German Literature from the Middle Ages through the Seventeenth Century **(4)**
- GRM 418 - German Literature - Eighteenth Century **(4)**
- GRM 419 - German Literature - Nineteenth Century **(4)**
- GRM 420 - German Literature - Twentieth Century **(4)**
- GRM 480 - Undergraduate Seminar **(2 OR 4)**
- HRD 499 - Internship in HRD **(8)**
- HS 402 - Field Experience in Integrative Studies **(4)**
- HS 450 - Law, Values and Health Care **(4)**
- HST 494 - Capstone Seminar in Cross-Cultural History **(4)**
- HST 495 - Capstone Seminar in European History **(4)**
- HST 496 - Capstone Seminar in World Civilization **(4)**
- HST 497 - Capstone Seminar in American History **(4)**
- IS 490 - Directed Research in International Studies **(2 TO 8)**
- ISE 310 - Engineering a Great Life **(4)**
- ISE 491 - Senior Design **(4)**
- JPN 420 - Japanese Literature - Nineteenth and Twentieth Centuries **(4)**
- JRN 404 - Journalism Internship **(4)**
- JRN 412 - OU Student News Bureau **(4)**
- LBS 496 - Senior Thesis II **(4)**
- LIN 470 - The History of Linguistics **(4)**
- ME 492 - Senior Mechanical Engineering Design Project **(4)**
- MGT 435 - Management Strategies and Policies **(4)**
- MTH 414 - History of Mathematics **(4)**
- MUA 499 - Senior Recital **(4 or 6)**
- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis **(4)**
- MUS 423 - Berlin's Musical Cultures: 1900-1989 **(4)**
- MUS 430 - Seminar in Opera and Drama **(4)**
- MUS 431 - Teaching Music in the 21st Century I **(3)**
- NRS 473 - Nursing Synthesis: Clinical **(5)**

- NRS 475 - Nursing Capstone Experience **(4)**
- PHL 465 - Seminar on a Philosophical Topic **(4)**
- PHY 400 - Undergraduate Seminar **(3)**
- PHY 490 - Independent Research **(3 TO 6)**
- PS 458 - Public Administration Internship **(4)**
- PS 459 - Political Science/International Relations Internship **(4)**
- PS 470 - Seminar in American Politics **(4)**
- PS 472 - Seminar in International Relations **(4)**
- PS 476 - Seminar in the Comparative Study of Political Systems **(4)**
- PSY 399 - Field Experience in Psychology **(4)**
- PSY 401 - History of Psychology **(4)**
- PSY 415 - Seminar in Cognition, Perception, and Biological Psychology **(4)**
- PSY 416 - Seminar: Psychopharmacology **(4)**
- PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children **(4)**
- PSY 423 - Seminar: Resilient Aging **(4)**
- PSY 424 - Seminar: Moral Development **(4)**
- PSY 425 - Seminar in Developmental Psychology **(4)**
- PSY 435 - Seminar in Social Psychology **(4)**
- PSY 450 - Advanced Research Design in Psychology **(4)**
- PSY 483 - Readings and Research Projects **(4)**
- PSY 484 - Readings and Research Projects **(4)**
- PSY 485 - Readings and Research Projects **(4)**
- PSY 494 - Honors Independent Studies I **(4)**
- SA 491 - Senior Thesis in Studio Art **(4)**
- SED 455 - Internship in Secondary Education **(4 TO 12)**
- SOC 400 - Sociological Theory **(4)**
- SPN 416 - Spanish Literature - Fifteenth and Sixteenth Centuries **(4)**
- SPN 417 - Spanish Literature - Seventeenth Century **(4)**
- SPN 418 - Cervantes **(4)**
- SPN 419 - Spanish Literature - Eighteenth and Nineteenth Centuries **(4)**
- SPN 420 - Spanish Literature - Twentieth Century **(4)**
- SPN 488 - Spanish-American Literature before 1888 **(4)**
- SPN 489 - Spanish-American Literature after 1888 **(4)**
- STA 428 - Introduction to Mathematical Statistics II **(4)**
- SW 433 - Social Work Seminar II **(4)**
- THA 407 - Advanced Directing Project **(2)**
- THA 420 - Advanced Performance Projects **(0 OR 2)**
- THA 425 - Advanced Design and Technology Projects **(2)**
- THA 482 - Classical Theatre Study in Greece **(4)**
- THA 491 - Internship **(2 OR 4)**
- THA 495 - Company Class **(2 OR 4)**
- WGS 405 - Women and Gender Studies Capstone Course **(4)**
- WHP 401 - Internship in Wellness, Health Promotion and Injury Prevention **(4)**
- WRT 491 - Capstone **(4)**

WRITING INTENSIVE

WI.1. General Education Writing Intensive

(Note: Requirement cannot be met with WRT 150 or WRT 160. Course may double count with an approved general education course. Students must have earned a grade of 2.0 in the Writing Foundations course to enroll in a Writing Intensive in General Education course. Students may substitute a second course from Writing Intensive in the Major (WI.2.) to satisfy this requirement. Students may not apply non-classroom experience (course competency, Advanced Placement and/or CLEP credits) to satisfy General Education requirements for Writing Intensive in General Education.)

- AH 291 - Concepts of Modern and Postmodern Art **(4)**
- AH 362 - Art Since 1960 **(4)**
- AH 387 - Critical Thinking and Writing in Art History II **(4)**
- AH 495 - Senior Thesis in Art History I **(2)**
- AH 496 - Senior Thesis in Art History II **(2)**
- BIO 300 - Biology and Society **(4)**
- CHM 300 - Chemistry, Society Health **(4)**
- COM 385 - Multicultural Communication **(4)**
- ECN 326 - International Economic Development **(3)**
- EED 420 - Managing the Classroom Community for U.S. Diverse Learners **(4)**
- ENG 380 - Advanced Critical Writing **(4)**
- ENV 354 - Global Environmental Governance **(4)**
- EXS 350 - Human Motion Analysis **(4)**
- HST 326 - The Italian Renaissance **(4)**
- HST 331 - Science and Medicine in the Ancient World **(4)**
- HST 346 - The Scientific Revolution **(4)**
- IS 230 - Perspectives on Africa **(4)**
- IS 240 - Perspectives on India **(4)**
- IS 250 - Perspectives on Latin America **(4)**
- IS 260 - Perspectives on Russia and Eastern Europe **(4)**
- IS 270 - Perspectives on the Middle East **(4)**
- IS 301 - The Global Citizen **(4)**
- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 329 - Digital Storytelling for the Media: Diversity, Identity, and Community **(4)**
- JRN 412 - OU Student News Bureau **(4)**
- LIB 250 - Introduction to Library Research and Technology in the Information Age **(4)**
- LBS 200 - Interdisciplinary Approaches to Liberal Studies **(4)**
- LBS 496 - Senior Thesis II **(4)**
- LIN 470 - The History of Linguistics **(4)**
- MGT 110 - Contemporary World Business **(4)**
- MGT 435 - Management Strategies and Policies **(4)**
- PHL 200 - Fact, Value, and Knowledge **(4)**
- PHL 204 - Ancient Greek Philosophy **(4)**
- PHL 205 - Medieval Philosophy **(4)**
- PHL 206 - Early Modern Philosophy **(4)**
- PHL 314 - Ethics, Language and Reality **(4)**
- PHL 340 - Metaphysics **(4)**
- PHL 345 - Theories of Truth **(4)**
- PS 131 - Comparative Politics **(4)**
- PS 312 - The Politics of Race and Ethnicity **(4)**
- PS 354 - Global Environmental Governance **(4)**
- PS 377 - Communism **(4)**
- PSY 316 - Cognitive Psychology **(4)**

- PSY 318 - Biological Psychology **(4)**
- PSY 321 - Child Development **(4)**
- PSY 322 - Adolescence and Youth **(4)**
- PSY 323 - Adulthood and Aging **(4)**
- PSY 330 - Social Cognition **(4)**
- PSY 333 - Motivation **(4)**
- PSY 339 - Emotion **(4)**
- PSY 343 - Child Psychopathology **(4)**
- PSY 344 - Behavior Analysis **(4)**
- PSY 401 - History of Psychology **(4)**
- REL 101 - Introduction to Islam **(4)**
- REL 102 - Introduction to Judaism **(4)**
- THA 301 - Theatre History I **(4)**
- THA 302 - Theatre History II **(4)**
- THA 306 - Cultural and Historical Development of American Musical Theatre **(4)**
- WGS 382 - Sexual Orientation, Gender Identity and Education **(4)**
- WHP 310 - Injury Prevention, Control, and Safety Promotion **(4)**
- WHP 315 - Laughter as Therapeutic Modality **(4)**
- WRT 320 - Writing Center Studies and Tutoring Practice **(4)**
- WRT 330 - Digital Identity and Culture **(4)**
- WRT 335 - Writing for Human Resource Professionals **(4)**
- WRT 340 - Contemporary Issues in Writing and Rhetoric **(4)**
- WRT 342 - History of Rhetoric **(4)**
- WRT 360 - Global Rhetorics **(4)**
- WRT 364 - Writing About Culture: Ethnography **(4)**
- WRT 380 - Special Topics in Professional Writing **(4)**
- WRT 381 - Science Writing **(4)**
- WRT 382 - Business Writing **(4)**
- WRT 386 - Workshop in Creative Non-Fiction **(4)**
- WRT 460 - Writing Across the University: Language and Disciplinary Culture **(4)**
- WRT 490 - Independent Study **(1 TO 4)**
- WRT 491 - Capstone **(4)**

WI.2. Writing Intensive in the Major

(Note: Course may double count with an approved major course. Students must have earned a grade of 2.0 in the Writing Foundations course to enroll in a Writing Intensive in the Major course. Students whose major department does not offer a Writing Intensive in the Major course may substitute a second course from Writing Intensive in General Education (WI.1.) to satisfy this requirement. Students may not apply non-classroom experience (course competency, Advanced Placement and/or CLEP credits) to satisfy General Education requirements for Writing Intensive in the Major.)

- AH 200 - Critical Thinking and Writing in Art History I **(4)**
- AH 291 - Concepts of Modern and Postmodern Art **(4)**
- AH 362 - Art Since 1960 **(4)**
- AH 364 - History and Theory of Graphic Design **(4)**
- AH 387 - Critical Thinking and Writing in Art History II **(4)**
- AH 495 - Senior Thesis in Art History I **(2)**
- AH 496 - Senior Thesis in Art History II **(2)**
- AHS 450 – Law, Values and Health Care **(4)**
- ALS 335 - Psycholinguistics **(4)**
- AN 470 - Anthropological Theory **(4)**
- BCM 457 - Biochemistry Laboratory **(3)**

- BIO 300 - Biology and Society **(4)**
- BIO 405 - Directed Readings in Biology **(1 TO 4)**
- BIO 495 - Scientific Inquiry and Communication **(4)**
- BIO 499 - Integrative Biomedicine and Disease **(4)**
- CHM 300 - Chemistry, Society Health **(4)**
- CHM 348 - Physical Chemistry Laboratory **(2)**
- CHM 457 - Biochemistry Laboratory **(3)**
- CIN 252 - Methods of Cinema Studies **(4)**
- CIN 450 - Advanced Topics in Film **(4)**
- CIT 480 - Senior Capstone Project **(4)**
- COM 385 - Multicultural Communication **(4)**
- COM 399 - Community Field Experience **(4)**
- COM 411 - Rhetorical Criticism in Communication **(4)**
- COM 491 - Internship **(4)**
- COM 495 - Senior Research Seminar **(4)**
- CRJ 430 - Internship in Criminal Justice **(4)**
- CRJ 490 - Capstone: Criminal Justice Policy Analysis **(4)**
- CSE 480 - Senior Capstone Project **(4)**
- DAN 380 - Contemporary Dance History: Revolution and Revisionism **(4)**
- ECE 491 - Senior Design **(4)**
- ECN 160 - Introduction to the Global Economy **(4)**
- ECN 409 - Urban and Regional Economics **(3)**
- ECN 418 - Seminar in Economic Policy **(3)**
- ECN 421 - Monetary Economics **(3)**
- ECN 456 - Public Finance **(3)**
- EED 312 - Exploring K-8 Teaching: Responsibilities and Opportunities in Education **(3)**
- EED 313 - Advanced Exploration of K-8 Teaching **(2)**
- EED 420 - Managing the Classroom Community for U.S. Diverse Learners **(4)**
- EGB 490 - Research Project/Capstone Design **(3)**
- ENG 400 - Advanced Topics in Literature and Language **(4)**
- ENG 401 - Studies in Literary Kinds **(4)**
- ENG 410 - Advanced Workshop in Fiction **(4)**
- ENG 411 - Advanced Workshop in Poetry **(4)**
- ENG 413 - Advanced Workshop in Dramatic Writing for the Screen **(4)**
- ENG 414 - Advanced Workshop in Dramatic Writing for Television **(4)**
- ENG 420 - Trans-Atlantic Traditions **(4)**
- ENG 453 - Studies in Major Authors **(4)**
- ENG 465 - Shakespeare Seminar **(4)**
- EHS 446 - Industrial and Environmental Toxicology **(3)**
- ENV 354 - Global Environmental Governance **(4)**
- ENV 446 - Industrial and Environmental Toxicology **(3)**
- ENV 470 - Environmental Science Internship **(3)**
- EXS 350 - Human Motion Analysis **(4)**
- FRH 318 - French Composition **(2)**
- FRH 416 - French Literature from the Middle Ages through the Sixteenth Century **(4)**
- FRH 417 - French Literature - Seventeenth and Eighteenth Centuries **(4)**
- FRH 419 - French Literature - Nineteenth Century **(4)**
- FRH 420 - French Literature - Twentieth Century **(4)**
- FRH 480 - Undergraduate Seminar **(2 OR 4)**
- GRM 318 - German Composition **(2)**

- HRD 499 - Internship in HRD **(8)**
- HS 402 - Field Experience in Integrative Studies **(4)**
- HS 450 - Law, Values and Health Care **(4)**
- HST 300 - Seminar in Historical Research **(4)**
- ISE 491 - Senior Design **(4)**
- JPN 318 - Japanese Composition **(2)**
- JPN 420 - Japanese Literature - Nineteenth and Twentieth Centuries **(4)**
- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 329 - Digital Storytelling for the Media: Diversity, Identity, and Community **(4)**
- JRN 404 - Journalism Internship **(4)**
- JRN 412 - OU Student News Bureau **(4)**
- LBS 200 - Interdisciplinary Approaches to Liberal Studies **(4)**
- LBS 496 - Senior Thesis II **(4)**
- LIN 470 - The History of Linguistics **(4)**
- ME 492 - Senior Mechanical Engineering Design Project **(4)**
- MGT 435 - Management Strategies and Policies **(4)**
- MTH 414 - History of Mathematics **(4)**
- MUS 331 - History and Literature of Medieval and Renaissance Music **(3)**
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present **(3)**
- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis **(4)**
- MUS 430 - Seminar in Opera and Drama **(4)**
- MUS 431 - Teaching Music in the 21st Century I **(3)**
- NRS 452 - Research Basis of Nursing Practice **(3 OR 4)**
- PHL 200 - Fact, Value, and Knowledge **(4)**
- PHL 204 - Ancient Greek Philosophy **(4)**
- PHL 205 - Medieval Philosophy **(4)**
- PHL 206 - Early Modern Philosophy **(4)**
- PHL 314 - Ethics, Language and Reality **(4)**
- PHL 340 - Metaphysics **(4)**
- PHL 345 - Theories of Truth **(4)**
- PHY 400 - Undergraduate Seminar **(3)**
- PHY 490 - Independent Research **(3 TO 6)**
- PS 312 - The Politics of Race and Ethnicity **(4)**
- PS 314 - International Politics: Theory and Practice **(4)**
- PS 337 - The Russian Political System **(4)**
- PS 350 - Public Administration **(4)**
- PS 354 - Global Environmental Governance **(4)**
- PS 371 - American Political Thought **(4)**
- PS 372 - Western Political Thought I **(4)**
- PS 373 - Western Political Thought II **(4)**
- PS 374 - Politics Through Literature **(4)**
- PS 377 - Communism **(4)**
- PSY 316 - Cognitive Psychology **(4)**
- PSY 318 - Biological Psychology **(4)**
- PSY 321 - Child Development **(4)**
- PSY 322 - Adolescence and Youth **(4)**
- PSY 323 - Adulthood and Aging **(4)**
- PSY 330 - Social Cognition **(4)**
- PSY 333 - Motivation **(4)**
- PSY 339 - Emotion **(4)**

- PSY 343 - Child Psychopathology **(4)**
- PSY 344 - Behavior Analysis **(4)**
- PSY 401 - History of Psychology **(4)**
- SA 200 - Critical Theory and Practice in Art **(4)**
- SED 300 - Introduction to Secondary Education **(1 TO 4)**
- SED 301 - Public Education for Prospective K-12 Teachers **(2)**
- SOC 315 - Social Welfare Policies **(4)**
- SOC 400 - Sociological Theory **(4)**
- SPN 408 - Advanced Spanish Conversation and Composition **(4)**
- SPN 416 - Spanish Literature - Fifteenth and Sixteenth Centuries **(4)**
- SPN 417 - Spanish Literature - Seventeenth Century **(4)**
- SPN 418 - Cervantes **(4)**
- SPN 419 - Spanish Literature - Eighteenth and Nineteenth Centuries **(4)**
- SPN 420 - Spanish Literature - Twentieth Century **(4)**
- SPN 488 - Spanish-American Literature before 1888 **(4)**
- SPN 489 - Spanish-American Literature after 1888 **(4)**
- STA 402 - Applied Linear Models I **(4)**
- SW 315 - Social Welfare Policies **(4)**
- SW 433 - Social Work Seminar II **(4)**
- THA 301 - Theatre History I **(4)**
- THA 302 - Theatre History II **(4)**
- WGS 405 - Women and Gender Studies Capstone Course **(4)**
- WHP 310 - Injury Prevention, Control, and Safety Promotion **(4)**
- WHP 315 - Laughter as Therapeutic Modality **(4)**
- WRT 320 - Writing Center Studies and Tutoring Practice **(4)**
- WRT 330 - Digital Identity and Culture **(4)**
- WRT 340 - Contemporary Issues in Writing and Rhetoric **(4)**
- WRT 342 - History of Rhetoric **(4)**
- WRT 360 - Global Rhetorics **(4)**
- WRT 364 - Writing About Culture: Ethnography **(4)**
- WRT 380 - Special Topics in Professional Writing **(4)**
- WRT 386 - Workshop in Creative Non-Fiction **(4)**
- WRT 460 - Writing Across the University: Language and Disciplinary Culture **(4)**
- WRT 490 - Independent Study **(1 TO 4)**
- WRT 491 - Capstone **(4)**

U.S. DIVERSITY

U.S. Diversity prepares the student to demonstrate:
knowledge of how diverse value systems and societal structures in the United States are influenced by at least two of the following: race, gender, and ethnicity identify major challenges and issues these raise in society. Approved diversity courses may double count in the major and/or general education.

- AH 362 - Art Since 1960 **(4)** (Also meets Writing Intensive in Gen Ed)
- ALS 374 - Cross-Cultural Communication **(4)**
- AMS 300 - Topics in American Culture **(4)**
- AN 331 - Racial and Ethnic Relations **(4)**
- AN 374 - Cross-Cultural Communication **(4)**
- AN 381 - Peoples and First Nations of North America **(4)**
- AN 385 - Historical Archaeology **(4)**
- CIN 150 - Introduction to Film **(4)**
- COM 385 - Multicultural Communication **(4)** (Also meets Writing Intensive in Gen Ed)

- DAN 175 - Dance in American Culture **(4)**
- ECN 315 - Economics of Gender and Ethnicity **(3)**
- EED 420 - Managing the Classroom Community for U.S. Diverse Learners **(4)** (Also meets Writing Intensive in Gen Ed)
- ENG 112 - Literature of Ethnic America **(4)**
- ENG 341 - Selected Ethnic Literature **(4)**
- ENG 342 - African American Literature **(4)**
- HRD 367 - Cultural Diversity in the Workplace **(4)**
- HS 302 - Community and Public Health **(4)**
- HST 114 - Introduction to American History Before 1877 **(4)**
- HST 115 - Introduction to American History Since 1877 **(4)**
- HST 292 - History of the African-American People **(4)**
- HST 318 - The Civil Rights Movement in America **(4)**
- HST 319 - History of the American South **(4)**
- HST 322 - Women in Modern America **(4)**
- HST 361 - History of American Families **(4)**
- HST 362 - History of African-American Women **(4)**
- JRN 329 - Digital Storytelling for the Media: Diversity, Identity, and Community **(4)**
- MUS 105 - Foundations of Rock **(4)** (Also meets Arts)
- MUS 107 - Exploring Jazz **(4)** (Also meets Arts)
- MUS 111 - Exploring Caribbean Music **(4)** (Also meets Arts)
- NRS 302 - Health Promotion II **(3)**
- NRS 304 - Human Sexuality **(4)**
- NRS 450 - Nursing Care of Populations with Health Disparities **(4)**
- PS 100 - Introduction to American Politics **(4)**
- PS 312 - The Politics of Race and Ethnicity **(4)** (Also meets Writing Intensive in Gen Ed)
- SOC 100 - Introduction to Sociology **(4)**
- SOC 331 - Racial and Ethnic Relations **(4)**
- THA 306 - Cultural and Historical Development of American Musical Theatre **(4)** (Also meets Writing Intensive in Gen Ed and Arts)
- WGS 200 - Introduction to Women and Gender Studies **(4)**
- WGS 322 - Women in Modern America **(4)**
- WGS 361 - History of American Families **(4)**
- WGS 362 - History of African-American Women **(4)**
- WGS 382 - Sexual Orientation, Gender Identity and Education **(4)** (Also meets Writing Intensive in Gen Ed)
- WGS 385 - Historical Archaeology **(4)**
- WHP 370 - Culture, Ethnicity and Well-being **(4)**
- WRT 330 - Digital Identity and Culture **(4)** (Also meets Writing Intensive in Gen Ed)
- WRT 364 - Writing About Culture: Ethnography **(4)** (Also meets Writing Intensive in Gen Ed)

Writing requirements

Students must satisfy the university General Education requirement in the Writing Foundations area by completing WRT 160 and any required prerequisites (WRT 102 - Basic Writing and/or WRT 150 - Composition I) or through one of the alternatives below. Outside of the Writing Foundations area, two additional writing intensive courses (one in the General Education program and one in the student's major) must also be completed.

Writing foundations

Students may fulfill Writing Foundations requirement in any one of the following four ways (NOTE: Only completion of WRT 160, transfer of course credit, or AP scores or 4 or 5 provide credit towards an OU degree, and towards General Education credit requirements):

1. By Oakland University course work: Complete WRT 160 (and any required prerequisites including WRT 102 and/or WRT 150) with a grade of 2.0 or better in each course. [Note: Some majors require a higher grade. Please consult with your adviser.] See below for an overview of the placement system.

2. By exemption from all or part of the required coursework. Exemption may be granted to students as follows:

    - Students who submit an AP English Language and Composition examination score of 4 or 5 will be exempt from WRT 150 and WRT 160;
    - Students who write and submit a Placement Packet to the Chair of Writing and Rhetoric (see Writing and Rhetoric Placement System portion of the catalog for further information) may be placed in WRT 102 - Basic Writing, WRT 150 - Composition I or WRT 160 - Composition II. No credit is awarded based on the Placement Packet.

3. By transfer: Transfer a college level English composition course that meets the learning outcomes of the Foundations Writing area and is equivalent to WRT 160 (minimum 3 semester credits). Students who have completed such courses with grades of 2.0 or better may submit their transcripts to the Registrar for evaluation.

4. By exemption portfolio: The deadline for submission of an exemption portfolio is the end of the student's fourth semester at Oakland University (excluding summer semester). Students may submit an exemption portfolio to demonstrate that they have developed the skills to meet the learning outcomes of General Education Foundations Writing at the level of WRT 160. The exemption portfolio, if successful, exempts students from WRT 150 and WRT 160; students must complete four (4) additional credits in General Education courses. The exemption portfolio process requires the submission of a collection of the student's original graded papers from college courses for evaluation by the Writing and Rhetoric department faculty in accordance with the following instructions:

Exemption portfolio requirements

1. Identification cover page including certification that the portfolio includes the student's own work (cover sheet and directions available from the Writing and Rhetoric department office, 378 O'Dowd Hall, 248-370-2746 or online at oakland.edu/ wrt/ files/ transferportfolio.doc).

2. Letter (suggested limit: one page) addressed to the Writing and Rhetoric Department Chair describing the student's writing experience and development. The letter should explain the kinds of writing the student has done and how the enclosed work demonstrates mastery of the skills developed in WRT 150 and WRT 160 (see catalog course descriptions).

3. The graded originals of three single-author papers written by the student for college classes (at Oakland University or other accredited institutions). One of these papers must demonstrate that the student can design, conduct and report on a research project using and documenting outside sources in a standard system such as MLA, APA or another clearly identified system without plagiarism. For the research writing, students should include photocopies or printouts of at least three cited pages from the sources used for the paper.

4. The Exemption Portfolio may only be submitted once.

Rhetoric placement system

The main mechanism used to place students in the Department of Writing and Rhetoric at Oakland University is the ACT (or SAT equivalent) English score, as follows:

- ACT English scores of 15 (or SAT equivalent) or below place students in WRT 102 - Basic Writing.
- ACT English scores of 16-27 (or SAT equivalent) place students in WRT 150 - Composition I.
- ACT English scores of 28 (or SAT equivalent) or higher place students in WRT 160 - Composition II.

WRT 150; a score 4 or 5 on the AP English Language and Composition examination will be exempt from WRT 150 and WRT 160.
Students with questions about placement in first year writing should consult the Department of Writing and Rhetoric, 378 O'Dowd Hall, 248-370-2746, prior to the beginning of the semester in which they plan to enroll in first year writing.
Students are responsible for knowing registration deadlines and understanding the implications of schedule changes for their financial aid. The department is not responsible for a student's loss of financial aid due to schedule changes.
Placement by ACT or SAT score or department override does not provide any course credit, regardless of where students are placed.

Additional Undergraduate Degrees and Majors

Under certain conditions, a student may earn either an additional baccalaureate or a single baccalaureate degree with multiple majors.

For students who have not yet received any baccalaureate degree

In order to pursue two or more Oakland University baccalaureates simultaneously, students must:

1. Meet all specified requirements for each degree program.
2. Complete at least 32 credits at Oakland University beyond those required for the degree requiring the most credits. Of these, at least 16 credits must be at the 300 level or above.

These degrees must either have separate designations (for example, Bachelor of Arts and Bachelor of Science) or be earned in separate academic divisions (for example, the College of Arts and Sciences and the School of Engineering and Computer Science). Students who meet the requirements for more than one major program but who do not meet the above conditions may receive a single degree with more than one major recorded on their transcripts.

For students already holding a baccalaureate degree

Students already holding a baccalaureate who wish to earn an additional baccalaureate from Oakland University must:

1. Receive written approval from the college or school concerned (and, where appropriate, from the department) as part of the admission process to the new program.
2. Complete at least 32 additional credits at Oakland University.
3. Meet all specific requirements for the new degree as stipulated by the college, school or other academic unit in which the student is a candidate.
4. Second-degree students from regionally accredited institutions are exempt from Oakland University's general education requirements. This does not apply to students educated outside the U.S.

In the case of students holding a baccalaureate from Oakland University, the new degree must have a separate designation or be awarded by a different academic division, as described above. Alternately, students may enroll as post-

baccalaureate students and have completion of an additional major recorded on the transcript. Such students must meet all requirements for the additional major.

Students already holding a baccalaureate degree may earn teacher certification in elementary education by being admitted to this program at Oakland University with second undergraduate degree status. For a description of the program, see the Department of Teacher Development and Educational Studies, School of Education and Human Services. Students holding baccalaureate degrees with acceptable majors may earn teacher certification in secondary education by being admitted to this program at Oakland University with second degree status. For a description of this program, refer to Secondary Education, School of Education and Human Services.

Petition of Exception

Any student may request a waiver or modification of specific degree requirements outlined in this catalog. The request should be made on a Petition of Exception form available from the appropriate advising office. Petitions requesting modification of the normal requirements of a major should be directed to the chairperson of the major department, while those addressing university-wide undergraduate degree requirements should be returned to the adviser for referral to the appropriate body. The student, the registrar and the student's academic adviser will receive copies of the petition showing the action taken. Petitions of Exception relating to graduation requirements must be filed no later than the second week of the semester of intended graduation.

English Proficiency Policy

International applicants, other visa holders, and permanent residents, whose native language* is not English must provide proof of English proficiency.

Admission

One of the following constitutes proof:

1. TOEFL 550 minimum on paper-based TOEFL
   213 minimum on computer-based TOEFL
   79 minimum on internet-based TOEFL

2. MELAB 77 minimum

3. IELTS 6.5 minimum

4. 24 transferable credits, excluding ESL course work, from a U.S. community college or baccalaureate institution

5. A baccalaureate degree from a regionally accredited U.S. college or university

6. One year of study and a diploma from a U.S. high school

Some programs at Oakland University may require a higher level of proficiency than listed above. Applicants should examine the program description for their field of study for information about additional English proficiency requirements and furnish proof as part of the admission process (oakland.edu/futurestudents).

Admission with ESL course work (excluding those seeking an F-1 visa)

One of the following constitutes proof:

1. TOEFL 520-549 on paper-based TOEFL
   192-212 on computer-based TOEFL
   69-78 on internet-based TOEFL

2. MELAB 73-76
3. IELTS 6

Students must register for ESL courses as part of their course work starting in their first semester of registration. ESL placement is done by the English as a Second Language Center (ESL Center) using the ESL Online Placement Test and other assessment tools. During 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 Center is not negotiable.

Satisfactory completion of the ESL instruction sequence is expected within one year, but ESL coursework is required until minimum proficiency is demonstrated.

Admission to intensive English program

Prospective students who do not have adequate English Proficiency for admission or admission with ESL coursework to the university can be admitted to the Intensive English Program. ESL placement is done by the English as a Second Language Center (ESL Center) using the ESL Online Placement Test and 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 Center is not negotiable.

Upon completion of the Intensive English Program, students may (re)apply for admission to Oakland University; applicants are evaluated using the admission criteria described above.

** A native language is a language that is acquired naturally during childhood and is usually spoken at home, as opposed to a language that is learned later in life, for example as a part of a person's formal education. Students whose native language is not English are encouraged to visit the English as a Second Language Center to discuss any language difficulties they may have while attending Oakland University.*

Transfer Student Information

Transfer practices

When students enter Oakland University, the Academic Records Office evaluates all course work previously completed with a 2.0 or equivalent grade at regionally accredited post-secondary institutions. Transferred courses may be used to satisfy credit and major requirements. Courses necessary to complete degree requirements are offered by the university, and it is anticipated that transfer students who have been admitted will complete subsequent program requirements at Oakland University. Credits are granted for courses taken at other regionally accredited post-secondary institutions in accordance with the transfer policies of this university and with the principles described below. Transfer credit will not be granted for course work completed at another institution during any period when the student was suspended from Oakland University for academic misconduct.

Your GPA does **NOT** transfer from any two-year or four-year college or university. Only credits will transfer. Your GPA is based only on grades earned at Oakland. Some programs may use the grades from other schools in their particular internal admission criteria. *Note: If you do poorly in an Oakland course, you should NOT retake that course somewhere else. If you retake it at any other institution, it will not replace the Oakland grade. That class will affect your GPA permanently on the transcript for Oakland University. Do your retakes here for maximum benefit.*

Transfer admission

Students who wish to transfer to Oakland University should consult with the "Admissions" section under "General Information."

While some students may be admitted based on unofficial documents, this does not remove the obligation to provide official transcripts from all institutions attended. Students who fail to provide official transcripts will be prevented from registering in subsequent semesters until all transcripts have been received.

Students whose prior academic experience includes course work completed outside the United States or Canada must also provide an evaluation of course work from a credentials evaluation service. For additional information, contact Undergraduate Admissions.

Transfer practices for community college students

Oakland University's baccalaureate programs are designed to accommodate students from Michigan community colleges. For most local community colleges, the university has prepared course equivalency guides that indicate courses fulfilling specific Oakland University requirements. Transfer students from community colleges are eligible for the same financial aid programs and other services available to students who enter Oakland University directly from high school.

Transfer practices for students from four-year institutions

Oakland University also accepts students from regionally accredited four-year institutions. Transfer credits are accepted in accordance with the transfer policies of this university and in accordance with the principles described below. Some exceptions to this policy include certain physical education courses and religion courses offered by religiously affiliated post-secondary institutions.

Transfer practices for students from non-regionally accredited institutions

If a prospective student from a non-regionally accredited institution meets OU admissions requirements, they will be admitted to Oakland University. The student's credits from prior non-regionally accredited colleges and universities will be accepted according to the following policy:

Oakland University may accept for transfer those credits for which a grade of 2.0 (on a four-point scale) or higher was earned from institutions with candidacy status from a regional accrediting agency or from other accredited institutions provided that: 1) the institution grants a baccalaureate or associate degree; 2) the institution is a recognized member of the Council for Higher Education Accreditation (CHEA); 3) the courses presented for transfer are shown to have equivalency or are determined to be of traditional academic nature and are acceptable to an Oakland University department; and 4) the institution's courses are taught by faculty with a master's degree or above.

Students who have questions should contact their academic adviser or the Office of the Registrar.

Transfer practices for veterans

Undergraduate students who have served or are serving in the Armed Forces of the United States are granted, upon application, four hours of undesignated free elective credits. Oakland University may accept transfer course work completed in the Armed Forces of the United States and in programs of the United States Armed Forces Institute (USAFI) subject to the following conditions: 1) the content of the courses must be comparable to those for which Oakland University normally grants transfer credit; 2) granting of credit for particular courses must be recommended by the American Council on Education; 3) the credits are acceptable to the appropriate academic department at Oakland University. Students who have questions should contact their academic adviser or the Office of the Registrar.

Transfer credit evaluation

Preliminary evaluations of transfer credits are mailed to students shortly after admission has been approved. Information is updated as equivalency information is received. Students can review their transcripts on SAIL to see the most updated information. Official evaluations are completed during the first semester of attendance. If students have questions concerning courses at other institutions that may meet Oakland University's general education requirements, they should consult their academic adviser or the Academic Records Office, 102 O'Dowd Hall, (248) 370-3452.

Individual academic units may impose particular limitations on transfer credit. Students are advised to read appropriate sections of this catalog to learn the policies of schools in which they may be degree candidates.

Once transfer credits have been granted at Oakland University, a subsequent change of program or major may result in a change in the number of transfer credits accepted.

Study at a foreign university

Oakland University students who enroll directly in foreign universities may, upon their return, request academic credit. Such students must provide documentation of the content and scope of the work completed as well as official evaluations of academic performance. Students who anticipate requesting credit for foreign study should contact the Office of International Education, 160 North Foundation Hall (248) 370-2254, in advance of enrolling in a foreign university.

Transfer principles

Community college transfer credit limit (generally 62 credits)

Students may transfer applicable community college credits at any time during their course of study; however, such credits are limited to no more than one-half the minimum credits required for completion of a specific baccalaureate program. Additional credit may be transferred from regionally accredited four-year institutions. At least 32 credits must be earned at Oakland University.

Upon a student's initial entry to the university (or upon readmission after a lapse of six years or more), courses taken at a two-year institution may be accepted to satisfy requirements even though the rule limiting community college credit transfers to one-half of the total may prevent the acceptance of any credits from such courses. A continuing student at Oakland University who has reached this credit limit may not apply toward the baccalaureate degree any more courses or credits from a two-year institution.

Principles concerning the MTA and MACRAO agreements

Oakland University participates in the Michigan Transfer Agreement (MTA) and Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) Articulation Agreement. Both agreements allow students to satisfy the university's general education requirements at a Michigan community college except as noted below.

After transferring to Oakland University, students must complete a writing intensive course in the major and a capstone course. Students who have satisfied the MTA or MACRAO agreement must also either transfer in a course that is acceptable for the knowledge application (KA) requirement or take an approved KA course at OU after transferring. Under the MTA and MACRAO agreements, students from participating Michigan public community colleges must present for review a transcript bearing the "MTA Satisfied" or "MACRAO Agreement Satisfied" designation.

General education requirements for transfer students

Transfer students may fulfill the general education requirements with courses from their former institution that have been approved for this purpose by Oakland University. In such cases, a 3 semester-hour transfer course may serve as the required course in a particular knowledge area, but students must still present a total of 40 general education credits, and all 10 knowledge areas must be represented for graduation. Transfer students must complete the writing intensive in the major course and the capstone course at Oakland University. However, transfer students are exempt from the writing intensive in general education requirement.

Arts and Sciences exploratory requirements for transfer students

Transfer students pursuing any major in the College of Arts and Sciences should refer to the Policies and Procedures section in the College portion of the catalog for exploratory requirements that must be met in addition to general education requirements.

College-Level Examination Program (CLEP) credits

Transfer students who wish to apply College Level Examination Program (CLEP) credits towards degree work at Oakland University should consult the (CLEP) section of the catalog.

Grading System

1. The basic undergraduate grading system at Oakland University is a 32-point system of numerical grades, with passing grades ranging from 1.0 through 4.0, by tenths, and a no credit grade of 0.0. Non-numerical grades are W, I, P, S, U, R and Z. All courses are graded numerically unless otherwise noted.

2. The first two weeks of a full semester (one week in summer I and II and variable for other parts of term) are a no record period for dropping and adding courses. ("No-record" means that there will be no transcript notation showing enrollment in the course.) See **Important Dates** at oakland.edu/important dates.

3. The meanings of non-numeric grades are as follows:

    a) W (Withdrawn) grade is assigned by the registrar if a student withdraws officially from a course between the end of the no-record period and the ninth week of 14-week courses (the fifth week of seven-week courses, and variable for other parts of term).
    b) The I (Incomplete) grade is temporary and may be given only by student request and instructor consent and 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 completion of course requirements. Student 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. I grades after the one year deadline shall be changed to a grade of 0.0 for undergraduate students. A student who wishes to receive an Incomplete (I) grade in a course must present a Student Request for Incomplete 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. **The rules described above do not apply to degree candidates. Graduating students requesting Incomplete grades in the final semester should contact the degree auditor immediately**.
    c) The P (Progress) grade is temporary and may be given only in a course that, by design, cannot be completed in one semester or session. Prior approval must be obtained from the dean of the appropriate school or college to assign P grades in a particular course. The P grade is only given for course work that is satisfactory in every respect. P grades must be removed within two calendar years from the date of assignment. If this is not done, the P will be changed to a 0.0.
    d) The S (Satisfactory) grade implies a grade of 2.0 or better in certain selected courses in which S/U grading is used exclusively; such courses must be approved by the appropriate committee on instruction. Under circumstances presented below, students may elect as an option to take a numerically graded course on an S/U basis.
    e) The U (Unsatisfactory) grade is given in selected courses approved for S/U grading and implies a non-passing grade of less than 2.0. It also denotes unsatisfactory work in a numerically graded course elected by a student on an S/U basis.
    f) R is a temporary grade assigned by the registrar in the absence of a grade from the instructor.
    g) Z is assigned upon registration for an audited course. The student's declaration of intention to audit and instructor permission are both required, and it is understood that no credit for the course is intended to be earned that term.

4. If none of the above apply, the course is considered to have been successfully completed when the instructor assigns a numerical grade from 1.0 to 4.0. The University Senate has approved publication of the following conversion for external purposes:

    3.6-4.0 - A
    3.0-3.5 - B
    2.0-2.9 - C
    1.0-1.9 - D
    0.0 - no credit

5. All grades appear on student transcripts. However, only numerical grades are used to determine the grade point average, which is truncated at two decimal places.

S/U grading option

Undergraduates who have completed at least 28 credit hours toward graduation may elect to take up to 8 credits of course work at Oakland University on an S/U grading basis, assuming that all prerequisites have been completed and subject to the following conditions:

1. These credits may be counted only as elective credits. They may not be used to satisfy general education requirements (including college or school exploratory requirements), the student's major or minor course requirements or prerequisites, or any courses designated ''No S/U''.

2. Any courses that are designated S/U in the catalog will not count toward the limit of 8 S/U grading option credits per student. Courses where the S/U grading system is used to grade all students in the course can be used to satisfy any applicable academic requirement.

3. The student must elect the S/U option by the end of the late registration period by filing the appropriate form with the Registration Office (100 O'Dowd Hall). Instructors will not be informed on their enrollment lists as to who are the S/U students, if any. They will simply assign numeric grades (0.0 to 4.0) to all enrolled students. For students who have elected the S/U option, the Registrar's Office will then convert numeric grades from 2.0 to 4.0 to an S and numeric grades from 0.0 to 1.9 to a U. An S or a U will appear on the student's official grade report and transcript.

4. Neither the S nor the U grade will be included in the student's grade point average.

5. If a course is repeated, it must be repeated on the same grading basis as the first attempt.

Appeal of grade

Final Course Grade - Formal Grade Appeal Procedure

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.

The Office of the Registrar is authorized to change a final course grade provided the reason for the change is to correct a clerical or procedural error. It is the responsibility of the student who appeals a final course grade to demonstrate clerical error, prejudice or capriciousness in the assignment of the grade; otherwise, the judgment of the instructor is final.

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 program publishes more stringent time limits, the program time limits will take precedence over the time limits in this document. Once the appeal process is initiated, the burden of proof is on the student. Written verification of each step below is critical.

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

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

Informal Conference with Instructor

Step 1 - Student Contacts the Course 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 email 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 work 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 work 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 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:

a) The student believes that the grade received conflicts with the grading policy on the syllabus;

b) The student believes that there is an error in calculation with the grade;

c) The student believes that the grade was given arbitrarily, or with capriciousness or prejudice.

Formal Grade Appeal Review

Step 2 - Chair of the Academic Department

Student responsibility

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, emails, 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.

5. 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 his or her written grade appeal to the next level.

Step 3 - Dean of the School that Offered the Course

Student responsibility

Students who do 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 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.

Academic Records

Transcripts may be requested online through SAIL. Former students who don't know their log-in credentials may complete a transcript request form at oakland.edu/transcripts, in-person at Registrar Services, or by writing to: Transcript Request, Office of the Registrar, Oakland University, Rochester, Michigan 48309-4490. Requests should include the name under which the student attended, the student's Oakland University student number, the date the student last attended, date of degree (if applicable) and the address to which the transcript is to be sent.

Transcripts will not be issued for students who have delinquent indebtedness to the university or who are delinquent in repaying a National Direct Student Loan (NDSL), a Perkins Loan or Nursing Student Loan (NSL).

Campus Security Policies, Crime Statistics and Crime Log

Information regarding public safety at Oakland University is provided in the Annual Security Report (http://oupolice.com/safety/clery/statement/). The Security Report includes crime statistics for the previous three years concerning certain crimes reported to have occurred on campus; in certain off-campus buildings or property owned or controlled by Oakland University; and on public property within, or immediately adjacent to and accessible from, the campus. The Security 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 policy statement, and the OU Alcohol and Other Drug Policy. Additional information regarding emergency action plans is available at http://oupolice.com/safety/procedures/. Pursuant to the Campus Sex Crimes Prevention Act, OU's statement advising the campus community about registered sex offenders is available at http://www.mipsor.state.mi.us/ A crime log for the past 60 days is available at http://oupolice.com/safety/clery/activity-log/ To obtain a paper copy of the Security Report or the crime log, contact the Oakland University Police Department at (248) 370-3331.

Family Educational Rights and Privacy Act

The federal Family Educational Rights and Privacy Act of 1974 pertain to confidential student educational records. This legislation allows students the right to view upon request their own confidential educational records and defines the use of these records by others. The dean of students is the university compliance officer for the Family Educational Rights and Privacy Act.

Students who do not want directory information to appear on the Oakland University web site 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 must notify the Office of the Registrar in writing. Forms for this purpose are available in 100 O'Dowd Hall. Upon receipt of the completed and signed form, directory information will be withheld until the student requests in writing that it be released. Requests for privacy may also be faxed to the Registrar at (248) 370-3890.

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.

A full statement of students' rights is available in the Office of the Dean of Students, 144 Oakland Center, (248) 370-3352. Any questions, grievances, complaints or other related problems may be addressed to the Dean of Students, 144 Oakland Center, Oakland University, Rochester, Michigan 48309-4401, (248) 370-3352 and/or filed with the U.S. Department of Education.

University Approval for Research Activities Involving Human and Animal Subjects, Biosafety, and Radiation Safety

Protection of Human Subjects

Protection of Human Participants in Research

All research projects involving the participation of human subjects, use of identifiable private information, or use of materials of human origin must be submitted for review by the Institutional Review Board (IRB) for the Protection of Human Subjects in Research before the research can be conducted. This requirement includes all research, from low-risk investigations such as surveying people on the street about their favorite television shows to high-risk studies like clinical trials of experimental medical treatments. Applications are submitted online through the online protocol management system, IRBNet at www.IRBNet.org.

All students conducting research must have a faculty adviser/sponsor. The student and faculty adviser/sponsor are jointly responsible for contacting the IRB and for keeping abreast of the approval process as it pertains to their study. For more information about human subjects research and the review process, visit the Oakland University IRB website through Regulatory Compliance at wwwp.oakland.edu/research/compliance. The website includes links to information on mandatory training requirements in human subjects research that is offered by the Collaborative Institutional Training Initiative (CITI) and on the Oakland University Guidelines for Research Involving Human Subjects.

For more information, visit the IRB page under Regulatory Compliance at wwwp.oakland.edu/research/compliance/ or contact Dr. Judette Haddad at (248) 370-4898 or haddad@oakland.edu.

Protection of animal subjects

All research, teaching and testing at Oakland University using vertebrate animals must have the approval of the Institutional Animal Care and Use Committee (IACUC) and be conducted according to federal regulations and university guidelines. Approval is obtained through submission of an Animal Care and Use application. Applications must be submitted online through the Research Application Manager 3.0 (access to RAM 3.0 is found under Regulatory Compliance at wwwp.oakland.edu/research/compliance/). Principal Investigators on IACUC applications must be OU faculty members. Training in working with animals in biomedical research is offered through the Collaborative Institutional Training Initiative (CITI), and animal "Research Hazards Awareness Training" is required through the Office of Environmental Health and Safety. For more information visit Regulatory Compliance at wwwp.oakland.edu/research/compliance/, Institutional Animal Care and Use Committee (IACUC), or contact Janet Schofding at (248) 370-4440 or schofdin@oakland.edu.

Biosafety

All research, teaching and testing at Oakland University involving recombinant DNA tissues of human origin, infectious agents and/or cultured cell lines must be approved by the Institutional Biosafety Committee (IBC) before the work can be conducted. Approval is obtained through submission of biosafety research applications. Applications must be submitted online through the Research Application Manager 3.0. For more information, visit the Biosafety page under Regulatory Compliance at wwwp.oakland.edu/research/compliance/ or contact Dr. Judette Haddad at (248) 370-4898 or haddad@oakland.edu or Domenic Luongo at (248) 370-4314 or luongo@oakland.edu.

Radiation safety

Radioactive material (including machinery producing ionizing radiation) can only be used by authorized Oakland University permit holders or under the supervision of a permit holder. User permits are issued by the Radiation Safety

Committee (RSC) only to full-time OU faculty members or principal investigators. All others must work under the supervision of a full-time faculty member and complete mandatory radiation safety training. For more information, visit wwwp.oakland.edu/research/compliance/ or contact Domenic Luongo, Radiation Safety Officer at (248) 370-4314 or luongo@oakand.edu.

Online application for conducting research

To access the compliance committee applications referred to above, researchers should visit the Regulatory Compliance link on the Research web page at wwwp.oakland.edu/research/compliance/. Human subjects research applications must be submitted through IRBNet at www.IRBNet.org. All required forms and applications are located on the IRBNet website. A step by step instruction guide for using IRBNet is located under IRBNet accessed through Regulatory Compliance at http://wwwp.oakland.edu/research/compliance/. IACUC and IBC Applications are available through the Research Application Manager (RAM) 3.0 which is accessed at http://wwwp.oakland.edu/research/compliance/. Researchers, who are accessing the site for the first time, must create an account. Only OU faculty can submit IACUC, IBC, and RSC applications. Students may be allowed to work on approved projects under the supervision of a faculty mentor.

Other Academic Policies

Honors

Academic honors

At the end of each fall and winter semester, undergraduates who have earned a semester grade point average (GPA) of 3.00 or higher in at least 12 credit hours of numerically graded university work and who have received no 0.0 grades will be recognized for academic achievement. These credits must be earned within the time constraints of the normal semester. Both commendation and academic honors will be recorded on students' academic transcripts.

Dean's list

At the end of each winter semester, students who achieve academic honors (3.60 to 4.00) in at least 12 numerically graded credits for consecutive fall/winter semesters will be placed on the Dean's List. Students who receive an I (incomplete) and/or P (progress) grade in either fall or winter semesters are not eligible for the dean's list. Inclusion on the Dean's List for an academic year will be recorded on students' academic transcripts. Names of Dean's List students, except those who have requested privacy, will be published on an official list to be posted on campus. Students will also receive letters from the appropriate dean.

Departmental and school honors

Departmental or school honors may be awarded to selected students when their degrees are conferred. Criteria for earning these honors are described in the appropriate section of the Undergraduate Catalog. Departmental and school honors are recorded on students' transcripts.

University honors

The three levels of university honors, cum laude, magna cum laude and summa cum laude, may be awarded with the conferral of a student's earned baccalaureate with the following cumulative grade point average: 3.60-3.74, cum laude; 3.75-3.89, magna cum laude; and 3.90-4.00, summa cum laude. The awarding of a degree with university honors will be based only on Oakland University credits, and the student must earn at least 62 credits at Oakland University to be eligible for such honors.

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 judicial system.

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)

Academic Probation and Dismissal

General information

To stay in good academic standing, students must not allow their cumulative grade point averages (GPA) to drop below 2.00. Some schools and departments establish more selective criteria for satisfactory academic performance within their majors. Students should consult the section of the catalog on their major for specific information.

Undergraduates who fail to make satisfactory academic progress toward a degree will be placed on probation in accordance with a university policy that stipulates that students must complete for credit most of the courses for which they register and must do so with a reasonable degree of academic proficiency. Students on probation who fail to meet the minimal standard of progress established by the University Senate will be dismissed from the university.

Undergraduates who are dismissed for unsatisfactory academic progress do not retain the privileges of students in good standing. If dismissed students wish to be readmitted to Oakland University after the compulsory separation period prescribed by the Academic Standing and Honors Committee, they must apply for readmission through the Undergraduate Admissions, 101 North Foundation Hall. (If, in the dismissal notice, a student has been informed that readmission will not be considered, the student may not utilize this procedure.) Questions about Oakland University's probation and dismissal policies should be directed to the Office of the Registrar, 100 O'Dowd Hall, (248) 370-3470.

Principles and practices

The University Senate's Academic Standing and Honors Committee with administrative support from the Office of the Registrar is responsible for the Academic Probation and Dismissal policy. The policy is based on the following principles and practices:

1. The major share of students' educational expense is provided by the state of Michigan, and it is the responsibility of the university to see that these funds are properly used. If students fail to make satisfactory academic progress toward a degree, dismissal action must be taken by the Academic Standing and Honors Committee.

2. Students are encouraged to make responsible decisions concerning their educational progress. Students who are apparently not benefiting sufficiently from the educational opportunities available at the university are advised to consider other alternatives.

3. Some students new to the university (including transfer students) need a period of adjustment; therefore, no students will be dismissed at the end of their first semester/ session at the university. Furthermore, students will not be dismissed without having been placed on probation in the previously enrolled semester/session.

4. Students must have a 2.00 GPA upon graduation. Students with fewer than 81 credits toward graduation and a GPA below 2.00 are normally allowed to continue their studies on probation if it is reasonable to expect that they can sufficiently raise their cumulative GPA. (See *Probation and dismissal policy* below.)

5. Students who receive notice of their dismissal after a term are advised to appeal the dismissal if they believe they have valid reasons to have the dismissal deferred. The Academic Standing and Honors Committee of the Faculty Senate will review appeals submitted within the seven-calendar day deadline and students will be notified regarding the decision of the committee by mail. Students whose appeals are approved by the Committee are required to participate in the Dismissal Option Status Program.

6. Students on probation for two consecutive semesters are not eligible for VA (Veterans') benefits.

Probation and dismissal policy

The following Academic Probation and Dismissal Policy applies to all undergraduate and second degree students.

1. Students with a cumulative GPA of 2.00 or above or without an established cumulative GPA are considered to be in good academic standing. (See item 4 below).

2. Students in good academic standing will be placed on probation at the end of a semester/session when their cumulative GPA is below 2.00. They will be allowed to remain at Oakland University on probationary status for at least one semester/session.

3. At the end of a probationary semester/session, students will be:

    a. returned to good academic standing if their cumulative GPA is 2.00 or higher;
    b. continued on probation if they have fewer than 24 GPA credit hours even if their semester GPA is below 2.00; or
    c. continued on probation if their semester GPA is 2.00 or higher, even if they do not meet the minimum requirements on the chart below; or
    d. dismissed from the university if their semester GPA is below 2.00, they have 24 or more GPA credit hours, and their cumulative GPA is below the minimum GPA according to the chart below. For example, if at the end of a probationary semester/session, a student has attempted 26 credits, has a semester GPA below 2.00, and a cumulative GPA of 1.50, the student will be dismissed from Oakland University.

Oakland University GPA Hours	Minimum Required Cumulative GPA
24-32	1.61
33-48	1.73
49-64	1.85
65-80	1.97
81+	2.00

4. In order to establish a cumulative GPA, a student must receive a numerical grade in at least one course at Oakland University, and in the computation of the cumulative GPA, only those courses at *Oakland University* for which a student has received numerical grades are used. If a course has been repeated, the assigned credits for the course are only counted once in the total number of credits attempted and only the most recent numerical grade received is used. The "honor points" for each course are computed by multiplying the numerical grade received by the number of credits assigned to the course.

The cumulative GPA is determined by dividing the sum of the honor points for all courses receiving numerical grades by the total number of credits attempted in courses receiving numerical grades at Oakland University.

The appeal process

Students dismissed after a probationary term may appeal the dismissal if they feel there are valid reasons to do so. To appeal, students must complete an official Dismissal Appeal Form and submit it to the Academic Standing and Honors Committee within seven calendar days of the issuance of the dismissal notice. The forms are obtained via the Office of Registrar website at oakland.edu/registrar. If the appeal is approved, the student is placed on dismissal option status, and the dismissal is deferred.

Dismissal option status

Dismissal option status is granted to students whose dismissal appeals are approved or to students who are readmitted following a previous dismissal for unsatisfactory academic progress. Dismissal option status offers students the opportunity to continue their education on a term-by-term basis as long as specific requirements are met. All students on dismissal option status must meet a term GPA minimum of 2.00 in each enrolled semester/session until good academic standing is resumed. (Good academic standing is achieved when the cumulative GPA is 2.00 or above.) Failure to earn a minimum term GPA of 2.00 results in reactivation of the dismissal, an action that may not be appealed by the student involved. The Dismissal Option Status program is administered by the Office of the Registrar, 100 O'Dowd Hall, (248) 370-3470.

Academic forgiveness

Academic Forgiveness changes the academic standing of students who are on academic probation or dismissal option status (DOS). To petition for Academic Forgiveness, students must meet the following conditions: absent from the university for six or more years; not in good academic standing prior to their absence; and not permanently dismissed from the university.

Students who meet these requirements may petition the Academic Standing and Honors Committee for Academic Forgiveness. The petition must include a letter from the student stating why they are seeking academic forgiveness and supporting documentation. If the petition is granted, the student is considered exempt from the probation outreach and dismissal option status programs. Petitions must be submitted to the Office of the Registrar, 100 O'Dowd Hall.

Withdrawals

Students dropping all registered credits in a semester must follow the withdrawal procedure. When students withdraw from the university after the second week of classes (first week in the summer semester) and before the end of the official withdrawal period, W grades will be assigned in all uncompleted courses. Official withdrawal from the university is not permitted after the ninth week of 14-week courses (fifth week of seven-week courses). If students stop attending classes but do not follow the withdrawal procedure, they may receive grades of 0.0. Undergraduates who plan to return to the university after a six-year interruption should consult the readmission policy above.

Problem Resolution

Students may encounter problem situations during their course of study at Oakland University that require review by appropriate administrative or academic personnel. The university's problem resolution procedure provides a fact-finding system for resolving problems between students and faculty or staff members when a review of the issues is not available through other established procedures. For some issues (e.g. discrimination, harassment), specific university procedures must be followed. The Dean of Students, located in 144 Oakland Center, is always available to advise students on the alternatives that are available to resolve a concern.

Each student, faculty member, administrator and staff member has an obligation to resolve problems fairly through discussion between the aggrieved student and the specific university person involved with the problem.

Academic Concerns

Each academic unit has developed its own internal procedure for resolving complaints about classroom situations and will provide a copy upon request. Generally, a student must **first contact the instructor.** If the problem is not resolved between the instructor and the student, the student **then contacts the department chair**. The department chair may then hear the facts of the case or refer it to an internal unit committee. If the problem is not resolved at this step, the student may **then contact the dean of the college or school** to continue the problem resolution process. In the case of graduate students, the school or college dean shall consult with the Director of Graduate Study. For cases involving grade disputes and classroom procedures but not involving discrimination, harassment or illegal behavior, the process stops at the dean level.

In any case involving an academic concern, the student should be aware of the responsibilities of the instructor and of the student.

An instructor's responsibilities include, but are not limited to, the following:

1. The instructor should hold classes and examinations when and where officially scheduled.

2. Each instructor should be available in his or her office for student consultation for a reasonable number of hours each week and make these hours known.

3. The instructor should make known at the beginning of each course the objectives and nature of the course, dates of important events (e.g., tests, major assignments), and policies on grading, class attendance, tests, papers and class participation.

4. The instructor should ensure that the content of the course he/she teaches is consistent with the course description in the university catalog.

5. The instructor should adhere to university policies concerning students' rights.

6. The instructor should attend the meetings as required by the procedures of the unit concerning student grievances.

A student's responsibilities include, but are not restricted to, the following:

1. The student must know and adhere to the instructor's policies concerning attendance, tests, papers and class participation.

2. The student must direct academic complaints about a class through the channels explained above.

3. Upon the request of his or her instructor, the student should consult with the instructor at a mutually convenient time.

4. The student should attend the meetings as required by the unit grievance procedures.

In the above process, a student may discuss the problem with the instructor. However, it is beneficial for the student to write out the concerns and state the suggested resolution to the problem. The complaint should be supported with facts. If the problem is not resolved at the instructor level and advances to the department chair, students must document their concerns to assist the chair or the unit committee to understand the problem.

Non-Academic Concerns

From time to time, students may experience concerns with their employment situation or service on campus. In these situations, the student may wish to contact the dean of students to discuss problem resolution steps. Generally, the procedure will involve presenting the facts to the immediate supervisor of the specific university employee involved. The student should clearly state the nature and basis of the alleged offense, the name of the person(s) who committed the offense, the specifics of the incident(s) involved and the names of any known witnesses. In handling such complaints,

discretion will be exercised but no guarantee of confidentiality may be given, since an investigation will necessarily involve discussions with other parties.

The immediate supervisor of the person against whom the complaint was lodged must respond to the complainant within 30 days after the complaint was filed (unless an extension for additional review or information gathering is authorized). If the complainant is dissatisfied a written appeal may be made to the next level of supervision. For nonacademic complaints, appeals stop at the vice presidential level.

Concerns about Illegal Discrimination or Harassment

University policy prohibits illegal discrimination. Discriminatory conduct or discriminatory harassment is behavior, including but not limited to sexual advances or requests for sexual favors, and any written behavior, including pictorial illustrations, graffiti or written material, that stigmatizes or victimizes an individual on the basis of race, sex, gender identity, gender expression, sexual orientation, age, height, weight, disability, color, religion, creed, national origin or ancestry, marital status, familial status, veteran status, or other characteristics protected by federal and state law.

In cases involving alleged illegal discrimination or harassment by a university employee, the student should contact the Office of Inclusion and Intercultural Initiatives, 203 Wilson Hall, (248) 370-3496.

Time Limits for All Types of Concerns

In the interest of fairness to all parties, a complaint should be filed as soon as possible to assist in obtaining the facts related to the complaint. For this reason, a complaint generally will not be processed unless it is filed no later than sixty (60) days after the student became aware or should have become aware of the incident leading to the complaint. However, the University may waive the 60-day rule based upon the facts and circumstances of the complaint and after giving due consideration to the protection of the rights of both the complainant and the individual accused.

Readmission

Readmission is required for all students in the following categories:

Any student whose attendance has been interrupted for a period of six or more years and/or;
Any student who has been academically dismissed from the university for insufficient academic progress at the end of their previously enrolled semester/session. Students applying for readmission may submit a Readmission Application prior to the start of registration.

Applications can be accessed from the Undergraduate Admissions website (oakland.edu/readmission) and must be sent to: Oakland University, Undergraduate Admissions, 101 North Foundation Hall, Rochester, MI 48309-4401. Students should contact the Office of Undergraduate Admissions, 101 North Foundation Hall, (248) 370-3360, by the deadlines listed below prior to the start of the semester in which the student expects to enroll:

Fall semester- July 1
Winter semester – November 1
Summer semester – March 1

If readmitted students fail to enroll for the semester or session for which their readmission is granted, that readmission is considered void. If students wish to enroll for the semester or session immediately following the term for which readmission was granted, they may do so with a written request to update their readmission application addressed to Undergraduate Admissions. However, if such students wish to enroll for a term later than one semester or session following the term for which they were readmitted, they must complete another readmission application and submit it by the deadlines. Readmission to the university is not automatic for students dismissed because of poor academic performance. The number of times a student will be readmitted is limited. An application for a first readmission by a student who has been dismissed for insufficient academic progress is reviewed by the university's Readmission Committee. Decisions about readmission are made on a case-by-case basis involving review of the student's file. A student dismissed for academic performance who is readmitted but fails to progress academically, resulting in a second academic dismissal, may not apply for readmission to the university for a period of three years. The Academic Standing and Honors Committee will review the

Academic records of students applying for readmission a second time. If a student is dismissed for academic reasons a third time, the student may not be readmitted to Oakland University.

University Libraries

Knowledge UNBOUND

Dean: *Stephen Weiter*

Associate Dean: *Shawn V. Lombardo*

Assistant Dean: *Linda Kreger*

Director, Oakland University William Beaumont School of Medicine Library: *Nancy Bulgarelli*

Professor Emeriti: *William Cramer, Indra M. David, Suzanne O. Frankie, George L. Gardiner, Robert G. Gaylor, Linda L. Hildebrand, Janet A. Krompart, Frank Lepkowski, Mildred H. Merz, Richard L. Pettengill, Ann M. Pogany, Daniel F. Ring*

Professor: Kristine S. Condic

Associate professors: *Dominique Daniel, Mariela Hristova, Elizabeth Kraemer, Misa Mi, Anne Switzer*

Assistant professors: *Keith Engwall, Meghan Finch, Katie Greer, Amanda N. Hess, Shawn McCann, Julia Rodriguez, Emily Spunaugle, Stephanie Swanberg*

Managers: *Rob Burns, Library Technology Services; Rachelle La Porte Fiori; Circulation Services and Resource Sharing*

Library Facilities

Located in the center of campus, the Kresge Library houses the main library and the Medical Library. The library provides seating for individual study, rooms for group work, meeting rooms, audiovisual rooms, and a café that features a full range of coffee drinks, teas and snacks for on-the-go students. The third floor of the building is designated for quiet study, while the newly-renovated fourth floor provides powered tables and casual seating spaces to facilitate collaborative study.

The Learning Commons on the second floor offers a combination of PC and Mac desktop workstations, areas for wireless laptop use, breakout rooms with presentation computers and equipment, and areas with modular furniture to facilitate a flexible learning environment for research, sharing, and knowledge creation by students. Adaptive equipment for students with disabilities is also available. Laptop computers are available for checkout to students at the Circulation Desk.

In addition to its own operations and resources, the library hosts the Writing Center, the OU Help Desk, and e-Learning and Instructional Support.

Library Collections

The Libraries' collections include more than 50,000 e-books, 75,000 journal titles in electronic and print formats, 800,000 print volumes, musical scores, multimedia resources, and more. The Libraries subscribe to more than 130 online databases and *Library OneSearch*, a discovery tool that enables users to search the Libraries' print and electronic holdings simultaneously with a single search. Last year patrons conducted 1.4 million searches in library databases and retrieved more than a million full-text articles from our electronic collections. The Libraries' web site serves as a gateway to research databases, electronic reference sources, full-text articles and e-books, as well as to subject guides and online tutorials to help users navigate the research tools of a wide range of disciplines.

Special collections include federal and state government documents, the *Hicks Collection of Early Books by and about women, the Springer Collection of Lincolniana, the Gaylor Collection of GLBT Literature, the China Gift Collection, and the Bingham Collection of Historical Children's Literature. In addition, the Libraries maintain a collection of all dissertations written at OU.*

The University Archives, housed on the first floor, is a repository of materials relating to the history of Oakland University. Digitized archival collections include photographs, newsletters, older student newspapers, Board of Trustees'

minutes, and other important documents. These online materials, as well as a growing faculty research collection, are available through the OUR@Oakland institutional repository, which is organized and maintained by library faculty and staff.

Library Services

Web site: library.oakland.edu
Phone: (248) 370-2471
Send an e-mail message to a librarian: ref@oakland.edu

Research Help

Librarians provide research assistance in-person at the Research Help Desk, by telephone, by e-mail, and via instant messaging. Librarians also offer individualized and customized research consultation sessions by appointment. These in-depth, one-to-one sessions are designed to help students identify and use resources pertinent to their research.

Library instruction

As information literacy specialists, librarians provide extensive instruction for students on using information resources, constructing effective research strategies, and evaluating information. These instruction sessions are a core component of every WRT 160 course. Librarians also provide customized, course-related sessions in the disciplines, as well as workshops on special topics.

Circulation and course reserve services

At the Circulation Desk, undergraduate students may borrow books for a period of three weeks, with unlimited renewals unless another borrower has requested the materials. Students may also borrow materials that have been placed on course reserve by their professors. An increasing number of reserve items are made available online.

Interlibrary loan service

Students may request books and articles not owned by the Libraries through our interlibrary loan service and through MelCat, a statewide resource sharing system. Requests can be made through forms available on the Libraries' website.

LIB 250 - Introduction to Library Research and Technology in the Information Age (4)
With the ever-increasing availability of online and digital resources, it is vital that students be able to find and use information effectively. In this course students will learn about the organization of information, search skills, the research process, discipline-specific sources, evaluation of information, information ethics and other sources of debate. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for knowledge applications and writing intensive: completion of the university writing foundation requirement. (Formerly LIB 250)
Prerequisite(s): WRT 160.

Oakland University in Macomb County

Oakland University strives to be widely recognized as Macomb County's premiere university for baccalaureate and graduate programs. With the establishment of its presence in Macomb County more than two decades ago, Oakland University is committed to expanding access to higher education in Macomb County. Home to three conveniently located OU educational sites in Mount Clemens and Clinton Township, Oakland University offers Macomb County residents a variety of educational options and greater flexibility in completing instruction for their bachelor's or master's degree.

Each semester, Oakland University offers a wide variety of courses across its Macomb County locations, in both day and evening formats, that lead to fulfillment of general education and major requirements, as well as a number of full undergraduate and graduate degree programs. By offering these enrollment options, Oakland University serves students in Macomb County by:

- Providing a gateway to OU's main campus in Rochester, since students can complete select course requirements, close to home and work, for several OU bachelor degrees.
- Facilitating degree completion for transfer students coming from a community college or another university and wishing to complete requirements for an OU bachelor's degree in Macomb County or at OU's main campus in Rochester.
- Serving working adult students who have earned some college credits and wish to return for degree completion of their OU undergraduate or graduate degree in Macomb County or at OU's main campus in Rochester.

Macomb County Educational Sites

- Anton/Frankel Center (AFC), 20 S. Main St., Mount Clemens, MI 48043, (248) 370-3910, fax (248) 370-3925.
- Macomb University Center (MUC), 44575 Garfield Road, Clinton Township, MI 48038, (586) 263-6242, fax (586) 263-6261.
- Macomb Intermediate School District (MISD), 44001 Garfield Road, Clinton Township, MI 48038 (586) 226-8462, fax (586) 226-8463.

Programs

Undergraduate degree programs

- Bachelor of Arts in Communication
- Bachelor of Arts in Criminal Justice
- Bachelor of Arts in Journalism
- Bachelor of Arts in Psychology
- Bachelor of Integrative Studies
- Bachelor of Science in Computer Science
- Bachelor of Science in Computer Engineering
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Elementary Education
- Bachelor of Science in General Management
- Bachelor of Science in Human Resource Development
- Bachelor of Science in Information Technology
- Bachelor of Science in Mechanical Engineering
- Bachelor of Science in Marketing
- Bachelor of Social Work

Graduate degree programs

- Education Specialist Degree in Educational Leadership
- Master of Arts in Counseling
- Master of Arts in Communication
- Master of Arts in Teaching, Reading and Language Arts
- Master of Arts in Teaching with Elementary Certification (K-8)
- Master of Education in Early Childhood Education with Early Childhood Endorsement
- Master of Education in Special Education with Autism Spectrum Disorder Endorsement
- Master of Public Administration (choose general, court administration or criminal justice leadership concentration)

Certificate and endorsement programs

- Autism Spectrum Disorder (ASD) Endorsement
- Career Development Facilitator Training
- Early Childhood Education Endorsement
- School Counseling, Advanced Specialization

Academic Advising in Macomb County

Academic Advising is available by appointment; students should contact OU's Macomb County office for further information.

For additional information about the programs or services available at any of the Macomb County sites, please visit oakland.edu/macomb or e-mail the staff at oumacomb@oakland.edu.

Professional and Continuing Education

Oakland University offers educational opportunities for those looking to advance their careers, achieve certifications, re-certify, or enrich their lives. We offer non-credit courses in a variety of formats to suit any lifestyle. In a classroom setting or virtually anywhere through online classes, students can expand their knowledge and skills or advance their career to new heights. Courses, facilitated by Oakland University faculty and business leaders, combine research expertise and real world experience to help you gain the knowledge you need to enrich and expand your credentials. Wherever you are in your personal or career path, we have courses to meet your needs.

PACE staff is also available to assist organizations and businesses in developing customized programs for their workforce. Regardless of the educational need, PACE is here to help! Course offerings are available for viewing at oakland.edu/PACE.

Contact Information:
PACE
Pawley Hall
Oakland University
Rochester, MI 48309
OUPACE@oakland.edu

248-370-3177

Other Academic Programs

Extension courses are also offered to businesses, government agencies, private agencies, and civic groups. The courses provide special instruction to the employees or members of these organizations. Most courses can be taught at the organization's facility. Course content is structured to address specific needs or goals identified by the organization.

Extension Course Cancellation

Oakland University reserves the right to cancel any extension course that does not have sufficient enrollment. All tuition applicable to the canceled section will be automatically refunded when a course is canceled.

Diploma, Certificate and Re-Licensure Programs

Diploma programs, a series of courses related to individual objectives, are offered as preparation for becoming a paralegal assistant and to sit for the CFP® (Certified Financial Planner) examination.

The Personal Financial Planning Certificate Program, offered by the Center for Executive and Continuing Education in the School of Business Administration, is designed to prepare individuals who are now or might become involved in advising clients about financial planning, to prepare them to sit for the CFP® license examination. The center also offers a certificate program in Production and Manufacturing Management for individuals who wish to gain the knowledge and improve their skills for the constantly changing manufacturing environment.

Qualifying hours for professional re-licensure are offered both periodically and throughout the year for counselors, educators, Certified Public Accountants, Certified Financial Planners, Certified Internal Auditors, Certified Management Accountants and licensed insurance professionals.

Educational Test Preparation Workshops

Test preparation workshops for the SAT, ACT, Graduate Record Exam (GRE), Graduate Management Admission Test (GMAT), and Law School Admission Test (LSAT) are offered year-round. The SAT and ACT workshops are designed for college-bound high school students or individuals who decide to enter a college program after an interruption of the traditional high-school-to-college progression. The GRE and GMAT workshops are designed for those seeking admission to graduate school, and the LSAT for those applying for entry into law school. Information on these workshops is available through the College of Arts and Sciences.

Conferences and Seminars

Conferences on topical subjects are offered throughout the year. Included among the offerings are: conference, seminar and corporate training programs of the Center for Executive and Continuing Education.

Air Force Reserve Officer Training Corps (AFROTC)

Oakland University participates in a "Crosstown" agreement with the Southeast Michigan Air Force ROTC unit housed at the University of Michigan in Ann Arbor. Under this agreement, eligible Oakland University students may enroll at Oakland and take the required General Military and Professional Officer training courses in Ann Arbor. The program leads to appointment as a commissioned officer in the United States Air Force for those who meet requirements and may include scholarship aid and other financial support. Some Aerospace Science (AERO) courses offered at the University of Michigan may be used to fulfill other requirements. One or more of the training courses may be accepted as an elective course for a business major in general management. For possible use of AERO courses as electives, please contact the Office of Undergraduate Business Programs, (248) 370-3285 or the Office of the Registrar. For further information about the AFROTC program contact the Air Force ROTC detachment 390 at (734) 647-4093 or e-mail afrotc@umich.edu or you can access the AFROTC Det 390 web site at umich.edu/~det390.

Athletics

Oakland University made the transition to NCAA Division I in 1997-98 and supports 18 intercollegiate sports. Over the course of 51 years, the Golden Grizzlies have captured 10 national championships and produced 159 individual national champions. Oakland joined the Horizon League on July 1, 2013, winning a pair of swimming and diving titles and led the league in All-Academic selections. The Golden Grizzlies captured the McCafferty Trophy in 2014-15, awarded to the Horizon League's all-sports champion, in just Oakland's second season in the league. The Black and Gold finished a program-best T18 in the Learfield Directors Cup Standings in Oakland's NCAA Classification of D1-AAA (non-football). The Golden Grizzlies have led the Horizon League in Academic Honor Roll selections in every semester.

Dating back to The Summit League years (2000-13), the Golden Grizzlies have produced the most Academic Honor Roll selections in nine consecutive seasons. The men's basketball team made NCAA tournament appearances in 2005, '10 and '11, while the women's basketball program competed in the 'Big Dance' in 2002 and '06. Tricia Grant became the first-ever Horizon League diver to advance to the NCAA Swimming and Diving Championships in 2014 after earning league diver of the year accolades. The men's swimming and diving program is a perfect 36-0 at conference championships, while the women's program has won 22 consecutive league titles. The women's soccer program upset No. 16 Ohio State in Columbus at the 2012 NCAA tournament and the Golden Grizzlies have made eight NCAA appearances in 15 seasons of eligibility. Oakland had its first-ever NBA draft pick in 2011 when Keith Benson was taken 48th overall by the Atlanta Hawks. Former golfer standout Brian Stuard (2005 graduate) enters his fifth season on the PGA Tour, earning over $5 million dollars in his career. Finally, 2014 graduate Travis Bader became the NCAA's all-time record holder with 504 3-pointers made, becoming the first-ever NCAA record holder at the Division I level.

College of Arts and Sciences

217 VARNER HALL (248) 370-2140
Fax: (248) 370-4280
College Website: oakland.edu/cas

Dean: *Kevin J. Corcoran, Ph.D.*

Office of the Dean:
Anne L. Hitt, associate dean; Robert B. Stewart, Jr., associate dean; Sandra K. Dykstra, assistant dean; Laura Culbert, assistant dean; Janice M. Baker, financial analyst/business manager; Beth Dawson, financial analyst; Gerard Jozwiak, director of computing resources; Kelly A. Conway, director of development; Lori J. Posey, donor relations and stewardship coordinator; Shannon A. Esselink, director of Advising Services; Ann M. Selva, assistant director of Advising Services; Nancy Gursin, academic adviser; Anne Jackson, senior academic adviser; Jim Bilinski, academic adviser, Kacie Cadotte, academic adviser, Kelly Gianetto, academic adviser; Matthew Prentice, academic adviser; Melodi A. Schuchmann, academic adviser.

Ambassadors

The College of Arts and Sciences Ambassadors are a volunteer body comprised of community leaders committed to the vision and mission of the college. Ambassadors serve as advocates, taking an active part in furthering the college's objectives.

Members of the College of Arts and Sciences Ambassadors include:
Joel Dean, chief operating officer, Casemer Tool & Machine, Inc.
Mary Fisher, D.D.S.
Lisa Flynn, M.D. chief medical information officer, Detroit Medical Center
Robert Gebbie, partner, Natural Bridge Technologies
Grant Gerhart
Michael Glass, D.D.S., Endodontic Associates PC
William Goldenberg, first vice president, Raymond James and Associates, Inc.
Gail Haines, state representative, Michigan State House of Representatives, 43rd District
William Horton, president and partner, Giarmarco, Mullins & Horton, P.C.
A. Randolph Judd, attorney
Thomas E. Kimble, owner, 21st Century Consulting LLC
Adam Kochenderfer, attorney, Wolfson Bolton, PLLC
Sue Dankha Mancuso
Jonathan Parks, director, GEAR UP, Wayne State University
Vito Pianello, vice president commercial banker, First Merit Bank
Richard Rassel, chairman, Butzel Long
Robert Schostak, president, Schostak Brothers & Company
George Seifert, president, George & Betty Seifert Foundation Inc.
Lois Shaevsky
Tobye Stein (retired), CO-OP Financial Services
John Stoll, global autos editor, Wall Street Journal, Detroit Bureau
Kevin Wilson, teacher, Walled Lake Western High School

Role and Mission of the College

The intellectual and creative capacity of the College of Arts and Sciences provides students with multiple opportunities to develop distinctive individualized academic and cultural experiences, which serve as a foundation for civic engagement, creative problem solving, entrepreneurial endeavors, and professional goals.

The college is home to a wide range of disciplines representing the humanities, social sciences, natural sciences, and fine and performing arts, as well as several interdisciplinary programs. Students share experiences that enhance written and oral communication, problem-solving and analytic skills. The college offers many opportunities to develop these skills beyond the classroom through internships, field placements and research experiences. Students learn to think creatively about the problems they confront and be adaptive in a rapidly changing world. The college faculty inspires students to become engaged citizens and professionals and individuals with an inclination toward lifelong learning.

Programs Offered

The college offers instruction leading to the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Social Work, Master of Arts, Master of Arts in Liberal Studies, Master of Music, Master of Public Administration, Master of Science and Doctor of Philosophy degrees. In conjunction with the School of Education and Human Services, it offers instruction leading to secondary teaching certification in biology, chemistry, dance, economics, English, teaching English as a second language, history, mathematics, modern languages and literatures, music, physics, political science, sociology and studio art, and secondary teaching endorsements in integrated science and social studies.

Admission

Departmental rather than college-wide regulations govern admission to the college's majors. Students should maintain close contact with faculty advisers in the department in which they wish to major and with the college advising office.

Academic Advising

In order to help students develop and achieve their academic goals, the college offers an advising program staffed by faculty advisers in each academic department and by professional advisers in the College of Arts and Sciences Advising Office, 221 Varner Hall, (248) 370-4567. All students are expected to meet with an adviser on a regular basis. Students who need assistance with course selection, registration, major and career choice, or who have questions about college and degree requirements, academic standing, transfer credit and petitions of exception should meet with an adviser in the College of Arts and Sciences Advising Office.

Undecided students interested in programs offered by the college should meet with an adviser in the College of Arts and Sciences Advising Office each semester until they declare a major. Once a major in the college has been declared, students should meet initially with a departmental adviser to establish a program plan and periodically thereafter to ensure that they are completing major requirements. Frequent adviser contact will help ensure that the student has current academic information and is making good progress toward a degree.

Seniors are urged to meet with a professional adviser for a graduation check prior to final registration. It is the responsibility of each student to know and meet graduation requirements and to make every effort to obtain adequate academic advising.

Requirements for the Bachelor of Arts and Bachelor of Science degrees

General requirements

Each student must:

1. Complete at least 124 credits. Some degrees may require a greater number of total credits.
2. Complete the requirements for a major offered by the College of Arts and Sciences with a cumulative grade point average of at least 2.00.
3. Complete at least 32 of these credits at Oakland University, of which at least 16 credits must be in the student's elected major.
4. Complete at least 32 credits in courses at the 300 level or above.
5. Complete the last eight credits at Oakland University.

6. Earn a cumulative grade point average of at least 2.00 in courses taken at Oakland University and in the major(s), any elective minor(s), and any elective concentration(s).
7. Complete the university's general education requirements (see *Undergraduate degree requirements*).
8. Complete the college exploratory requirement *described below*.

College exploratory requirement

The College of Arts and Sciences exploratory requirement provides students with a depth and breadth in the multi- and interdisciplinary knowledge needed in today's complex world. Through concentrated intellectual engagement in disciplines outside a student's major, this requirement offers expanded horizons and progressive challenges to more fully develop the scope of a student's understanding, abilities and accomplishments.

In addition to satisfying the university-wide general education requirements, all students with majors in the College or Arts and Sciences* are required to complete at least three courses outside of their major rubric for a minimum of 12 credits. A student may select these courses from either of the following:

1. A single rubric of their choosing (e.g., ENG) within the College of Arts and Sciences.**
2. A pre-defined thematic set of courses identified on the College of Arts and Sciences website at oakland.edu/exploratory.

Notes

1. Courses taken to fulfill the College exploratory requirement must be at the 100 level or above and must be in a subject taught within the College of Arts and Sciences, with the exception of non-College courses that are part of pre-approved thematic sets.
2. Pre- or corequisite courses (courses with a rubric other than the major, e.g., CHM for biology majors) required for any major may be applied toward the exploratory requirement.
3. Courses used to satisfy the general education requirements for knowledge applications, U.S. diversity, writing intensive, and capstone may be applied to the exploratory requirement as long as they are outside of the major rubric. Courses used to satisfy a student's general education requirements in all other categories will not apply.
4. Students transferring courses from another institution may apply appropriate credits toward the exploratory requirement and must meet the 12-credit minimum requirement.
5. Students who have completed the MACRAO agreement at a community college must complete the exploratory requirement at Oakland University or another four-year institution.
6. Completion of a double major or degree or completion of a College of Arts and Sciences minor or concentration satisfies the exploratory requirement.
7. Students entering Oakland University under an earlier catalog may choose to follow the exploratory requirement in place of the previous distribution requirement.

**K-12 Music Education, K-12 Studio Art Education, B.M., and B.F.A. majors, Honors College, Liberal Studies, and second degree students are exempt from the exploratory requirement.*
***For the purposes of the exploratory requirement, Department of Mathematics and Statistics rubrics MTH, APM, MOR, and STA are regarded as a single rubric. WRT, 102, 104 and 150 may not be used toward the exploratory requirement.*

As a general rule, no more than eight credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators.

Departmental Honors

Requirements for awarding departmental honors to students who demonstrate outstanding academic achievement are determined by each department. Please consult the chief academic adviser in each department for the specific details of these requirements. Normally, not more than one-third of a department's graduates may be awarded departmental honors.

Major Programs

Students must fulfill all requirements of their elected majors as described in the departmental entries. A minimum cumulative grade point average of 2.00 in the major is required for graduation**. *As a general rule, no more than eight credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators***.

Majors offered by the College of Arts and Sciences are listed below. There are no college-wide regulations governing admission to major standing or retention in the majors. Each department controls its own procedures in these areas. Therefore, students are urged to maintain close contact with faculty advisers in the department in which they wish to major and with the College of Arts and Sciences Advising Office. The majors are:

Acting (B.F.A.)
Actuarial Science (B.S.)
Anthropology (B.A.)
Applied Statistics (B.S.)
Art History (B.A.)
Biology (B.A. or B.S.)
Biochemistry (B.S.)
Bioengineering
Biomedical Sciences (B.S.)
Chemistry (B.A. or B.S.)
Chinese Studies (B.A.)
Cinema Studies (B.A.)
Communication (B.A.)
Creative Writing (B.A.)
Criminal Justice (B.A.)
Dance (B.A. or B.F.A.)
Economics (B.A.)
English (B.A.)
Environmental Science (B.S.)
Engineering Chemistry (B.S.)
Engineering Physics (B.S.)
French Language and Literatures (B.A.)
German Language and Literatures (B.A.)
Graphic Design (B.A.)
History (B.A.)
International Relations (B.A.)
Japanese Language and Literatures (B.A.)
Japanese Studies (B.A.)
Journalism (B.A.)
Latin American Language and Civilization (B.A.)
Latin American Studies (B.A.)
Liberal Studies (B.A.)
Linguistics (B.A.)
Mathematics (B.A. or B.S.)
Medical Physics (B.S.)
Music (B.A. or B.M.)
Musical Theatre (B.F.A.)
Philosophy
Physics (B.A. or B.S.)
Political Science (B.A.)
Psychology (B.A.)
Public Administration (B.S.)
Social Work (B.S.W.)
Sociology (B.A.)
Spanish Language and Literatures
Studio Art (B.A.)
Theatre (B.A.)
Theatre Design and Technology (B.F.A.)
Women and Gender Studies (B.A.)
Writing and Rhetoric (B.A.)

Secondary Teacher Education Program (STEP)

In cooperation with the School of Education and Human Services, the College of Arts and Sciences offers an extended program of study leading to secondary teaching certification. Generally, eligibility for admission to the STEP requires a minimum GPA of 3.00 in both the major and minor, and an overall GPA of at least 2.80. No single major or minor course grade may be below 2.0, and a minimum grade of 3.0 is required in WRT 160 - Composition II or its equivalent. Second undergraduate degree candidates completing a major and/or minor for STEP may be required to complete course work at Oakland University beyond the stated minimums. Majors in music education and studio art education, and modern language education (French, German, Japanese, and Spanish) complete the requirements for K-12 certification. For more information on program and admission requirements and procedures, please consult with advisers in the appropriate

College of Arts and Sciences department and the School of Education and Human Services. The majors in this program include:

Biological Sciences (B.A. or B.S.)	Mathematics (B.A. or B.S.)
Chemistry (B.A. or B.S.)	Music Education, Choral/General (B.M.)
English (B.A.)	Music Education, Instrumental/General (B.M.)
French (B.A.) K-12	Physics (B.A. or B.S.)
German (B.A.) K-12	Spanish (B.A.) K-12
History (B.A.)	Studio Art Education (B.A.) K-12
Japanese (B.A.) K-12	Teaching English as a Second Language (TESL)

International Studies Programs

The International Studies Program offers majors and minors in international studies; it also sponsors study abroad programs for students and the general public. For information about majors and study abroad programs see the International Studies Program section of the catalog and consult with the program director, Paul J. Kubicek at (248) 370-2363.

Multiple Majors

Students who elect to major in more than one area in the College of Arts and Sciences must satisfy the specific requirements of each of the majors they choose. Such students are single degree candidates with more than one major and must satisfy the general and specific requirements applicable to the awarding of one degree, either a Bachelor of Arts or a Bachelor of Science. As a general rule, no more than eight credits of course work used to satisfy one major, minor or concentration may be applied toward another, *but exceptions to this rule may be allowed with the written approval of the program coordinators*. Forms for students requesting an additional major are available in the advising office and should be completed by students wishing to graduate with more than one major. Under certain conditions, a student may earn more than one degree. Such students are double-degree candidates. For information on the restrictions that apply to the awarding of more than one degree and the requirements that double-degree candidates must satisfy, please see Additional Undergraduate Degrees and Majors in the Academic Policies and Procedures section of this catalog. Completion of a second major satisfies the College of Arts and Sciences exploratory requirement.

Independent Majors

Students interested in academic areas in which no suitable major program is available may petition the college Committee on Instruction for an individually tailored independent major in place of one of the departmental majors listed above. An independent major also may be taken as part of a double-major program in conjunction with a regular departmental major, provided that no course counted toward completion of the departmental major is also counted toward completion of the independent major. Students will be admitted to the independent major only after completing 32 credits but before completing 90 credits. For the specific requirements of an independent major, consult the College of Arts and Sciences Advising Office, 221 Varner Hall, (248) 370-4567.

Minors for Liberal Arts Degree Programs

Minors are not required by the College of Arts and Sciences for baccalaureate programs, but the college offers a number of liberal arts minors that students may pursue in addition to the required major. A cumulative grade point average of 2.00 is required in courses included in the minor. At least 8 of the credits offered for each minor must be taken at Oakland University. *As a general rule, no more than eight credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators*. The catalog chosen for the student's major will also be used to determine degree requirements for any minor the student may be pursuing unless a written plan of study has been approved by the department or school offering that program. Forms for planning and approval of minors are available from departments or from the College of Arts and Sciences Advising Office (221 Varner Hall). If a department or program does not require an approved plan of study, a student is still entitled to negotiate in writing a minor or concentration with the program coordinator.

The college offers the following minors*:

advertising *(under Communication and Journalism)*
Anthropology
applied mathematics (*for students in SECS*)
applied statistics
art history
Biology
broadcasting (*under Communication and Journalism*)
Chemistry
child welfare (*for social work majors only*)
Chinese language
Chinese language and civilization
Christianity studies
cinema studies
Communication
creative writing
criminal justice
Dance
Economics
English
environmental science
French language
French language and literature
German language
German language and literature
German studies
graphic design
History
interactive and social media
international relations
international studies
Islamic studies
Japanese language
Japanese language and civilization
jazz studies
journalism
Judaic studies
LGBTQ studies
linguistics
mathematics
multimedia
music
philosophy
physics
political science
psychology
public administration and public policy
public relations
relational communication
sociology
Spanish language
Spanish language and literature
studio art
teaching English as a second language (TESL)
theatre
women and gender studies
world music
writing and rhetoric

Completion of a College of Arts and Sciences minor satisfies the College of Arts and Sciences exploratory requirement.

Minors from other academic units are also accepted by the college for students graduating with a major from the College of Arts and Sciences. Requirements for these minors are described under departmental entries as indicated. These minors include: in the School of Business Administration, accounting, finance, business, human resources management, international management, management information systems, marketing, production and operations management and quantitative methods; in the School of Education and Human Services, human resource development, and labor and employment studies; in the School of Engineering and Computer Science, computing and computer science; and in the School of Health Sciences, exercise science and occupational safety and health.

**These minors do not count toward an elementary or a secondary teaching credential. For further information on minors without section references, see the departmental chapter of the same name.*

Secondary Teaching Minors

Completion of a secondary teaching minor is required as part of the secondary teacher education program (STEP) in preparation for teacher certification by the Michigan Department of Education. Only programs entitled "secondary teaching minors" are acceptable by the department.

Generally, a cumulative grade point average of 3.00 is required in courses included in the minor, with no single course grade below 2.0. Second undergraduate degree candidates completing a major and/or minor for STEP may be required to complete course work at Oakland University beyond the stated minimums. The College of Arts and Sciences offers the following secondary teaching minors or endorsements, which are described in detail under departmental entries in this catalog: *biology, chemistry, dance, economics, English, teaching English as a second language (TESL), history, integrated science, mathematics, modern languages (Chinese, French, German, Japanese, Spanish), physics, political science, social studies, and sociology. As a general rule, no more than 8 credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators*.

Completion of a College of Arts and Sciences secondary teaching minor satisfies the College of Arts and Sciences exploratory requirement.

Concentrations

The College of Arts and Sciences offers a number of concentrations that students may pursue in addition to a departmental major. Concentrations are elective and are not required for graduation. No specific grade point average is required for completion of any given concentration. *As a general rule, no more than eight credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators*. The catalog chosen for the student's major will also be used to determine degree requirements for any concentration the student may be pursuing. Students should file the university's Minor and Concentration Authorization Form with the department or school offering that program.

Concentrations are described under *Other College of Arts and Sciences Academic Options* at the end of the College of Arts and Sciences portion of the catalog and include the following:

addiction studies	gerontology
American studies	pre-medical studies in medical, dentistry, optometry and
archaeology	veterinary medicine
criminal justice	pre-law studies
environmental studies	religious studies
French studies	urban studies

Concentrations from other academic units are also accepted by the college for students graduating with a major from the College of Arts and Sciences. Requirements for these concentrations are described under department entries as indicated. Completion of a College of Arts and Sciences concentration satisfies the College of Arts and Sciences exploratory requirement.

Additional Information

Special provisions for transfer students

The university's general education requirements and the college's exploratory requirement call for a distribution of courses among various fields as well as a total number of credits. Students transferring from other institutions may meet a 4-credit field requirement with an appropriate three-credit transfer course. Such students, however, must take additional courses from any of the field categories to bring the total number of credits completed up to those required for their degree: 40 general education credits plus 12 college exploratory credits for the Bachelor of Arts, Bachelor of Science, and Bachelor of Social Work. Students who have completed the MTA or MACRAO agreement must complete the college exploratory requirement at a four-year institution.

Students may transfer applicable community college credits at any time during their course of study; however, such credits are limited to no more than one-half the minimum credits required for completion of a specific baccalaureate

degree program. Once this credit limit has been reached, additional community college courses may not apply. At least one-half of the credits required for completion of a specific baccalaureate degree program must be from regionally accredited four-year institutions, with at least 32 credits earned at Oakland University. (see *Transfer student information*.)

Field experience courses

The College of Arts and Sciences offers, by means of departmental courses numbered 399, opportunities for students to earn credit for academic work concurrent with field work experience. Emphasis is on the academic aspect of this program that incorporates student performance in the field. Students are required to make an intellectual analysis of the field experience based on their academic program.

The 399 courses carry four credits each, are numerically graded and may not be repeated for additional credit. Students wishing to participate in this program are expected to be at the junior or senior level and must have completed at least 16 credits in the department offering the 399 course in which they wish to enroll. Individual departments may have specific prerequisites in addition to these. For details, consult the departments or programs that offer these courses: art and art history; biological sciences; communication and journalism; history; modern languages and literatures; psychology; sociology and anthropology; women and gender studies

Department of Art and Art History

310 WILSON HALL
(248) 370-3375
Fax: (248) 370-3377
Department Website: www.oakland.edu/art-arthistory

Chairperson: *Vagner M. Whitehead*

Professors emeriti: *Bonnie F. Abiko (Art History), Janice G. Schimmelman (Art History)*

Professor: *Susan E. Wood (Art History)*

Associate professors: *Claude Baillargeon (Art History), John J. Corso, Jr. (Art History), Susan E. Evans (Art), Dick Goody (Art), Sally S. Tardella (Art), Cody VanderKaay (Art), Vagner M. Whitehead (Art)*

Assistant professors: *Meaghan Barry (Graphic Design), Colleen Ludwig (Art), Galina Tirnanic (Art History)*

Assistant adjunct professor: *Lynn M. Galbreath Fausone (Art and Graphic Design)*

Visiting Assistant Professor: *Rebecca Bieberly (Art History), Guy-Serge Emmanuel (Graphic Design)*

Special lecturers: *Bruce Charlesworth (Art), Eugene Clark (Art), Miranda Clark (Art), John Corbin (Art), Stephen Dewyer (Art), Amy E. Feigley-Lee (Art), Grace Frost (Art), Jennifer-Clare Gawaran (Art), Laura Hall (Graphic Design), Trisha Holt (Art), Keegan Kuvach (Art), David Lambert (Art), Daniel Marchwinski (Art and Graphic Design), Louisa Ngote (Art History), Anthony Olson (Art), Rachel Reynolds (Art), Maria Smith Bohannon (Graphic Design), Donna Voronovich (Art History), Bonnie Zielinski (Graphic Design)*

Lecturers: *Nicholas Bongers (Graphic Design), Katherine Burdine (Graphic Design), Eleanor Oakes (Art), Ryan Standfest (Art)*

Chief academic adviser: *Claude Baillargeon*

Art history adviser: *Susan Wood*

Graphic design adviser: *Maria Smith Bohannon*

Studio art adviser: *Sally Tardella*

Studio art K-12 art education adviser: *Colleen Ludwig*

Director of Oakland University Art Gallery: *Dick Goody*

The department offers programs of study leading to the Bachelor of Arts degree with a major in art history, graphic design, studio art or studio art with K-12 art education certification. The department's curriculum encompasses art-making as an aesthetic expression of intellectual vision, and contextual study and research into the exceptional range of aesthetic expression throughout history. Majors and non-majors can develop their knowledge and understanding of the history and practice of the visual arts. Minors in art history, graphic design and studio art are also available.

The study of art history, by its nature, is an interdisciplinary endeavor, encompassing diverse areas of the humanities. It draws upon political, economic, social, religious and intellectual history as well as aspects of the natural sciences. Through emphasis on analysis and scholarly criticism, the art history curriculum provides an excellent foundation in the visual arts of both western and non-western cultures. Critical thinking and writing are cornerstones of the art history program, with the aim that students acquire a sense of the various methodologies and theoretical issues that characterize the discipline itself.

Studio art is an academic discipline that embraces both visual communication and expression of an intellectual vision. Students gain a solid grounding in aesthetic and critical theory, develop technical skills in a variety of artistic media,

and expand their abilities to conceptualize and communicate their own vision through aesthetic means. Majors in studio art may specialize in drawing, new media, painting or photography.

Studies in art and art history require a high level of critical thinking and intellectual inquiry, as well as social, cultural, aesthetic and ideological exploration. Our goal as a department is to produce articulate, knowledgeable graduates in studio art and art history, graduates whose highly developed communication skills and creative problem solving abilities give them confidence, insight and skills to further their careers. Our majors go on in the field both through further study in graduate school, and in careers as artists, arts administrators in museums and the public sector, art conservationists, teachers, and in the wide range of careers which value the creative problem solving abilities gained in the study and practice of art.

Requirements for the liberal arts major in art history, B.A. program

A minimum of 48 credits, distributed as shown below. At least 16 credits in the major must be taken at Oakland University. Only courses in which the student has earned at least a 2.0 may be counted toward the art history major.

1. Core courses

AH 100 - History of Western Art, Prehistory through Medieval **(4)**

AH 101 - History of Western Art, Renaissance to Present **(4)**

AH 104 - Arts of Asia and the Islamic World **(4)**

2. Required course

AH 200 - Critical Thinking and Writing in Art History I **(4)** (Should be taken early in the student's major course work. Normally no more than 20 credits in the art history major may be taken prior to this course.)

AH 387 - Critical Thinking and Writing in Art History II **(4)**

3. Four courses from the following (at least one course must be selected from each category)

Non-Western

- AH 301 - Japanese Art (4)
- AH 304 - Chinese Art (4)
- AH 305 - African Art (4)
- AH 307 - Buddhist Art (4)
- AH 308 - Native American Art (4)
- AH 309 - Pre-Columbian Art (4)
- AH 310 - Art of the Ancient Near East (4)
- AH 320 - Islamic Art (4)
- AH 349 - Latin American Art (4)
- AH 357 - Chinese Architecture (4)
- AH 385 - Seminar in Art History (4)

Ancient/Medieval

- AH 310 - Art of the Ancient Near East (4)
- AH 312 - Greek Art (4)
- AH 314 - Roman Art (4)
- AH 320 - Islamic Art (4)
- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 326 - Gothic Art (4)

- AH 345 - German Art (4)
- AH 385 - Seminar in Art History (4)

Renaissance/Baroque

- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 330 - Renaissance Art in Italy (4)
- AH 334 - Renaissance Art in Northern Europe (4)
- AH 340 - Baroque Art (4)
- AH 343 - Russian Art (4)
- AH 345 - German Art (4)
- AH 348 - English Art (4)
- AH 349 - Latin American Art (4)
- AH 385 - Seminar in Art History (4)

American/Modern

- AH 343 - Russian Art (4)
- AH 350 - American Art (4)
- AH 352 - African-American Art (4)
- AH 360 - Nineteenth-Century Art (4)
- AH 361 - Modern Art 1900-1960 (4)
- AH 362 - Art Since 1960 (4)
- AH 363 - Modern Architecture and Urban Design (4)
- AH 364 - History and Theory of Graphic Design (4)
- AH 367 - Film and the Visual Arts (4)
- AH 368 - History of Photography I, 1825 to 1914 (4)
- AH 369 - History of Photography II, 1914 to Present (4)
- AH 370 - History of Prints and Printmaking (4)
- AH 377 - Visual Representations and the Nuclear Experience (4)
- AH 385 - Seminar in Art History (4)

Notes

- AH 310 - Art of the Ancient Near East may satisfy the requirement ***either*** for Non-Western **or** for Ancient/Medieval, but not both.
- AH 320 - Islamic Art may satisfy the requirement ***either*** for Non-Western **or** Ancient/Medieval, but not both.
- AH 322 - Early Medieval, Byzantine, and Romanesque Art may satisfy the requirement **either** for Ancient/Medieval ***or*** for Renaissance/Baroque, but not both.
- AH 343 - Russian Art may satisfy the requirement ***either*** for Renaissance/Baroque **or** for American/Modern, but not both.
- AH 345 - German Art may satisfy the requirement ***either*** for Ancient/Medieval **or** for Renaissance/Baroque, but not both.
- AH 349 - Latin American Art may satisfy the requirement **either** for Non-Western ***or*** Renaissance/Baroque but not both.
- AH 385 - Seminar in Art History may satisfy one of the above requirements, the subject area of which will determine the category.

Students using this catalog to meet art history major requirements may also use any course subsequently approved as satisfying requirements in the Non-Western, Ancient/Medieval, Renaissance/Baroque, and American/Modern groups and published in a later catalog.

4. Four elective credits from AH courses

5. Required course (choose one)

- SA 105 - Drawing for Non-Majors (4)
- SA 340 - Historic Painting Techniques I (4)

6. Required courses

- AH 495 - Senior Thesis in Art History I **(2)**
- AH 496 - Senior Thesis in Art History II **(2)**

Language requirement

Students must also complete one semester of a foreign language. This requirement also fulfills General Education: Foreign Language and Culture. For students intending to pursue graduate study, the departmental faculty recommends two years of college-level foreign language.

Requirements for the liberal arts major in studio art, B.A.

All majors in studio art are required to successfully complete a core group of studio art and art history courses (34 credits) and a specialization (28 credits) in one of the following field areas: drawing, painting, photography or new media. A maximum of 16 transfer credits may be applied to the major. Only courses in which the student has earned at least a 2.0 may be counted toward the studio art major. A minimum of 62 credits are required for the major, distributed as follows:

1. Core courses

- SA 102 - Foundations of Studio Art: 2D **(4)**
- SA 103 - Foundations of Studio Art: 3D **(4)**
- SA 104 - Foundations of Media Art **(4)**
- SA 200 - Critical Theory and Practice in Art **(4)**
- SA 201 - Beginning Drawing **(4)**
- SA 300 - Professional Practices and Portfolio Design **(2)**
- SA 491 - Senior Thesis in Studio Art **(4)**
- AH 101 - History of Western Art, Renaissance to Present **(4)**

2. Art history elective - choose any one of the following

- AH 291 - Concepts of Modern and Postmodern Art **(4)**
- AH 361 - Modern Art 1900-1960 **(4)**
- AH 362 - Art Since 1960 **(4)**
- AH 369 - History of Photography II, 1914 to Present **(4)**
- AH 377 - Visual Representations and the Nuclear Experience **(4)**
- AH 385 - Seminar in Art History **(4)** *(if it pertains to 20th century art)*
- AH 390 - Special Topics in Art History **(4)** *(if it pertains to 20th century art)*

3. 28 credits in one of the following specializations

Drawing

- SA 216 - Beginning Painting (4)
- SA 301 - Intermediate Drawing (4)
- SA 302 - Life Drawing I (4)

- SA 380 - Advanced Drawing and Painting I (4)
- SA 480 - Advanced Drawing and Painting II (4)
- Two elective 300- or 400-level courses; one must be an SA course; one can be SA or one of AH 361, AH 362, AH 368 or AH 369.

New Media

- SA 268 - Video Art I (4)
- SA 368 - Video Art II (4)
- SA 370 - Internet Art (4)
- SA 383 - Advanced New Media (4)
- SA 482 - Advanced Photography and New Media (4)
- Two elective 300- or 400-level courses; one must be an SA course; one can be SA or one of AH 361, AH 362, AH 368 or AH 369.

Painting

- SA 216 - Beginning Painting (4)
- SA 302 - Life Drawing I (4)
- SA 316 - Intermediate Painting (4)
- SA 380 - Advanced Drawing and Painting I (4)
- SA 480 - Advanced Drawing and Painting II (4)
- Two elective 300- or 400-level courses; one must be an SA course; one can be SA or one of AH 361, AH 362, AH 368 or AH 369.

Photography

- SA 260 - Digital Imaging I (4)
- SA 350 - Black and White Photography I (4)
- SA 360 - Digital Imaging II (4)
- SA 362 - Black and White Photography II (4)
- SA 381 - Advanced Photography (4)
- SA 482 - Advanced Photography and New Media (4)
- AH 369 - History of Photography II, 1914 to Present (4)

Note:
Students using this catalog to meet studio art major requirements may also use any course subsequently approved as satisfying requirements under the art history elective category (requirement #2 above).

Requirements for the liberal arts major in graphic design, B.A.

All majors in graphic design are required to complete successfully core foundation courses, art history courses and graphic design courses. Only courses in which the student has earned a grade of at least 2.8 may be counted towards the graphic design major. Only 16 transfer credits may be counted towards the graphic design major. A minimum of 64 credits are required for the major, to be distributed as follows:

1. Foundations

- SA 102 - Foundations of Studio Art: 2D (4)
- SA 104 - Foundations of Media Art (4)
- SA 201 - Beginning Drawing (4)
- DES 130 - Foundations of Graphic Design (4)

2. Art history

- AH 101 - History of Western Art, Renaissance to Present (4)
- AH 364 - History and Theory of Graphic Design (4)
- One elective 300-level AH course (4)

3. Graphic design

- DES 230 - Graphic Design I (4)
- DES 330 - Web Design I (4)
- DES 335 - Typography (4)
- DES 350 - Graphic Design II (4)
- DES 360 - Motion Graphics (4)
- DES 480 - Graphic Design III (4)
- DES 491 - Senior Thesis in Graphic Design (4) (permission of instructor required for enrollment in DES 491)

4. Graphic design electives - choose any two of the following

- DES 325 - Digital Illustration in Graphic Design (4)
- DES 355 - Web Design II (4)
- DES 390 - Special Topics in Graphic Design (4)
- DES 399 - Internship in Design (4)

Note:

Students using this catalog to meet graphic design major requirements may also use any course subsequently approved as satisfying requirements in the art history and graphic design electives groups and published in a later catalog.

Studio Art with K-12 Art Education Certification

The art education program at Oakland University is an extended program of study leading to K-12 certification in art. This program is offered in conjunction with the Secondary Teacher Education Program (STEP) in the School of Education and Human Services. Generally, eligibility for admission to the program requires a GPA of 3.00 in the major, and an overall GPA of 2.80. No single major course grade may be below 2.0. Since admission to this program is highly competitive, not all of those who achieve these minimal GPA standards will be admitted. Students interested in the K-12 art education certification should consult often with the art and art history department's adviser. A maximum of 16 transfer credits may be used toward the major, in addition to the required 12 corequisite credits. Students in this program must complete the requirements listed below.

The K-12 studio art education program also includes a sequence of undergraduate course work in art education and education to include: AED 301 , AED 302 , AED 303 , AED 304 , AED 455 , EED 312 or SED 300 ; EED 420 ; RDG 338 ; FE 406 ; SE 401 . Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Art and Art History, and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

1. Core courses, studio art

- SA 102 - Foundations of Studio Art: 2D (4)
- SA 103 - Foundations of Studio Art: 3D (4)
- SA 104 - Foundations of Media Art (4)
- SA 130 - Graphic Design for Non-Majors (4)
- SA 160 - Photography for Non-Majors (4) (students specializing in photography should not take SA 160)
- SA 201 - Beginning Drawing (4)
- SA 216 - Beginning Painting (4)
- SA 491 - Senior Thesis in Studio Art (4)

2. Core courses, art history

- AH 100 - History of Western Art, Prehistory through Medieval (4)
- AH 101 - History of Western Art, Renaissance to Present (4)
- AH 104 - Arts of Asia and the Islamic World (4)

3. Choose any one of the following

- AH 291 - Concepts of Modern and Postmodern Art (4)
- AH 361 - Modern Art 1900-1960 (4)
- AH 362 - Art Since 1960 (4)
- AH 369 - History of Photography II, 1914 to Present (4)
- AH 377 - Visual Representations and the Nuclear Experience (4)
- AH 385 - Seminar in Art History (4) (if it pertains to 20th century art)
- AH 390 - Special Topics in Art History (4) (if it pertains to 20th century art)

4. Choose one of the following specializations

Drawing

- SA 301 - Intermediate Drawing (4)
- SA 302 - Life Drawing I (4)
- SA 380 - Advanced Drawing and Painting I (4)
- SA 480 - Advanced Drawing and Painting II (4)
- 1 elective 300- or 400-level studio art course

New Media

- SA 268 - Video Art I (4)
- SA 368 - Video Art II (4)
- SA 370 - Internet Art (4)
- SA 383 - Advanced New Media (4)
- SA 482 - Advanced Photography and New Media (4)

Painting

- SA 302 - Life Drawing I (4)
- SA 316 - Intermediate Painting (4)
- SA 380 - Advanced Drawing and Painting I (4)

- SA 480 - Advanced Drawing and Painting II (4)
- 1 elective 300- or 400-level studio art course

Photography

- SA 260 - Digital Imaging I (4)
- SA 360 - Digital Imaging II (4)
- or SA 362 - Black and White Photography II (4)
- SA 381 - Advanced Photography (4)
- SA 482 - Advanced Photography and New Media (4)
- AH 369 - History of Photography II, 1914 to Present (4)

5. Corequisite studio art courses - 12 credits

Studio art education candidates must also take the following courses at Macomb Community College or Oakland Community College (or equivalent): ceramics/pottery, wheel-thrown ceramics/pottery, sculpture, jewelry/metalworking.

Studio Art with K-12 Art Education Certification with Specialization in Graphic Design

The art education program at Oakland University is an extended program of study leading to K-12 certification in art. This program is offered in conjunction with the Secondary Teacher Education Program (STEP) in the School of Education and Human Services. Generally, eligibility for admission to the program requires a GPA of 3.00 in the major, and an overall GPA of 2.80. No single major course grade may be below 2.0. Since admission to this program is highly competitive, not all of those who achieve these minimal GPA standards will be admitted. Students interested in the K-12 art education certification should consult often with the art and art history department's adviser. A maximum of 16 transfer credits may be used toward the major, in addition to the required 12 corequisite credits. Students in this program must complete the requirements for a B.A. degree in the College of Arts and Sciences and concurrently fulfill the requirements listed below:

1. Core courses, studio art and design

- SA 102 - Foundations of Studio Art: 2D (4)
- SA 104 - Foundations of Media Art (4)
- SA 160 - Photography for Non-Majors (4)
- SA 201 - Beginning Drawing (4)
- SA 216 - Beginning Painting (4)
- DES 130 - Foundations of Graphic Design (4)

2. Core courses, art history

- AH 100 - History of Western Art, Prehistory through Medieval (4)
- AH 101 - History of Western Art, Renaissance to Present (4)
- AH 104 - Arts of Asia and the Islamic World (4)
- AH 364 - History and Theory of Graphic Design (4)

3.Graphic design specialization

- DES 230 - Graphic Design I (4)
- DES 330 - Web Design I (4)
- DES 335 - Typography (4)
- DES 350 - Graphic Design II (4)

- DES 360 - Motion Graphics (4)
- DES 491 - Senior Thesis in Graphic Design (4) (permission of instructor and major requirement audit required to enroll in DES 491)

Eight elective credits from DES courses chosen from the following:

- DES 325 - Digital Illustration in Graphic Design (4)
- DES 390 - Special Topics in Graphic Design (4)
- DES 399 - Internship in Design (4)

Corequisite studio art courses – 12 credits

Studio art education candidates must also take the following courses at Macomb Community College or Oakland Community College (or equivalent): ceramics/pottery, wheel-thrown ceramics/pottery, sculpture, jewelry/metalworking.

Art education and education courses

The K-12 studio art education program also includes a sequence of undergraduate course work in art education and education to include: AED 301, AED 302, AED 303, AED 304, AED 455; EED 312 or SED 300; EED 420; RDG 338; FE 406; SE 401. Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Art and Art History and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

Departmental Honors in Art History

Graduating seniors who have completed 20 credits of art history at Oakland University with a GPA of 3.65 or higher in art history courses will be considered for departmental honors. Art history faculty will review the student's AH 495, AH 496 capstone work and vote on whether to award honors.

Departmental Honors in Graphic Design

Graduating seniors who have completed 20 credits of graphic design at Oakland University with a GPA of 3.65 or higher in graphic design courses will be considered for departmental honors. Design faculty will review the student's DES 491 work and vote on whether to award honors.

Departmental Honors in Studio Art

Graduating seniors who have completed 20 credits of studio art at Oakland University with a GPA of 3.65 or higher in studio art courses will be considered for departmental honors. Studio art faculty will review the student's SA 491 work and vote on whether to award honors.

Requirements for the liberal arts minor in art history

A minimum of 20 credits to be distributed as shown below. At least 12 credits from offerings in art history must be taken at Oakland. Only courses in which the student has earned at least a 2.0 may be counted toward the art history minor.

1. Two of the following courses

- AH 100 - History of Western Art, Prehistory through Medieval (4)
- AH 101 - History of Western Art, Renaissance to Present (4)
- AH 104 - Arts of Asia and the Islamic World (4)

2. One course from any two of the following categories

Non-Western

- AH 301 - Japanese Art (4)
- AH 304 - Chinese Art (4)
- AH 305 - African Art (4)
- AH 307 - Buddhist Art (4)
- AH 308 - Native American Art (4)
- AH 309 - Pre-Columbian Art (4)
- AH 310 - Art of the Ancient Near East (4)
- AH 320 - Islamic Art (4)
- AH 349 - Latin American Art (4)
- AH 357 - Chinese Architecture (4)
- AH 385 - Seminar in Art History (4)

Ancient/Medieval

- AH 310 - Art of the Ancient Near East (4)
- AH 312 - Greek Art (4)
- AH 314 - Roman Art (4)
- AH 320 - Islamic Art (4)
- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 326 - Gothic Art (4)
- AH 345 - German Art (4)
- AH 385 - Seminar in Art History (4)

Renaissance/Baroque

- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 330 - Renaissance Art in Italy (4)
- AH 334 - Renaissance Art in Northern Europe (4)
- AH 340 - Baroque Art (4)
- AH 343 - Russian Art (4)
- AH 345 - German Art (4)
- AH 348 - English Art (4)
- AH 349 - Latin American Art (4)
- AH 385 - Seminar in Art History (4)

American/Modern

- AH 343 - Russian Art (4)
- AH 350 - American Art (4)
- AH 352 - African-American Art (4)
- AH 360 - Nineteenth-Century Art (4)
- AH 361 - Modern Art 1900-1960 (4)
- AH 362 - Art Since 1960 (4)
- AH 363 - Modern Architecture and Urban Design (4)
- AH 364 - History and Theory of Graphic Design (4)
- AH 367 - Film and the Visual Arts (4)
- AH 368 - History of Photography I, 1825 to 1914 (4)
- AH 369 - History of Photography II, 1914 to Present (4)

- AH 370 - History of Prints and Printmaking (4)
- AH 377 - Visual Representations and the Nuclear Experience (4)
- AH 385 - Seminar in Art History (4)

Note

AH 310 - Art of the Ancient Near East may satisfy the requirement **either** for Non-Western **or** for Ancient/Medieval, but not both.
AH 320 - Islamic Art may satisfy the requirement **either** for Non-Western **or** Ancient/Medieval, but not both.
AH 322 - Early Medieval, Byzantine, and Romanesque Art may satisfy the requirement **either** for Ancient/Medieval **or** for Renaissance/Baroque, but not both.
AH 343 - Russian Art may satisfy the requirement **either** for Renaissance/Baroque **or** for American/Modern, but not both.
AH 345 - German Art may satisfy the requirement **either** for Ancient/Medieval **or** for Renaissance/Baroque, but not both.
AH 349 - Latin American Art may satisfy the requirement **either** for Non-Western **or** for Renaissance/Baroque, but not both.
AH 385 - Seminar in Art History may satisfy one of the above requirements, the subject area of which will determine the category.

Students using this catalog to meet art history minor requirements may also use any course subsequently approved as satisfying requirements in the Non-Western, Ancient/Medieval, Renaissance/Baroque, and American/Modern groups and published in a later catalog.

3. Four elective credits from AH courses

Requirements for the liberal arts minor in studio art

A minimum of 24 credits in studio art courses distributed as shown below. At least 12 credits from offerings in studio art must be taken at Oakland. Only courses in which a student has earned at least a 2.0 may be counted toward the studio art minor.

1. Two courses selected from

- SA 102 - Foundations of Studio Art: 2D (4)
- SA 103 - Foundations of Studio Art: 3D (4)
- SA 104 - Foundations of Media Art (4)

2. At least 16 credits from studio art courses

- At least one 4-credit course must be at the 300 level.
- Courses may not include SA 105, SA 107, SA 130 , and SA 160.

Requirements for the liberal arts minor in graphic design

A minimum of 24 credits in studio art and graphic design courses to be distributed as shown below. At least 12 credits from offerings in studio art and graphic design must be taken at Oakland. Only courses in which a student has earned at least a 2.8 may be counted toward the graphic design minor.

1. Required courses in studio art

- SA 102 - Foundations of Studio Art: 2D (4)
- SA 104 - Foundations of Media Art (4)

- DES 130 - Foundations of Graphic Design (4)

2. Required courses in graphic design

- DES 230 - Graphic Design I (4)
- DES 330 - Web Design I (4)
- DES 335 - Typography (4)

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

ART AND ART HISTORY

AH 100 - History of Western Art, Prehistory through Medieval (4)
History and analysis of the visual arts of Western Europe from prehistoric times through the Medieval period. *Satisfies the university general education requirement in the arts knowledge exploration area.*

AH 101 - History of Western Art, Renaissance to Present (4)
History and analysis of the visual arts of Western Europe from the Renaissance to the present. *Satisfies the university general education requirement in the arts knowledge exploration area.*

AH 104 - Arts of Asia and the Islamic World (4)
Introduction to the monuments of Asia, including India, China, Japan and the Islamic world, including the Near East and North Africa. *Satisfies the university general education requirement in the arts knowledge exploration area.*

AH 200 - Critical Thinking and Writing in Art History I (4)
Introduction to research in art and art history, practice in writing about art from various points of view, and analytical reading of critical texts. Written and oral presentation of major research paper. *Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 100, AH 101 or AH 104 and written permission of the instructor.

AH 262 - Introduction to the History of Western Architecture (4)
History and analysis of the architecture of Western Europe and North America from the period of ancient Greece to the present. *Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the arts knowledge exploration area.*

AH 291 - Concepts of Modern and Postmodern Art (4)
An overview of major movements, artists and critical themes of twentieth century art and an introduction to the themes of contemporary critical discourse. *Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 101.

AH 301 - Japanese Art (4)
The development of architecture, sculpture, painting, and other art forms (bronze, ceramic, lacquer ware, armor) in Japan from prehistory to modern times.
Prerequisite(s): AH 104 or IS 220.

AH 304 - Chinese Art (4)
The development of architecture, sculpture, painting, and other art forms (bronze, ceramic, lacquer ware, jade) in China from prehistory to modern times.
Prerequisite(s): AH 104 or IS 210.

AH 305 - African Art (4)
The arts of the indigenous peoples of West, Central and East Africa. May be offered concurrently at the graduate level as AH 505.
Prerequisite(s): 4 credits in art history or IS 230.

AH 307 - Buddhist Art (4)
The development of architecture sculpture, painting, and other decorative arts as created by and for the practices of Buddhism from 3rd century B.C.E. to present.
Prerequisite(s): AH 104 or REL 350.

AH 308 - Native American Art (4)
Native American art of the United States and Canada. Identical with AN 308.
Prerequisite(s): 4 credits in art history.

AH 309 - Pre-Columbian Art (4)
The arts of the Indians of Mexico, Central America and South America prior to the Spanish Conquest. Identical with AN 309.
Prerequisite(s): 4 credits in art history or IS 250.

AH 310 - Art of the Ancient Near East (4)
The architecture, sculpture and painting of Egypt, Mesopotamia, Iran, Asia Minor and Syria from the Neolithic to the Roman period. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area. Prerequisite(s): AH 100.

AH 312 - Greek Art (4)
Development of architecture, sculpture and painting in ancient Greece from ca. 2000 B.C.E. until the period of Roman domination in the Mediterranean area, ca. 100 B.C.E. *Satisfies the university general education requirement in the knowledge application integration area. Prerequisite for knowledge application integration: completion of the general education requirement in the arts knowledge integration area.*
Prerequisite(s): AH 100.

AH 314 - Roman Art (4)
The development of architecture, sculpture and painting in Etruria and in the Roman Republic and Empire from ca. 600 B.C.E. until the relocation of the capital at Constantinople in C.E. 330. *Satisfies the university general education requirement in the knowledge application integration area. Prerequisite for knowledge application integration: completion of the general education requirement in the arts knowledge exploration area.*
Prerequisite(s): AH 100.

AH 320 - Islamic Art (4)
The development of art and architecture in Islam from the seventh to the nineteenth century in the Middle East, Near East, North Africa, West and Central Asia, Arab and Moorish Spain, and the Muslim Indian subcontinent.
Prerequisite(s): AH 104 or IS 270.

AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
The development of architecture, sculpture and painting in Christian Europe from C.E. 330 through the apex of monasticism, ca. C.E. 1150.
Prerequisite(s): AH 100.

AH 326 - Gothic Art (4)
The development of architecture, sculpture and painting in western Europe from ca. 1150 through the period of the Crusades and medieval urbanism, ca. 1400.
Prerequisite(s): AH 100.

AH 330 - Renaissance Art in Italy (4)
The development of architecture, sculpture and painting in Italy during the Renaissance from 1300 to 1600.
Prerequisite(s): AH 101.

AH 334 - Renaissance Art in Northern Europe (4)
The development of architecture, sculpture and painting in northern Europe from 1400 to 1600.
Prerequisite(s): AH 101.

AH 340 - Baroque Art (4)
The development of architecture, sculpture and painting in western Europe from 1600 to 1700.
Prerequisite(s): AH 101.

AH 343 - Russian Art (4)
The development of architecture, sculpture and painting in Russia from the tenth century to the present.
Prerequisite(s): AH 101 or IS 260.

AH 345 - German Art (4)
Development of architecture, sculpture and painting in Germany from prehistory to 1871.
Prerequisite(s): AH 100 or 101.

AH 348 - English Art (4)
The development of architecture, sculpture and painting in Britain from the Renaissance through the eighteenth century.
Prerequisite(s): AH 101.

AH 349 - Latin American Art(4)
History and analysis of the visual arts of Latin America from contact to present.
Prerequisite(s): AH 100, 101 or 104.

AH 350 - American Art (4)
The development of architecture, sculpture and painting in the United States from the early colonial period to World War I.
Prerequisite(s): AH 101.

AH 351 - Women in Art (4)
The traditional image of woman in art and the contribution of women artists in Europe and the United States from the Middle Ages until the present. Identical with WGS 351.
Prerequisite(s): AH 101 or WGS 200.

AH 352 - African-American Art (4)
The arts of African-Americans from the colonial period to the present.
Prerequisite(s): AH 101.

AH 355 - Michigan Architecture (4)
The development of the commercial, domestic, industrial, public and religious architecture of Michigan from the period of early settlement to the present. May be offered concurrently at the graduate level as AH 555.

AH 357 - Chinese Architecture (4)
The development of the built environment in China from prehistory to modern times with emphasis on structural and stylistic evolvement, cultural exchange, and ideological engagement.
Prerequisite(s): AH 104 or IS 210.

AH 360 - Nineteenth-Century Art (4)
The development of sculpture, painting and related media in the western world from the French Revolution to 1900.
Prerequisite(s): AH 101.

AH 361 - Modern Art 1900-1960 (4)
The development of sculpture, painting and related media in the western world from 1900 to 1960.
Prerequisite(s): AH 101.

AH 362 - Art Since 1960 (4)
The development of sculpture, painting and related media in the Western world from 1960 to the present. Satisfies the university general education requirements in U.S. Diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): AH 101.

AH 363 - Modern Architecture and Urban Design (4)
The development of architecture and urban design in Europe and the United States from the Industrial Revolution to the present.
Prerequisite(s): AH 101.

AH 364 - History and Theory of Graphic Design (4)
History and theory of design, including major movements, designers and critical issues in design discourse. *Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 101.

AH 367 - Film and the Visual Arts (4)
The study of film as a visual art and the relationship between film and twentieth-century artistic movements.
Prerequisite(s): AH 101 or CIN 150.

AH 368 - History of Photography I, 1825 to 1914 (**4)**
Development of still photography as a mode of visual art and communication from its invention to the first world war.
Prerequisite(s): AH 101.

AH 369 - History of Photography II, 1914 to Present (4)
The growth of still photography as a form of visual art and communication from the first world war to the present.
Prerequisite(s): AH 101.

AH 370 - History of Prints and Printmaking (4)
The graphic arts in Europe and America from 1450 to the present, including printmaking techniques, collecting and conservation. Students will study original prints.
Prerequisite(s): AH 101.

AH 375 - History of the Decorative Arts (4)
The decorative arts in Europe and America from 1450 to the present.
Prerequisite(s): AH 101.

AH 377 - Visual Representations and the Nuclear Experience (4)
History and analysis of the nuclear era from a global visual perspective.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

AH 380 - Museum Studies in Art History (4)
The study of the art museum, including an overview of the museum profession, management and care of collections, and the registration, conservation, exhibition and interpretation of art objects in a museum setting. The course format will include lectures and field trips.
Prerequisite(s): 16 credits in art history, of which at least 8 must be at the 300-400 level.

AH 385 - Seminar in Art History (4)
Seminar in a specific area of art history. May be repeated in a subsequent semester on a different topic for credit, but may only be used once to satisfy a field category in the art history major. The subject area will determine the category.
Prerequisite(s): AH 100, AH 101 or AH 104 as appropriate for the seminar; AH 200 and permission of instructor.

AH 387 - Critical Thinking and Writing in Art History II (4)
Introduction to critical theory and the application of its methodologies to the study of art. *Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 200 or permission of instructor.

AH 390 - Special Topics in Art History (4)
Specific topics in art history for which no regular course offerings exist. Topic will be announced before each offering. May be repeated for 4 additional credits.
Prerequisite(s): permission of instructor.

AH 391 - Readings in Art History (2)
Specific readings in art history, art criticism, connoisseurship and conservation. May be repeated in a subsequent semester on a different topic for a total of 4 credits.
Prerequisite(s): 16 credits in art history of which at least 8 must be at the 300-400 level and permission of instructor.

AH 395 - Study Abroad in Art History (1 TO 4)
Specific topics and directed individual research in art history offered through the Center for International Programs. Specific international program will be announced in the schedule of classes.
Prerequisite(s): permission of Director of International Education.

AH 396 - Directed Study Abroad in Art History (1 TO 4)
Directed individual research for art history majors who travel abroad to study art monuments. Topics must be approved by instructor before departure. May be repeated in a subsequent semester on a different topic for a total of up to 8 credits.
Prerequisite(s): permission of instructor.

AH 399 - Field Experience in Art History (4)
Field experience for art history majors under faculty supe academic project that incorporates student performance in an occupational setting. May not be repeated for credit or taken by students who have received credit for SA 399.
Prerequisite(s): permission of instructor.

AH 495 - Senior Thesis in Art History I (2)
A two semester sequence in methodology and directed individual research for art history majors, culminating in a capstone research and writing project and an oral presentation. Offered in sequential fall and winter semesters. AH 495 must be taken first. *Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): Senior standing, AH 200, and 28 credits of art history of which at least 12 must be at the 300 level, and permission of instructor.

AH 496 - Senior Thesis in Art History II (2)
A two semester sequence in methodology and directed individual research for art history majors, culminating in a capstone research and writing project, and an oral presentation. Offered in sequential fall and winter semesters. AH 495 must be taken first. *Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 495.

AH 497 - College Teaching Apprenticeship (2 OR 4)
Supervised participation in teaching an undergraduate course in art history. Discussion of teaching objectives and methods.
Prerequisite(s): Permission of instructor.

AH 499 - Independent Research in Art History (4)
Independent research for art history majors.
Prerequisite(s): permission of instructor.

GRAPHIC DESIGN

DES 130 - Foundations of Graphic Design (4)
Exploration of the professional practice of graphic design as an applied art form. Emphasis will be placed on image, text, and grid system structures. Students will be introduced to graphic design history and theory.
Prerequisite(s): SA 102 and 104.

DES 230 - Graphic Design I (4)
Conceptual and technical approaches to graphic design. Print-specific assignments will address concept through basic applied practices of print/digital production.
Prerequisite(s): DES 130 with a grade of 2.8 or higher.

DES 325 - Digital Illustration in Graphic Design (4)
Study of illustration concepts and techniques through lectures and studio assignments. May include both traditional mediums and digital illustration assignments.
Prerequisite(s): DES 230.

DES 330 - Web Design I (4)
Aesthetics, methodologies, and tools of web design. Students will learn to balance technical skills with artistic skills to create web pages that are conceptually interesting, easily navigable, visually pleasing, and functional.
Prerequisite(s): DES 130 with a grade of 2.8 or higher.

DES 335 – Typography (4)
Exploration of typography as used in applied and fine art forms through traditional hands-on and digital design assignments. Emphasis placed on type as form.
Prerequisite(s): DES 130 with a grade of 2.8 or higher.

DES 350 - Graphic Design II (4)
Branding and identity class. Through independent and group case studies and design projects, students will explore solutions for developing effective and meaningful identity systems.
Prerequisite(s): DES 230 with a grade of 2.8 or higher.

DES 355 - Web Design II (4)
Advanced web page design techniques including scripting and site design issues such as scalability, maintenance, and integration of web technologies into business and organizational context.
Prerequisite(s): DES 330 with a grade of 2.8 or higher.

DES 360 - Motion Graphics (4)
Exploration of conceptual and technical approaches to motion graphics. Emphasis will be placed on text, object, and the interaction between the two over time.
Prerequisite(s): DES 335 with a grade of 2.8 or higher.

DES 385 - Community Design (4)
Creation of quality design concepts for non-profit organizations. Students will work in teams to pitch ideas, develop designs and follow design concepts through to production as if part of an operational graphic design studio. Prerequisite(s): DES 230 and DES 335, each with a grade of 2.8 or higher.

DES 390 - Special Topics in Graphic Design (4)
Current issues and contemporary approaches in the areas of graphic design for which no regular course offerings exist. Topic, Instructor and prerequisite will be announced before each offering. May be repeated for 4 additional credits under different subtitle.

DES 395 - Package Design (4)
In-depth look at the design, production, evaluation, and analysis of various types of packaging. Creative solutions for package design, three-dimensional mock-ups and models, material restrictions and limitations.
Prerequisite(s): DES 350 with a grade of 2.8 or higher.

DES 399 - Internship in Design (4)
Field experience for design majors under faculty supervision. An academic project that incorporates student performance in an occupational setting.
Prerequisite(s): Junior/Senior standing; 16 credits in graphic design, of which at least 8 must be at the 300-400 level; permission of instructor.

DES 480 - Graphic Design III (4)
Process of creating professional-level design work, from written concept brief through finished design package.
Prerequisite(s): DES 330 and 350.

DES 491 - Senior Thesis in Graphic Design (4)
Directed individual study requiring development of a coherent package of advanced graphic design work, culminating in a thesis exhibition and thesis paper. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite(s): DES 360 and 480 and permission of instructor.

STUDIO ART

SA 100 - Foundations of Visual Literacy (4)
In this analytical overview of the forms and uses of visual imagery, students will learn to think critically about the formal methods and cultural impact of contemporary art media. *Satisfies the university general education requirement in the arts knowledge exploration area.*

SA 102 - Foundations of Studio Art: 2D (4)
Hands-on course exploring the visual, physical, and social aspects of two-dimensional art forms with emphasis on the principles and application of design elements such as line, shape, texture, value, and color.

SA 103 - Foundations of Studio Art: 3D (4)
Hands-on course exploring the visual, physical and social aspects of three-dimensional art forms with emphasis on the principle and application of design elements such as line, shape, plane, texture, mass, volume, light, space, and time.

SA 104 - Foundations of Media Art (4)
Students explore the aesthetic, conceptual and technological transformations of media passing into, through and out of the digital domain.

SA 105 - Drawing for Non-Majors (4)
Through observation and the building of basic drawing skills, students with little or no art experience explore the fundamentals of traditional drawing. Cannot be used to fulfill any studio art requirement for the studio art major or minor. *Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area.*

SA 107 - Painting for Non-Majors (4)
Focus on technique and building of basic painting skills. Students with little or no art experience explore the fundamentals of painting. Cannot be used to fulfill any studio art requirements for the major or minor.

SA 130 - Graphic Design for Non-Majors (4)
Through observation and the building of graphic design skills, students with little or no experience explore the elements and fundamentals of the field. Cannot be used to fulfill any studio art or graphic design requirements for the major or minor.

SA 160 - Photography for Non-Majors (4)
Introduction to the technical, intellectual, inventive, and expressive possibilities of a broad range of traditional and non-traditional photographic processes. Cannot be used to fulfill any studio art requirements for the major or minor, but does fulfill a core requirement for majors in the studio art education K-12 degree program. *Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area.*

SA 200 - Critical Theory and Practice in Art (4)
Analytical reading in critical art and cultural theory, combined with the practice of art, critical analysis, writing and lecturing about art. *Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): AH 101; may not be taken concurrent with SA 491.

SA 201 - Beginning Drawing (4)
The fundamentals of drawing, through accurate observation of the physical world, are explored: tools, techniques, rendering linear perspective and chiaroscuro.
Prerequisite(s): SA 102

SA 203 - Introduction to Sculpture (4)
Introduction to the technical, conceptual, and expressive possibilities of sculptural art forms and practice.

SA 216 - Beginning Painting (4)
Introduction to the technical, intellectual, inventive and expressing possibilities of oil painting on canvas.
Prerequisite(s): SA 201.

SA 260 - Digital Imaging I (4)
Explores the digital photographic process (cameras, scanners, and digital manipulation) as tools to create conceptually relevant art.
Prerequisite(s): SA 104.

SA 268 - Video Art I (4)
Introduction to the creation of video as an art form from historical, conceptual, and practical perspectives. Thematic projects cover contemporary topics in video art. Screenings and articles are discussed to complement artistic production.
Prerequisite(s): SA 104.

SA 300 - Professional Practices and Portfolio Design (2)
Professional preparation in studio art, through portfolio design, writing for the visual arts, studio safety/environmental issues and the financial, legal and ethical aspects of careers in art.
Prerequisite(s): SA 104 and any 200 level studio art class.

SA 301 - Intermediate Drawing (4)
Building upon traditional perceptual drawing skills, class moves towards more conceptual and experimental issues and applications of drawing.
Prerequisite(s): SA 201

SA 302 - Life Drawing I (4)
Drawing from the life model, course focuses on the traditional practices of anatomical rendering.
Prerequisite(s): SA 201.

SA 308 - Large Format Drawing (4)
Explores the formal, conceptual, expressive and dynamic possibilities of large-scale drawing.
Prerequisite(s): SA 301.

SA 310 - Media Drawing (4)
Pushes the boundaries of traditional drawing by examining new methods of working and new and nontraditional materials, exploring cutting-edge of new media and contemporary art.
Prerequisite(s): SA 301.

SA 316 - Intermediate Painting (4)
Focus on technique, perceptual development and personal expression. Accurate rendering in paint of proportion, volume and chiaroscuro is given precedence.
Prerequisite(s): SA 216.

SA 317 - Life Painting I (4)
Focuses on objective study and formal construction of the figure using oil paint. Emphasis is placed upon accuracy and chiaroscuro.
Prerequisite(s): SA 302.

SA40 - Historic Painting Techniques I (4)
Study of the techniques of the Old Masters, focusing on the tools and methods of five hundred years of western painting, particularly oil glazes on panel, egg tempera on panel, fresco and oil on canvas.
Prerequisite(s): AH 101 or SA 102.

SA 341 - Historic Painting Techniques II (4)
Building on SA 241, class focuses on a particular epoch or artist for a more refined directed individual course of study.
Prerequisite(s): SA 340.

SA 350 - Black and White Photography I (4)
Focus on the development of traditional photographic technique and the conceptual practice of photography as a fine art medium.
Prerequisite(s): SA 104.

SA 360 - Digital Imaging II (4)
Building upon the digital photographic process, the course moves toward more conceptual, technical and experimental issues and application of photography.
Prerequisite(s): SA 260.

SA 362 - Black and White Photography II (4)
Building upon traditional printing skills, course moves toward more conceptual, technical, and experimental issues and application of photography.
Prerequisite(s): SA 350.

SA 368 - Video Art II (4)
A continuation of Video Art I with emphasis on individual development. Projects explore aesthetic and conceptual forms used in contemporary video art. Screenings and articles are discussed to complement artistic production.
Prerequisite(s): SA 268.

SA 370 - Internet Art (4)
Utilizing the World Wide Web as their medium, students will create non/multilinear and interactive art pieces for public online access. Aesthetic and conceptual issues on the brief history of this medium are explored.
Prerequisite(s): SA 104.

SA 375 - Conceptual and Postmodern Art (4)
Advanced course explores the intellectual and expressive possibilities of conceptual and postmodern art through the creation of art that questions traditional modes of representation.
Prerequisite(s): SA 268, 301 or 316.

SA 380 - Advanced Drawing and Painting I (4)
Progression from assignment-based work to individualized bodies of artwork in drawing and painting, emphasizing personal expression, use of materials, and aesthetic critical theory.
Prerequisite(s): SA 301 or 316; may not be taken concurrent with SA 480.

SA 381 - Advanced Photography (4)
Progression from assignment-based work to individualized bodies of artwork in photography emphasizing self-expression, use of materials, and aesthetic critical theory.
Prerequisite(s): SA 260, 350 and either 360 or 362.

SA 383 - Advanced New Media (4)
Progression from assignment-based work to individualized bodies of artwork in new media emphasizing personal expression, aesthetic critical theory, experimentation and advanced digital skills.
Prerequisite(s): SA 368, 370.

SA 392 - Topics in Studio Art (4)
Specific topics in studio art for which no regular course offerings exist. Topic, instructor and prerequisite will be announced before each offering. May be repeated for 4 additional credits.
Prerequisite(s): permission of instructor.

SA 395 - Projects in Studio Art (2)
Specific projects in studio art for which no regular offerings exist. May be repeated in a subsequent semester under a different instructor for a total of 4 credits.
Prerequisite(s): permission of instructor.

SA 396 - Directed Study Abroad in Studio Art (1 TO 4)
Directed individual research for studio art majors who travel abroad to study art monuments. Topic/creative activity must be approved by instructor before departure. May be repeated in a subsequent semester on a different topic for a total of up to 8 credits.
Prerequisite(s): permission of instructor.

SA 397 - Study Abroad in Studio Art (4)
Specific topics and directed individual creative activity in studio art offered through the Center for International Programs. Specific international program will be announced in the schedule of classes.
Prerequisite(s): permission of Director of International Education.

SA 399 - Field Experience in Studio Art (4)
Field experience for studio art majors under faculty supervision. An academic project that incorporates student performance in an occupational setting. May not be repeated for credit or taken by students who have received credit for AH 399.
Prerequisite(s): permission of instructor.

SA 480 - Advanced Drawing and Painting II (4)
In-depth individual study and group critique as students begin work on self-assigned projects as precursors to their student thesis work.
Prerequisite(s): SA 380; may not be taken concurrent with SA 380 or 491.

SA 482 - Advanced Photography and New Media (4)
In-depth individual study and group critique as students begin work on self-assigned projects as precursors to their senior thesis artwork.
Prerequisite(s): SA 381 or 383.

SA 491 - Senior Thesis in Studio Art (4)
Focusing on directed individual study, the student completes a coherent body of advanced art work, culminating in a thesis exhibition and thesis paper. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite(s): senior standing, and either SA 480 or 482, and permission of instructor.

SA 495 - Independent Study in Studio Art (4)
Directed individual investigation of specific problems in the visual arts. May be repeated in a subsequent semester on a different topic for a total of 8 credits.
Prerequisite(s): permission of instructor.

SA 497 - Apprentice College Teaching (2 OR 4)
Supervised participation in teaching an undergraduate course in studio art. Discussion of teaching objectives and methods.
Prerequisite(s): Permission of instructor.

Biochemistry Program

Coordinator: *Arthur W. Bull (Chemistry)*

Biochemistry Committee*: Sitaramayya Ari (Chemistry), Arthur W. Bull (Chemistry), Anne L. Hitt (Biological Sciences), Sanela Martic (Chemistry), Chabi Govind (Biological Sciences), Zijuan Liu (Biological Sciences)*

This interdepartmental program offers a Bachelor of Science degree with a major in biochemistry. The biochemistry program is based on faculty resources and research facilities in the departments of Biological Sciences and Chemistry. The curriculum is designed to prepare students for a career in biochemical research, graduate study in biochemistry or molecular biology, or professional education in medicine, dentistry or other health sciences.

Undergraduate students in the biochemistry program have access to faculty research laboratories and are encouraged to participate in various ongoing research programs such as studies in metabolism, gene expression, hormone action, immunochemistry, molecular biology, molecular genetics and macromolecular structure.

The minimum requirement for a B.S. in biochemistry is 124 credits, including coursework in biological sciences (16 credits), chemistry (32 credits) and biochemistry (12 credits). No more than 8 credits of course work used to fulfill the requirements of a major or minor in biology may be used to fulfill the requirements of a major in biochemistry. Courses used to fulfill the requirements for a major in biochemistry may not be used simultaneously to fulfill the requirements for a major or minor in chemistry.

Admission to Major Standing

Students may apply for major standing after completion of 18 credits of chemistry and at least 8 credits of biology from the requirements listed below, with a grade point average (GPA) of at least 2.50 in those courses. The biochemistry committee must approve major standing and a detailed plan of study at least three semesters prior to graduation.

Requirements for the Bachelor of Science degree in biochemistry

Students wishing to select the biochemistry major should prepare a detailed plan of study in consultation with a member of the Biochemistry Committee. To earn the Bachelor of Science degree with a major in biochemistry, students must complete:

1. Required courses

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)

2. Eight or more credits of biology chosen in consultation with the biochemistry program coordinator from the following courses

- BIO 309 - Biology of the Cell (4)
- BIO 310 - Biology of the Cell Laboratory (1)
- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)
- BIO 321 - Medical Physiology (4)
- BIO 322 - Physiology Laboratory (1)
- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)
- BIO 329 - Principles of Pharmacology (4)
- BIO 341 - Genetics (4)

Other appropriate courses may be approved on an individual basis.

3. 32 credits of chemistry, including

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- CHM 325 - Analytical Chemistry (4)
- CHM 342 - Physical Chemistry I (4)
- CHM 343 - Physical Chemistry II (4)

4. 12 or more credits of biochemistry including

- BCM 453 - Biochemistry I (3)
- BCM 454 - Biochemistry II (3)
- BCM 457 - Biochemistry Laboratory (3)

And additional credits selected from the following courses

- BIO 407 - Cellular Biochemistry (4)
- BIO 417 - Molecular Biology (4)
- BIO 419 - Advanced Genetics (4)
- BIO 421 - Medical Microbiology (4)
- BIO 423 - Immunology (4)
- BIO 441 - Microbial Biotechnology (4)
- BIO 443 - Functional Genomics and Bioinformatics (4)
- BIO 445 - Principles of Evolutionary Medicine (4)
- BIO 475 - Human Genetics (4)
- CHM 412 - Atmospheric Chemistry (3)
- CHM 413 - Environmental Aquatic Chemistry (3)
- CHM 458 - Biochemistry Projects (2)
- CHM 553 - Advanced Biochemistry (3)
- CHM 554 - Topics in Biochemistry (3)
- CHM 581 - Biochemical Toxicology (3)
- BCM 490 - Biochemistry Research (1 TO 4)

Other appropriate courses may be approved on an individual basis.

5. Corequisites

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)

6. Admission to major standing at least three semesters prior to graduation

Students may apply for major standing after completion of 18 credits of chemistry and at least 8 credits of biology, with a grade point average (GPA) of 2.50 in those courses. The biochemistry committee must approve major standing and a detailed plan of study at least three semesters prior to graduation.

Recommended electives

- STA 226 - Applied Probability and Statistics (4)
- CHM 220 - Introduction to Computational Chemistry (2)

Pre-medical studies concentration: medicine, dentistry, optometry and veterinary medicine

The Bachelor of Science degree with a major in biochemistry provides students with all the requirements for a pre-medical studies concentration. The Bachelor of Science degree and the Bachelor of Arts degree with a major in chemistry provide students with all the requirements for a pre-medical studies concentration with the exception of five courses in biology/biochemistry that must be completed. Students interested in a medical career should refer to the pre-medical studies concentration in medicine, dentistry, optometry and veterinary medicine (see Other Academic Options of catalog) and consult with the biology or biochemistry adviser and with the College of Arts and Science Advising Office or a Department of Biological Sciences Adviser.

The department offers selected courses from this catalog as warranted by student needs and faculty availability.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and faculty availability. Specific offerings for each term may be found in the *Schedule of Classes.*

BIOCHEMISTRY

BCM 453 - Biochemistry I(3)
First course in a comprehensive biochemistry sequence. Structure and function of proteins, carbohydrates and lipids. Enzyme mechanisms, kinetics and regulation. Bioenergetics and catabolism. Identical with CHM 453.
Prerequisite(s): CHM 235.

BCM 454 - Biochemistry II(3)
Metabolic pathways and control. Nucleic acid structure, function and processing, including regulation of gene expression. Selected topics in molecular physiology. Identical with CHM 454.
Prerequisite(s): BCM/CHM 453.

BCM 457 - Biochemistry Laboratory(3)
Techniques of extraction, separation, identification and quantification of proteins and DNA including electrophoresis and various forms of chromatography; study of enzyme kinetics and regulation of catalytic activity; molecular biology methods including cloning, polymerase chain reaction, site-directed mutagenesis and expression and analysis of mutated proteins. Emphasis placed on mathematical treatment of experimental data. Identical with CHM 457. Satisfies the university general education requirement for the capstone experience. Satisfies the university general eduction requirement for a writing intensive course in the major. Prerequisite for writing intensive; completion of the university writing foundation requirement.
Prerequisite(s): BCM or CHM 453, which may be taken concurrently.

BCM 489 - Biotechnology Internship(2 TO 4)
The application of biochemical principles and methods in an off-campus technical setting that has been pre-approved by program committee. Does not count toward major credit. Graded S/U. May be repeated for a maximum of 6 credits.
Prerequisite(s): BCM 453, approved major standing and permission of instructor.

BCM 490 - Biochemistry Research(1 TO 4)
Laboratory experience in biochemical research requiring at least four hours of work per week per credit. May be repeated for credit. Graded S/U or numerically by written arrangement with faculty research mentor. Graded option requires a

written report of research accomplishments and is limited to a total of 4 credits.
Prerequisite(s): permission of instructor.

Department of Biological Sciences

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Chairperson: *Arik Dvir*

Professors emeriti: *Francis M. Butterworth, John D. Cowlishaw, George J. Gamboa, Esther M. Goudsmit, R. Douglas Hunter, Charles B. Lindemann, Virinder K. Moudgil, Ashish C. Nag, John R. Reddan, Nalin J. Unakar*

Professors: *G. Rasul Chaudhry, Sheldon R. Gordon, Shailesh K. Lal*

Associate professors: *Amy Banes-Berceli, Keith A. Berven, Arik Dvir, Chabi Govind, Feona M. Hansen, Anne L. Hitt, Lan Jiang, Shailesh K. Lal, Zijuan Liu, Gerard Madlambayan, Scott Tiegs, Satish K. Walia, Douglas L. Wendell*

Assistant professors: *Fabia U. Battistuzzi, Sara Blumer-Schuette, Mary Jamieson, Thomas R. Raffel, Mi Hye Song, Luis G. Villa-Diaz, Randal Westrick*

Adjunct associate professors: *Sumit Dinda, Andrew F. X. Goldberg, Mary Tracy-Bee*

Adjunct assistant professors: *Sarah Hosch, Ashok Kumar, Mark A. Sturtevant*

Special instructors: *Mary Ann Bednarski, Mary E. Craig, Michael O'Regan, Jonathan F. Yates*

Special lecturers: *Subha Bhaskaran, Thomas G. Fishwild, Holly Greiner-Hallman, Janell Hallauer, Christopher Kauhn, Gary Miller, Ann Sturtevant*

Lecturers: *Jonathan Bartkus, Gerard R. Jozwiak, Andrea Moyer, Jenn-Tser Pan*, *Stacey Wensink*

Chief adviser*: Sarah Hosch*

The Department of Biological Sciences offers several undergraduate programs of study leading to a Bachelor of Arts degree in biology and the Bachelor of Science degrees in biology, biomedical sciences, biochemistry, and bioengineering. These undergraduate programs prepare students for graduate study in the life sciences; professional careers in medicine, dentistry, optometry or veterinary medicine; laboratory work and research in industries concerned with biological materials; nursing or other allied health areas; or teaching science in high school. These programs in biology are particularly suited to the needs of pre-medical students. For information on graduate study within the department, see the *Oakland University Graduate Catalog*.

The department's academic programs benefit from a diversified selection of courses and research opportunities in biochemistry, bioinformatics, botany, cell and molecular biology, developmental biology, ecology, evolutionary biology, genetics, microbiology, morphology, physiology, immunology and zoology. Students select courses that suit their goals and interests. Students may apply to participate in the research laboratories of individual faculty members for which they may receive course credit (BIO 490). In the past, many such students have appeared as co-authors on scientific publications as a result of the work in which they participated. Such opportunities are of particular value to students preparing for graduate study or research positions. High school students intending to major in biological sciences should refer to the Admissions section of the catalog for specific

preparation requirements. All biology prerequisite courses must be completed with a minimum grade of 2.0 or higher.

Requirements for the liberal arts major in biology, B.A. program

This curriculum is designed for students intending to incorporate a biology major into a broader liberal arts program in pursuit of careers in technical fields or business or postgraduate study. Students in the B.A. curriculum who wish to apply to medical or dental schools are advised to complete the concentration in pre-medical studies: medicine, dentistry, optometry and veterinary medicine.

A minimum of 42 credits in biology (excepting BIO 101, 104, 110, 121, and 300) is required, including at least nine lecture courses and a minimum of four BIO laboratory courses. Students must complete:

1. Required courses

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- BIO 315 - Fundamentals of Biochemistry (4) or BIO 325 - Biochemistry I (4)
- BIO 341 - Genetics (4)
- BIO 387 - Evolutionary Biology (4)
- BIO 495 - Scientific Inquiry and Communication (4)

2. One course from each of the following areas

Cell-Molecular/Biomedical

- BIO 309 - Biology of the Cell (4)
- BIO 319 - General Microbiology (4)
- BIO 321 - Medical Physiology (4)
- BIO 323 - Developmental Biology (4)
- BIO 417 - Molecular Biology (4)

Systems Biology

- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 311 - Botany (4)
- BIO 317 - Vertebrate Zoology (5)
- BIO 353 - Animal Behavior (4)
- BIO 373 - Field Botany (4)
- BIO 377 - Marine Biology (4)
- BIO 465 - Medical Parasitology (4)
- BIO 471 - Stream Ecology (3)
- BIO 474 - Tropical Field Ecology (3)

3. Two additional biology elective courses, one of which must be a 400-level lecture course

Note: BIO 405, BIO 430, BIO 432, BIO 490, BIO 495 and BIO 497 do not satisfy this requirement.

4. Minimum of four biology laboratory courses, of which three must be at the 300 level or above

Note: One course may be BIO 490 - Independent Research. BIO 332 and BIO 490 may only count toward one laboratory requirement, even if taken multiple times. BIO 206 does not fulfill this requirement.

5. Chemistry requirements

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)

6. Physics requirements

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

7. Mathematics requirement

- MTH 141 - Precalculus (4) (or course competency as determined by the Department of Mathematics and Statistics)

8. Statistics requirement

- STA 228 - Statistical Methods for Biology (4)

Note

Corresponding lecture and lab courses should normally be taken simultaneously. Note that some courses have incorporated labs into lecture credit while other labs are given separate credit.

Students using this catalog to meet biology B.A. major requirements may also use any course subsequently approved as satisfying requirements in the cell-molecular/biomedical and systems biology elective areas and published in a later catalog.

Requirements for the major in biology, B.S. program

This curriculum is designed for students who wish to pursue a career in the sciences, including medicine and health-related fields. A minimum of 52 credits in biology (excepting BIO 101, 104, 110, 121 and 300) is required, including at least ten lecture courses and a minimum of five BIO laboratory courses. Students must complete:

1. Required courses

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- BIO 325 - Biochemistry I (4)
- BIO 341 - Genetics (4)
- BIO 387 - Evolutionary Biology (4)

- BIO 495 - Scientific Inquiry and Communication (4)

2. One course from each of the following areas

Cell-Molecular/Biomedical

- BIO 309 - Biology of the Cell (4)
- BIO 319 - General Microbiology (4)
- BIO 321 - Medical Physiology (4)
- BIO 323 - Developmental Biology (4)
- BIO 417 - Molecular Biology (4)

Systems Biology

- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 311 - Botany (4)
- BIO 317 - Vertebrate Zoology (5)
- BIO 353 - Animal Behavior (4)
- BIO 373 - Field Botany (4)
- BIO 377 - Marine Biology (4)
- BIO 465 - Medical Parasitology (4)
- BIO 471 - Stream Ecology (3)
- BIO 474 - Tropical Field Ecology (3)

Systems Physiology

- BIO 207 - Human Physiology (4)
- BIO 209 - Comparative Physiology (4)
- BIO 211 - Plant Physiology (4)

3. Three additional biology elective courses, two of which must be 400-level lecture courses

Note: BIO 405, BIO 430, BIO 432, BIO 490, BIO 495 and BIO 497 do not satisfy this requirement for a 400-level lecture course but may be used to fulfill additional biology elective credits.

4. Minimum of five biology laboratory courses, of which four must be at the 300-level or above.

Note: BIO 206 does not fulfill this requirement. BIO 332 and BIO 490 may only count toward one lab requirement, even if taken multiple times.

5. Chemistry requirements

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)

Plus one of the following:

- CHM 235 - Organic Chemistry II (4) and CHM 237 - Organic Chemistry Laboratory (2) or

- CHM 220 - Introduction to Computational Chemistry (2) and CHM 325 - Analytical Chemistry (4)

6. Physics requirements

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

7. Mathematics requirements (up to 8 credits)

- MTH 141 - Precalculus (4)
- MTH 122 - Calculus for the Social Sciences (4) or MTH 154 - Calculus I (4)
  (or course competency as determined by the Department of Mathematics and Statistics)

8. Four credits of statistics

- STA 228 - Statistical Methods for Biology (4)

Note

Corresponding lecture and lab courses should normally be taken simultaneously. Note that some courses have incorporated labs into lecture credit while other labs are given separate credit.

Students using this catalog to meet biology B.S. major requirements may also use any course subsequently approved as satisfying requirements in the cell-molecular/biomedical and systems biology elective areas and published in a later catalog.

Requirements for a modified major in biology (B.S.) with a specialization in anatomy

Adviser: *Mary E. Craig*

Students may elect this specialization in their sophomore year. The selection of all courses should be planned in consultation with the adviser.

Biology courses required for the anatomy specialization

- BIO 205 - Human Anatomy (4)
- BIO 206 - Human Anatomy Laboratory (1)
- BIO 457 - Advanced Visceral Human Anatomy (4)
- BIO 458 - Advanced Regional Dissection (2)
- BIO 460 - Neuroanatomy (4)

And one of the following electives:

- BIO 305 - Histology (4) with BIO 306 - Histology Laboratory (1)
- BIO 317 - Vertebrate Zoology (5)
- BIO 459 - Advanced Musculoskeletal Human Anatomy (4)

Requirements for a modified major in biology (B.S.) with a specialization in cell-molecular biology

Adviser: *Lan Jiang*

Students considering a career in cell biology, biotechnology or molecular biology may elect this specialization in their sophomore year. The selection of all courses should be planned in consultation with the adviser.

Biology courses required are:

- BIO 309 - Biology of the Cell (4)
- BIO 310 - Biology of the Cell Laboratory (1)
- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)
- BIO 326 - Biochemistry I Laboratory (1)
- BIO 342 - Genetics Laboratory (1)
- BIO 417 - Molecular Biology (4)
- BIO 425 - Biochemistry II (4) or BIO 437 - Virology (4)

Requirements for a modified major in biology (B.S.) with a specialization in microbiology

Adviser: *Sara Blumer-Schuette*

Students may elect this specialization in their sophomore or junior year. The selection of all courses should be planned in consultation with the adviser.

Biology courses required for the microbiology specialization are

- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)
- BIO 421 - Medical Microbiology (4)
- BIO 437 - Virology (4)

And one of the following electives

- BIO 417 - Molecular Biology (4)
- BIO 423 - Immunology (4)
- BIO 441 - Microbial Biotechnology (4)
- BIO 443 - Functional Genomics and Bioinformatics (4)

Concentration in pre-medical studies: medicine, dentistry, optometry and veterinary medicine

Pre-Medical Studies: Medicine, Dentistry, Optometry and Veterinary Medicine Concentration

Professional adviser: Carmen Gamlin

Academic Advising: Interested students should consult with the Pre-Medical Advising Office, the College of Arts and Sciences Advising Office or a Department of Biological Sciences faculty adviser for counseling and assistance in planning their academic programs.

Committee: Gennie Anderson (School of Health Sciences), Amy Banes-Berceli (Biological Sciences), Sharise Calhoun (Admissions), Ashley Cerku (Writing Center), Shannon Esselink (College of Arts and Sciences Advising), Christina Grabowski (School of Medicine), Sarah Hosch (Biological ciences), Anne Hitt (College of Arts and Sciences), Nessan Kerrigan (Chemistry), Kristin Landis-Piwowar (School of Health Sciences), Amanda Lynch (School of Health Sciences), Denise McConkey (Career Services), Sandra Powell (Honors College), Jonathan Reusch (Career Services), Brad Roth (Physics), Ann Selva (College of Arts and Sciences), Mohammad Siadat (Computer Science and Engineering), Michelle Southward (School of Health Sciences), Kristin Thompson (School of Health Sciences), Keith Williams (Psychology)

The concentration in pre-medical studies is intended for students who wish to pursue careers in medicine, dentistry, optometry or veterinary medicine. The Bachelor of Science degree with a major in biology provides students with all the requirements for a concentration in pre-medical studies. Students in the Bachelor of Arts degree program will need to complete two semesters of organic chemistry and laboratory in addition to their other science requirements. Students are expected to complete a concentration consisting of the following:

1. At least 24-25 credits of biology

Includes some laboratories and the required biology sequence (BIO 111, BIO 113, BIO 116) and at least three of the following

Cell Biology

- BIO 309 - Biology of the Cell (4)
- BIO 310 - Biology of the Cell Laboratory (1)

Genetics

- BIO 341 - Genetics (4)
- BIO 342 - Genetics Laboratory (1)

Physiology

- BIO 207 - Human Physiology (4)
- or
- BIO 321 - Medical Physiology (4) and BIO 322 - Physiology Laboratory (1)

Biochemistry

- BIO 325 - Biochemistry I (4) or CHM 453 - Biochemistry I (3)
- BIO 326 - Biochemistry I Laboratory (1) or CHM 457 - Biochemistry Laboratory (3)
- BIO 425 - Biochemistry II (4) or CHM 454 - Biochemistry II (3)

Developmental biology

- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)

Microbiology

- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)

2. Chemistry requirements

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)

3. Physics requirements

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

4. Mathematics requirements

- MTH 141 - Precalculus (4) (or course competency as determined by the Department of Mathematics and Statistics)

Plus one of the following

- MTH 122 - Calculus for the Social Sciences (4)
- MTH 154 - Calculus I (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)
- STA 226 - Applied Probability and Statistics (4)
- STA 228 - Statistical Methods for Biology (4)

Note

Pre-optometry concentration students must take 12 credits of mathematics including one statistics course (STA 225, STA 226, or STA 228). Pre-medical concentration students are advised to take two courses in the behavioral/social sciences (PSY 100 and SOC 100 recommended) and one in ethics (PHL 103 or PHL 104 recommended).

Additional information

The concentration provides the minimum requirements for admission to various medical, osteopathic, dental, optometry and veterinary schools, and provides the necessary background for the science portion of the standardized aptitude tests: medical (MCAT), dental (DAT), optometry (OAT) and veterinary (VCAT or GRE). This concentration does not constitute a major. Students must elect a major from those offered by the university.

Requirements for the major in biomedical sciences, B.S. program

Adviser: Amy Banes-Bercelli (Biological Sciences)

The biomedical sciences major at Oakland University is designed to provide excellent preparation for accomplished undergraduates students who: 1) plan on continuing education towards a medical professional degree (MD, DO, PA, DVM, etc.) or 2) are interested in pursuing a graduate degree (MS, PhD) leading to a research career in human biology. This major integrates a multitude of core disciplines and provides students with a comprehensive foundation in biology and other basic sciences. The coursework also includes requirements in psychology, ethics, and social sciences, which complement the basic sciences for specialization areas in which human interaction is a significant component. A balance between theoretical and practical experience and an emphasis on integrative biology are key elements to the biomedical sciences major. Satisfactory completion of the program requires a minimum grade point average of 3.0 in the core courses.

Admission to major standing

Students will be admitted to the program upon completing BIO 111 and CHM 144 and 147 with a combined grade point average (GPA) of 3.5 and declaring the major.

Course requirements

To earn the degree of Bachelor of Science with a major in biomedical science, students must complete a minimum of 116 credits including the core courses and 10 credits from the list of program elective courses.

Core courses

- BIO 111 - Biology I (4)
- BIO 205 - Human Anatomy (4)
- BIO 206 - Human Anatomy Laboratory (1)
- BIO 207 - Human Physiology (4)
- BIO 307 - Introduction to Human Microbiology (4)
- BIO 308 - Human Microbiology Laboratory (1)
- BIO 309 - Biology of the Cell (4)
- BIO 322 - Physiology Laboratory (1)
- BIO 325 - Biochemistry I (4) or BCM 453 - Biochemistry I (3)
- BIO 423 - Immunology (4)
- BIO 445 - Principles of Evolutionary Medicine (4)
- BIO 473 - Biochemistry of Metabolism and Disease (4) or BCM 454 - Biochemistry II (3)
- BIO 475 - Human Genetics (4)
- BIO 492 - Scientific Inquiry (1)
- BIO 493 - Integrative Pharmacology (4)
- BIO 499 - Integrative Biomedicine and Disease (4)
- MTH 154 - Calculus I (4) (or course competency as determined by the Department of Mathematics and Statistics)
- MTH 155 - Calculus II (4) (or course competency as determined by the Department of Mathematics and Statistics)
- STA 228 - Statistical Methods for Biology (4)
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- PHL 103 - Introduction to Ethics (4) or PHL 318 - Bioethics (4) or HS 450 - Law, Values and Health Care (4)
- PSY 100 - Introduction to Psychology (4)
- PSY 250 - Research Design in Psychology (4)

Program electives (10 credits)

- BCM 490 - Biochemistry Research (1 TO 4)
- BIO 305 - Histology (4)
- BIO 306 - Histology Laboratory (1)

- BIO 321 - Medical Physiology (4)
- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)
- BIO 326 - Biochemistry I Laboratory (1)
- BIO 342 - Genetics Laboratory (1)
- BIO 351 - Neurobiology (4)
- BIO 355 - Neuropharmacology (4)
- BIO 401 - Advanced Human Physiology (4)
- BIO 407 - Cellular Biochemistry (4)
- BIO 409 - Endocrinology (4)
- BIO 417 - Molecular Biology (4)
- BIO 421 - Medical Microbiology (4)
- BIO 427 - Cell Biology of Cancer (4)
- BIO 437 - Virology (4)
- BIO 443 - Functional Genomics and Bioinformatics (4)
- BIO 457 - Advanced Visceral Human Anatomy (4)
- BIO 458 - Advanced Regional Dissection (2)
- BIO 459 - Advanced Musculoskeletal Human Anatomy (4)
- BIO 460 - Neuroanatomy (4)
- BIO 465 - Medical Parasitology (4)
- BIO 490 - Independent Research (1 TO 4)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- PSY 318 - Biological Psychology (4)
- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 345 - Health Psychology (4)
- SOC 222 - Sociology of Mental Illness (4)
- SOC 328 - Sociology of Health and Medicine (4)
- SOC 465 - Sociological Perspectives on Aging (4)
- WRT 381 - Science Writing (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 313 - Nutrition and Culture (4)
- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 401 - Human Pathology (4)
- HS 460 - Nutrient Metabolism (4)
- MLS 416 - Medical Hematology (4)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- 4 credits in a foreign language at the 200 level or higher

Note
Students using this catalog to meet biomedical sciences B.S. major requirements may also use any course subsequently approved as satisfying requirements in the program electives area and published in a later catalog.

Biological Sciences, STEP

Adviser: *Fabia U. Battistuzzi (Biological Sciences*)

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Generally, eligibility for admission to the STEP requires a minimum GPA of 3.00 in both the major and minor, and an overall GPA of at least 2.80. No single major or minor course grade may be below 2.0, and a grade of 3.0 or higher is required in WRT 160 . Second-undergraduate degree candidates completing major and/or minors may be required to complete additional coursework at Oakland University beyond the stated minimums. Students in this program must complete the requirements for a B.A. or B.S. degree in the College of Arts and Sciences and concurrently fulfill the major requirements listed below:

1. One course from the following eight biological areas, as defined by the department and chosen in consultation with the biology adviser

Note that a single course may satisfy more than one area.

Cell biology/biochemistry

- BIO 111 - Biology I (4)
- BIO 309 - Biology of the Cell (4)
- BIO 315 - Fundamentals of Biochemistry (4)
- BIO 323 - Developmental Biology (4)
- BIO 325 - Biochemistry I (4)

Physiology

- BIO 207 - Human Physiology (4)
- BIO 321 - Medical Physiology (4)

Zoology

- BIO 205 - Human Anatomy (4)
- BIO 303 - Field Biology (4)
- BIO 305 - Histology (4)
- BIO 317 - Vertebrate Zoology (5)
- BIO 323 - Developmental Biology (4)
- BIO 353 - Animal Behavior (4)
- BIO 465 - Medical Parasitology (4)

Botany

- BIO 311 - Botany (4)
- BIO 327 - Dendrology (4)
- BIO 373 - Field Botany (4)

Ecology

- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 387 - Evolutionary Biology (4)

Genetics

- BIO 341 - Genetics (4)

Microbiology

- BIO 307 - Introduction to Human Microbiology (4)
- BIO 319 - General Microbiology (4)
- BIO 421 - Medical Microbiology (4)
- BIO 465 - Medical Parasitology (4)

Evolution

- BIO 113 - Biology II (4)
- BIO 387 - Evolutionary Biology (4)

2. A minimum of four biology laboratory courses

(Five laboratory courses are required for the B.S. degree).

3. One course in earth science, chosen from

- ENV 308 - Introduction to Environmental Studies (4)
- ENV 373 - Water Resources (3)
- PHY 106 - Earth Science/Physical Geography (4)

4. One course in science, technology and society, chosen from

- AN 300 - Culture, Society and Technology (4)
- CHM 300 - Chemistry, Society Health (4)
- ENV 308 - Introduction to Environmental Studies (4)
- ENV 312 - Energy and the Environment (4)
- ENV 373 - Water Resources (3)
- PHL 318 - Bioethics (4)

Additional information

A program in STEP must include either a 20-28 credit secondary teaching minor or an integrated science endorsement. Furthermore, STEP biology majors must also complete a sequence of undergraduate course-work in education to include SED 300 (must be completed prior to STEP application) DLL 397, FE 406, RDG 338 and SED 427 (must be completed prior to the final internship semester). Extended study including SE 401, SED 428 and SED 455 is also required. Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Biological Sciences and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

Secondary Teacher Education Program (STEP): Endorsement in Integrated Science

Students pursuing the STEP biology major are eligible to pursue an Integrated Science endorsement. Students who complete both the STEP biology major and the STEP integrated science program will be recommended for certification by Oakland University to teach the following subjects at the secondary level: biology, chemistry, earth science, life science, physical science and physics. This program may be substituted for a secondary teaching minor.

Students must complete the STEP biology major and also have taken the following courses

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- ENV 308 - Introduction to Environmental Studies (4)
- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)
- PHY 104 - Astronomy: The Solar System (4)
- PHY 106 - Earth Science/Physical Geography (4) or GEO 106 - Earth Science/Physical Geography (4)

Additional information

STEP biology majors should note that many of the courses listed above may have already been taken in the process of completing the STEP biology major.

To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in their major and minor coursework and in their education coursework, with no single major or minor course grade below 2.0 and no single education course grade below 2.8.

Second undergraduate degree candidates completing the program may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the STEP biology adviser.

Requirements for the major in bioengineering, B.S. program

Coordinators: *Darrin Hanna (SECS) with Shaleish Lal (Biological Sciences)*

The program in bioengineering, offered jointly by the School of Engineering and Computer Science and the College of Arts and Sciences, leads to the Bachelor of Science degree. It combines training in biology with depth in either computation or engineering. Students should consult with advisers for the majors to be certain they are on track for all requirements.

Course requirements (minimum of 129 total credits)

In order to earn the degree of Bachelor of Science with a major in bioengineering, students must complete a minimum of 129 credits, satisfy the general education requirements (see SECS Degree Requirements) and meet the following requirements:

General education -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Core courses -- 86 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- MTH 254 - Multivariable Calculus (4)
- STA 226 - Applied Probability and Statistics (4)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 201 - Introduction to Organic and Biological Chemistry (4)
- PHY 161 - Fundamentals of Physics I (4)
- PHY 162 - Fundamentals of Physics II (4)
- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- BIO 321 - Medical Physiology (4) (or BIO 309 (4) or BIO 319 (4))
- BIO 325 - Biochemistry I (4)
- BIO 341 - Genetics (4)
- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- EGB 390 - Introduction to Engineering Biology (3)
- EGB 490 - Research Project/Capstone Design (3)

Professional subjects -- 15-16 credits

Professional track 1: bioinformatics

Choose four courses including BIO 443 (4) **and CSE 461** (4)

- CSE 230 - Object-Oriented Computing I (4)
- CSE 361 - Design and Analysis of Algorithms (4)
- BIO 443 - Functional Genomics and Bioinformatics (4)
- CSE 345 - Database Design and Implementation (4)
- CSE 461 - Bioinformatics (4)

Professional track 2: biomedical and biophysical engineering

Choose four courses

- PHY 325 - Biological Physics (4)
- ME 361 - Mechanics of Materials (4)
- ME 456 - Energy Systems Analysis and Design (4) (or PHY 421 (4))
- ME 461 - Analysis and Design of Mechanical Structures (4) (requires ME 361 (4))
- ME 467 - Optical Measurement and Quality Inspection (4)

Professional track 3: computational biology

Required

- MTH 275 - Linear Algebra (4)
- APM 405 - Special Topics (2 or 4)
- BIO 482 - Topics in Evolutionary Biology (3) (or BIO 483 (3))

Electives (choose one)

- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 455 - Intermediate Ordinary Differential Equations (4)

Professional track 4: electronic devices/signal analysis/bio-sensors

- ECE 276 - Electric Circuits (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 484 - Electronic Materials and Devices (4)
- PHY 325 - Biological Physics (4)
- PHY 405 - Special Topics (2 TO 6)
- ECE 566 - Micro- and Nano- Embedded Systems (4)
- CHM 427 - Electrochemistry (3)

Professional track 5: molecular engineering biology

Choose four (Choice must include BIO 319 (4)**, BIO 423** (4) **and BIO 441** (4)

- PHY 325 - Biological Physics (4)
- BIO 309 - Biology of the Cell (4)
- BIO 319 - General Microbiology (4)
- BIO 323 - Developmental Biology (4)
- BIO 423 - Immunology (4)
- BIO 441 - Microbial Biotechnology (4)
- BIO 421 - Medical Microbiology (4)

Performance requirements and additional general education notes

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the courses taken to satisfy the engineering, chemistry, and mathematics and physics requirements. Students in this program are not required to complete the College of Arts and Sciences exploratory requirements, but must complete the general education requirements including capstone and writing intensive courses. In addition, this program requires an average grade of 2.0 in courses taken to satisfy the biology, chemistry, mathematical sciences and engineering requirements.

Requirements for Departmental Honors in Biology and Biomedical Sciences

Departmental honors may be granted to students who have been nominated by a faculty member on the basis of high academic achievement and excellence in either independent research or teaching assistance.

The specific requirements are:

1. 3.20 grade point average (GPA) minimum overall and 3.50 GPA minimum in BIO courses,
2. at least one 400-level BIO lecture course (BIO 405, BIO 490, BIO 495, BIO 499 and BIO 497 do not qualify),
3. excellence in one of the following two service roles:

a) Assisting in teaching a laboratory course(s) either for pay or credit
b) Performing independent laboratory study or serving as a laboratory research assistant.

Pre-Medical Studies: Medicine, Dentistry, Optometry and Veterinary Medicine Concentration

Professional adviser: *Donna Pikula*

Academic Advising: Interested students should consult with the Pre-Medical Advising Office, the College of Arts and Sciences Advising Office or a Department of Biological Sciences faculty adviser for counseling and assistance in planning their academic programs.

Committee: Gennie Anderson (School of Health Sciences), Amy Banes-Berceli (Biological Sciences), Sharise Calhoun (Admissions), Ashley Cerku (Writing Center), Shannon Esselink (College of Arts and Sciences Advising), Christina Grabowski (School of Medicine), Sarah Hosch (Biological ciences), Anne Hitt (College of Arts and Sciences), Nessan Kerrigan (Chemistry), Kristin Landis-Piwowar (School of Health Sciences), Amanda Lynch (School of Health Sciences), Denise McConkey (Career Services), Sandra Powell (Honors College), Jonathan Reusch (Career Services), Brad Roth (Physics), Ann Selva (College of Arts and Sciences), Mohammad Siadat (Computer Science and Engineering), Michelle Southward (School of Health Sciences), Kristin Thompson (School of Health Sciences), Keith Williams (Psychology)

The concentration in pre-medical studies is intended for students who wish to pursue careers in medicine, dentistry, optometry or veterinary medicine. The Bachelor of Science degree with a major in biology provides students with all the requirements for a concentration in pre-medical studies. Students in the Bachelor of Arts degree program will need to complete two semesters of organic chemistry and laboratory in addition to their other science requirements. Students are expected to complete a concentration consisting of the following:

1. At least 24-25 credits of biology

Includes some laboratories and the required biology sequence (BIO 111, BIO 113, BIO 116) and at least three of the following:

Cell Biology

- BIO 309 - Biology of the Cell (4)
- BIO 310 - Biology of the Cell Laboratory (1)

Genetics

- BIO 341 - Genetics (4)
- BIO 342 - Genetics Laboratory (1)

Physiology

- BIO 207 - Human Physiology (4)
  or
- BIO 321 - Medical Physiology (4) and BIO 322 - Physiology Laboratory (1)

Biochemistry

- BIO 325 - Biochemistry I (4) or CHM 453 - Biochemistry I (3)
- BIO 326 - Biochemistry I Laboratory (1) or CHM 457 - Biochemistry Laboratory (3)
- BIO 425 - Biochemistry II (4) or CHM 454 - Biochemistry II (3)

Developmental biology

- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)

Microbiology

- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)

2.Chemistry requirements

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)

3.Physics requirements

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

4.Mathematics requirements

- MTH 141 - Precalculus (4) (or course competency as determined by the Department of Mathematics and Statistics)

Plus one of the following

- MTH 122 - Calculus for the Social Sciences (4)
- MTH 154 - Calculus I (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)
- STA 226 - Applied Probability and Statistics (4)
- STA 228 - Statistical Methods for Biology (4)

Note

Pre-optometry concentration students must take 12 credits of mathematics including one statistics course (STA 225, STA 226, or STA 228). Pre-medical concentration students are advised to take two courses in the behavioral/social sciences (PSY 100 and SOC 100 recommended) and one in ethics (PHL 103 or PHL 104 recommended).

Additional information

The concentration provides the minimum requirements for admission to various medical, osteopathic, dental, optometry and veterinary schools, and provides the necessary background for the science portion of the standardized aptitude tests: medical (MCAT), dental (DAT), optometry (OAT) and veterinary (VCAT or GRE). This concentration does not constitute a major. Students must elect a major from those offered by the university.

Requirements for the liberal arts minor in biology

Students in other departments who wish to minor in biology must take a minimum of 20 credits in biology, including the following courses. Students majoring in other life science areas should read the restrictions on dual use of courses to satisfy both major and minor requirements.

BIO 101, 104, 110, 121 and 300 do not count toward the biology minor.

1. Required courses

- BIO 111 - Biology I **(4)**
- BIO 113 - Biology II **(4)**
- BIO 116 - Biology Laboratory (1)

2. At least 8 credits in BIO courses numbered 301 or higher

Requirements for the secondary teaching minor in biology

A minimum of 20 credits in biology is required for the secondary teaching minor in biology.
BIO 101, BIO 104, BIO 110, BIO 121 and BIO 300 may not be counted toward this requirement.

1. Required courses

- BIO 111 - Biology I **(4)**
- BIO 113 - Biology II **(4)**
- BIO 116 - Biology Laboratory **(1)**

2. One course each from the following categories

a. Molecular/cellular biology

- BIO 309 - Biology of the Cell **(4)**
- BIO 315 - Fundamentals of Biochemistry **(4)**
- BIO 321 - Medical Physiology **(4)**
- BIO 323 - Developmental Biology **(4)**
- BIO 325 - Biochemistry I **(4)**
- BIO 341 - Genetics **(4)**
- BIO 351 - Neurobiology **(4)**

b. Organismic biology

- BIO 205 - Human Anatomy **(4)**
- BIO 207 - Human Physiology **(4)**
- BIO 209 - Comparative Physiology **(4)**
- BIO 211 - Plant Physiology **(4)**
- BIO 311 - Botany **(4)**
- BIO 319 - General Microbiology **(4)**
- BIO 327 - Dendrology **(4)**
- BIO 353 - Animal Behavior **(4)**
- BIO 373 - Field Botany **(4)**

c. Evolutionary/ecological biology

- BIO 301 - Ecology **(5)**
- BIO 303 - Field Biology **(4)**
- BIO 317 - Vertebrate Zoology **(5)**
- BIO 387 - Evolutionary Biology **(4)**

3. Required course

- SED 427 - ST: Teaching Secondary in the Minor Methods **(3 OR 4)**

Additional information

Non-science majors must complete an additional four credits in chemistry for a total of 24 credits for this minor. Students are also expected to have pre-calculus mathematics.

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Post-baccalaureate candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the departmental adviser.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

BIO 101 - Foundations of Modern Biology (4)
Principles of biochemistry, energy transformation, metabolism, cell division, and heredity. Emphasizing problem-solving skills and the background necessary for success in more advanced biology courses. Especially suited for students majoring in science or allied health programs needing additional preparation prior to BIO 111. Not for major or minor credit in biology.

BIO 104 - Human Biology (4)
Introduction to human biology with emphasis on human anatomy and physiology. Topics include cell biology, skeletal, muscular, digestive, cardiovascular, neural, hormonal and reproductive systems. Offered fall and winter semesters. Course does not count toward biology majors or minors. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

BIO 110 - Life on Earth (4)
A survey course on the history of nature. The evolutionary emergence of plant and animal life from unicellular to multicellular organisms and eventually to humans is presented through lectures, text readings and films. Offered fall and winter semesters. Course does not count toward biology majors or minors. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

BIO 111 - Biology I (4)
Introduction to cellular and molecular biology, enzymology, metabolism, genetics, cell division. One year of high school chemistry is strongly recommended. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

BIO 113 - Biology II (4)
Introduction to the structure and function of plants and animals; nutrient acquisition, gas exchange, internal transport, excretion, chemical and nervous control, reproduction, behavior, ecology, evolution, and a synopsis of the major phyla. Offered fall and winter semesters. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): BIO 111 recommended.

BIO 116 - Biology Laboratory (1)
Laboratory and field experience emphasizing scientific method, scientific writing, Mendelian genetics, vertebrate anatomy and animal and plant diversity. Offered fall and winter semester.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 111 or BIO 113 with a grade of 2.0 or higher.

BIO 121 - Clinical Anatomy and Physiology (5)
Basic human anatomy and physiology with clinical emphasis, specifically for pre-nursing students. Lectures are closely tied to laboratory activities. Computer simulations of cadaver dissections are used to teach and test anatomy. Course does not count toward biology majors or minors.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 205 - Human Anatomy (4)
The integration of organs into systems and systems into the organism. Selected aspects of developmental, comparative and microanatomy also will be discussed. Relevant to students in health sciences, biological science and liberal arts studies. Offered fall and winter semesters.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 206 - Human Anatomy Laboratory (1)
Identification of the musculoskeletal system as well as other major organ systems using human cadavers.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 205 with a grade of 2.0 or higher.

BIO 207 - Human Physiology (4)
Detailed study of general physiological principles and mechanisms with emphasis on systemic physiology. Normal physiology of individual organ systems will be explored, with stress on the role each plays in the human homeostatic balance. Offered fall and winter semesters.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 209 - Comparative Physiology (4)
The physiology of organ systems in various animal groups. Examination and comparison of evolutionarily conserved and diversified components. Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 211 - Plant Physiology (4)
Physiological processes that occur during the growth and development of plants, focusing on water relations, transport, mineral nutrition, regulation of photosynthesis and respiration, seed germination, and plant growth in response to hormones and environmental conditions.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 300 - Biology and Society (4)
The major concepts of modern biology that would serve as a foundation for the well-educated nonscientist, including evolutionary biology, molecular and cellular biology, genetic and medical interventions, the biological bases of behavior and social organization, and the effects of biological and chemical pollutants. Course does not count toward the biology major or minor. Satisfies the university general education requirement in the natural science and technology knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or in the major, not both. Prerequisite(s) for writing intensive: completion of the university writing foundation requirement.

BIO 301 – Ecology (5)
Basic ecological concepts, energy and materials flow, growth and regulation of populations, community interactions, chemical ecology and environmental biology. Includes laboratory experience. Offered fall semester.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 303 - Field Biology (4)
An ecological and taxonomic study of the fauna of southeastern Michigan. Aims include competence in use of illustrated handbooks and keys, and skills in collecting, preserving and identifying. Offered summer semester both first and second sessions.
Prerequisite(s): BIO 111, 113, and 116, each with a grade of 2.0 or higher.

BIO 305 – Histology (4)
Structural organization of vertebrate tissues and organs in relation to cell and tissue functions. Offered fall semester.
Prerequisite(s): BIO 111, 113 with a grade of 2.0 or higher.

BIO 306 - Histology Laboratory (1)
Microscopic examination and identification of vertebrate tissues and organs. Preparation of histological slides.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 305 with a grade of 2.0 or higher.

BIO 307 - Introduction to Human Microbiology (4)
Introduction to the biology of microorganisms emphasizing the infectious diseases they cause and their control. Bacterial, mycotic, protozoan and viral infections; immunology; epidemiology; pathogenic mechanisms; chemotherapy; microbial genetics; microbial growth; and microbial physiology. Required of students in the nursing program. Not open to students who have taken BIO 319.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 308 - Human Microbiology Laboratory (1)
Introduction to techniques used for growing, isolating, and handling microbes. A microscopic examination and identification of prokaryotic and eukaryotic organisms including pathogens. Course restricted to biomedical sciences majors.Prerequisite(s) or Corequisite(s): BIO 307 (if prerequisite, with a grade of 2.0 or higher.)

BIO 309 - Biology of the Cell (4)
Introduction to the biology of the cell. Includes structure and function of cell organelles and physiological processes at the cellular and molecular levels. Prerequisite(s): BIO 111; BIO 113 or 207; CHM 144 and 147, or CHM 157, each with a grade of 2.0 or higher.

BIO 310 - Biology of the Cell Laboratory (1)
Laboratory experience in cellular biology.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 309 with a grade of 2.0 or higher.

BIO 311 - Botany (4)
Plant biology including topics on gross and microscopic structure, physiological processes, reproduction and development. Diversity within the plant kingdom and evolutionary history are also discussed.
Prerequisite(s): BIO 111, 113, 116, each with a grade of 2.0 or higher.

BIO 315 - Fundamentals of Biochemistry (4)
Structure, assembly, and function of biomolecules and subcellular components; enzyme catalysis and regulation; generation of metabolic energy; electron transport and photosynthesis, metabolism of carbohydrates, amino acids and proteins, lipids, and nucleic acids; nutrition and health implications.
Prerequisite(s): BIO 111, and CHM 201 or 234, each with a grade of 2.0 or higher.

BIO 317 - Vertebrate Zoology (**5)**
Introduction to evolution, biology and classification of vertebrates, including fish, amphibians, reptiles, birds and mammals. Emphasis on a comparative approach to examining the anatomy, physiology, evolution, ecology, behavior, and life history aspects of vertebrates. Lecture focuses on a comparative analysis of all vertebrate groups, lab exercises separately treat the major groups.Prerequisite(s): BIO 111, 113, 116, each with a grade of 2.0 or higher.

BIO 319 - General Microbiology (4)
Concepts include microbial metabolism and physiology, genetics and genomics, diversity and evolution, growth control and aseptic techniques, host-parasite relationships, and survey of human bacterial and viral pathogens. Emerging techniques and applications in molecular biology and genetic engineering will also be considered as they relate to microbiology. Not open to students who have taken BIO 307. Offered fall and winter semesters.
Prerequisite(s): BIO 315, BIO 325, BCM 453, or CHM 453 with a grade of 2.0 or higher.

BIO 320 - General Microbiology Laboratory (1)
Introduction to techniques used for growing, isolating, and handling microbes, as well as a survey of traditional and molecular approaches to microbe identification and analysis.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 319 (if prerequisite, with a grade of 2.0 or higher).

BIO 321 - Medical Physiology (4)
Detailed study of physiological principles and the functioning of the various organ systems. Establishes a foundation for describing the mechanisms of action underlying human health and disease.
Prerequisite(s): BIO 315 or 325, or BCM 453, or CHM 453, with a grade of 2.0 or higher.

BIO 322 - Physiology Laboratory (1)
Laboratory exercises illustrating the principles of human physiology through experimental measurements and computer simulations.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 207 or 321 with a grade of 2.0 or higher.

BIO 323 - Developmental Biology (4)
An examination of mechanisms regulating the development of various organisms. Emphasis on the cellular and molecular controls that govern gametogenesis, fertilization, tissue formation, cellular interactions and gene activity. Offered alternate winter semesters.
Prerequisite(s): BIO 309 or 341 with a grade of 2.0 or higher.

BIO 324 - Developmental Biology Laboratory **(1)**
A series of observations and experimental exercises on a variety of organisms designed to expose the student to basic patterns of development, embryonic structures and techniques to analyze developmental processes.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 323 (if prerequisite, with a grade of 2.0 or higher).

BIO 325 - Biochemistry I (4)
Science-intensive study of the structure, function, and isolation of biomolecules and subcellular components; enzyme catalysis and regulation; principles of metabolism, generation of metabolic energy by glycolysis, Krebs' cycle and oxidative phosphorylation; and molecular approaches in biological research.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.
Pre/Corequisite(s): Prerequisites or corequisites: CHM 234 (if prerequisite, with a grade of 2.0 or higher).

BIO 326 - Biochemistry I Laboratory (1)
Cellular extraction and purification of enzymes and enzymes kinetics. Analytical and quantitative methods for characterization of protein structure and activity.
Prerequisite(s): BIO 116 with a grade of 2.0 or higher.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 325 (if prerequisite, with a grade of 2.0 or higher).

BIO 327 – Dendrology (4)
The study of trees and shrubs; their identification, biology and ecology and the importance of woody plants to people. Includes laboratory experience. Offered in alternate fall semesters.
Prerequisite(s): BIO 111, 113, 116, each with a grade of 2.0 or higher.

BIO 329 - Principles of Pharmacology (4)
Introduction to the general principles of pharmacology. Includes principles of drug action, drug metabolism, and a review of major classes of pharmaceuticals.
Prerequisite(s): BIO 205 and 207; or BIO 321 and 315; or BIO 325, BCM 453, or CHM 453; each with a grade of 2.0 or higher.

BIO 330 - Biomaterials Approaches in Anatomy (4)
Theoretical design of prosthesis, implants, and organs. Basic principles of engineering and materials sciences will be applied to histology and anatomy of the human body. Prerequisite(s): BIO 205 and BIO 206, each with a grade of 2.0 or higher.

BIO 331 - Organic Farming (4)
Fundamental theory and practices integral to organic farming on a small scale. Field and lecture course integrates problem-solving ecology, botany, entomology, microbiology, chemistry, and more. Field sites include OU Campus Student Organic Farm, community gardens, and field trips to working organic farms. Offered annually in full summer semester.
Prerequisite(s): BIO 104, BIO 111, or BIO 113 with a grade of 2.0 or higher, or permission of instructor.
Corequisite(s): BIO 332.

BIO 332 - Organic Farming Laboratory (1)
Laboratory and field studies of organic farming theory and applied practices. Field sites include OU Student Organic Farm and certain community gardens, depending on the season. May be taken three times, with each registration being in different semesters (summer, fall, winter).
Pre/Corequisite(s): Prerequisites or corequisites: BIO 331 in summer term only; if prerequisite, with a grade of 2.0 or higher.

BIO 341 – Genetics (4)
Fundamentals of classical and molecular genetics. Selected topics in human genetics, microbial genetics, biochemical genetics, molecular biology, cytogenetics and genomics. Offered fall and winter semesters.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 342 - Genetics Laboratory (1)
Laboratory experience in genetics, including elementary experiments in Mendelian genetics and molecular genetics. Principles of hypothesis testing and data analysis.
Prerequisite(s): BIO 111 and 116, each with a grade of 2.0 or higher.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 341 (if prerequisite, with a grade of 2.0 or higher).

BIO 351 – Neurobiology (4)
Properties of individual nerve cells and small groups of nerve cells involved in information processing. Emphasis is placed on the cellular and molecular basis of excitability and synaptic transmission, membrane receptor systems and signaling, neuronal plasticity, and sensory and motor functions in relation to neurological disorders. Offered winter semester.Prerequisite(s): BIO 111 and 113, and CHM 145 and 148 (or CHM 158); each with a grade of 2.0 or higher.

BIO 353 - Animal Behavior (4)
The genetics, physiology, ecology and evolution of animal behavior. Emphasis is on social behavior, especially the behavior of social insects. Offered fall semester.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 354 - Animal Behavior Laboratory (1)
An introduction to the study of animal behavior in the field and in the laboratory. Topics will include experimental design, data analysis, and writing in the scientific format.
Prerequisite(s): BIO 116 (with a grade of 2.0 or higher).

BIO 355 – Neuropharmacology (4)
Examination of drugs that affect nervous tissue. Includes basic principles and fundamentals of pharmacological actions on neurons and their synapses in relation to autonomic function, control of movement, mood and emotion, addictive disorders, higher cognitive function and psychosis, sleep arousal, pain, memory, dementias, and seizures and stroke.
Prerequisite(s): BIO 207 or 321, and CHM 234; and BCM 325 or BCM 453 or CHM 453 with a grade of 2.0 or higher.

BIO 361 - Permaculture(4)
Sustainable landscape planning based on natural and indigenous systems for food/fiber/fuel production that can be applied to home gardens and entire communities. Interdisciplinary hands-on problem-solving and design in field studies on campus. Course includes field trips and service-learning/community engagement.Prerequisite(s): BIO 104, BIO 111, or BIO 113, with a grade of 2.0 or higher or permission of instructor.

BIO 362 - Permaculture Laboratory (**1 OR 2)**
Independent project design or field study to accompany or follow BIO 361. May be taken any semester.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 361 with a grade of 2.0 or higher and permission of instructor.

BIO 373 - Field Botany (4)
A local flora course in identifying vascular plants occurring naturally in Michigan. Emphasis is on flowering plants, although ferns and coniferous species are also treated. Includes field trips to representative natural areas in southeast Michigan. Offered summer semester, first session.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 377 - Marine Biology (4)
Overview of the ocean environment with emphasis on marine organisms. Marine communities and adaptations from the intertidal zone to the abyssal plains will be presented.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 387 - Evolutionary Biology (4)
Exploration of the processes of evolution and their past and current influence on organisms of today. Topics include origin of variability, natural selection, differentiation of populations, speciation, phylogenetic concepts, evolutionary ecology and sociobiology. BIO 341 recommended.
Prerequisite(s): BIO 111 and 113, each with a grade of 2.0 or higher.

BIO 399 - Occupational Experience in Biology (2 TO 4)
Occupational experience in biology with faculty supervision that incorporates student performance in a professional setting. May not be repeated for credit.
Prerequisite(s): junior/senior standing. 16 credits in biology of which 8 must be at the 300-400 level and permission of instructor.

BIO 401 - Advanced Human Physiology (4)
Lectures and discussion emphasizing the experimental basis and current techniques for the study of human systems. Topics include: neuromuscular, cardiovascular, respiratory, and renal physiology.
Prerequisite(s): BIO 207 or 321 with a grade of 2.0 or higher.

BIO 405 - Directed Readings in Biology (1 TO 4)
Term paper based on library research of a current research-oriented biological topic. May be taken more than once. Satisfies the university general education requirement for a writing intensive course in the major when taken for 3 or 4 credits. Prerequisite for writing requirement: completion of the university writing foundation requirement.
Prerequisite(s): written agreement with a biology faculty supervisor.

BIO 407 - Cellular Biochemistry (4)
Advanced discussion of cellular control mechanisms emphasizing recent developments in the biochemistry of proteins and nucleic acids. Offered fall semester.
Prerequisite(s): BIO 325 or CHM 453 or BCM 453 with a grade of 2.0 or higher.

BIO 409 – Endocrinology (4)
Endocrine systems, mechanisms of hormone action, interactions among hormones, the roles of hormones in growth, differentiation, and reproduction; tumor suppressor genes and oncogenes. Emphasis will be placed on human endocrine disorders and their clinical significance.
Prerequisite(s): BIO 207 or 321 with a grade of 2.0 or higher.

BIO 413 - Advanced Topics in Cell Physiology (4)
Discussion and lecture course offered by faculty members with research interests in cell physiology. Topics to be announced.

BIO 417 - Molecular Biology (4)
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.
Prerequisite(s): BIO 341 and either BIO 325 or CHM 453 or BCM 453, each with a grade of 2.0 or higher.

BIO 418 - Molecular Biology Laboratory (2)
Basic techniques in molecular biology: isolation and characterization of DNA and RNA, cloning, restriction analysis, nucleic acid hybridization and recombinant DNA techniques.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 417 (if prerequisite, with a grade of 2.0 or higher).

BIO 419 - Advanced Genetics (4)
A continuation of BIO 341. 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.
Prerequisite(s): BIO 341 with a grade of 2.0 or higher and either STA 225, STA 226, or STA 228.

BIO 421 - Medical Microbiology (4)
Bacterial and viral human pathogens, emphasizing their etiology, physiology, pathogenesis, epidemiology, control and diagnosis.
Prerequisite(s): BIO 325 or CHM 453 or BCM 453 with a grade of 2.0 or higher.

BIO 423 – Immunology (4)
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.
Prerequisite(s): BIO 341 or 325 or CHM 453 or BCM 453 with a grade of 2.0 or higher.

BIO 425 - Biochemistry II (4)
A continuation of BIO 325 using the same textbook. Topics include photosynthesis, metabolism of lipids and nitrogen-containing compounds, biochemical mechanisms of hormone action, integration and control of cell metabolism, biochemistry of nucleic acids, and mechanisms of gene transcription and protein synthesis.
Prerequisite(s): BIO 325 or CHM 453 or BCM 453 with a grade of 2.0 or higher.

BIO 427 - Cell Biology of Cancer (4)
Introduction to cancer from signal transduction pathways that regulate cell proliferation, apoptosis, adhesion and migration. Offered winter semester.
Prerequisite(s): BIO 309 with a grade of 2.0 or higher.

BIO 429 - Stem Cell Biology (4)
Comprehensive overview of stem cells and their potential in 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.
Prerequisite(s): BIO 111 with a grade of 2.0 or higher.

BIO 430 - Research Associate Program I (4)
Structured research learning experience for pre-medical students; basic concepts, topics of clinical research, and structure of clinical research; clinical epidemiology, evidence-based medicine, data analysis, relevant medical pathophysiology, diagnostics and therapeutics.
Prerequisite(s): Junior standing.

BIO 432 - Research Associate Program II (1 TO 4)
Structured research learning experience for pre-medical students, advanced concepts, topics of clinical research, and structure for clinical research; clinical epidemiology, evidence-based medicine, data analysis, relevant medical pathophysiology, diagnostics and therapeutics. Prerequisite(s): BIO 430.

BIO 437 – Virology (4)
Fundamentals of virology including classification of bacteriophages, plant and animal viruses, viral multiplication, and pathogenesis.
Prerequisite(s): BIO 309, 319, or 325 or CHM 453 or BCM 453 with a grade of 2.0 or higher.

BIO 441 - Microbial Biotechnology (4)
Microbial genetics, emphasizing the basic aspects of bacteriophage and plasmid genetics applied to biotechnology.
Prerequisite(s): BIO 341 or BIO 319 with a grade of 2.0 or higher.

BIO 443 - Functional Genomics and Bioinformatics (4)
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.
Prerequisite(s): BIO 341.

BIO 444 - Functional Genomics and Bioinformatics Laboratory (1)
Explores molecular biology, genomics and bioinformatics techniques useful in study of genomes and proteomes.
Pre/Corequisite(s): Prerequisites or corequisites: BIO 443 (if prerequisite, with a grade of 2.0 or higher).

BIO 445 - Principles of Evolutionary Medicine(4)
Introduction to the principles of evolutionary biology and their application to understanding human disease and medically relevant topics including the development of antibiotic resistance in pathogenic bacteria and an understanding of how viral evolution impacts vaccine production. Course restricted to biomedical sciences majors.Prerequisite(s): BIO 111 and BIO 341 or BIO 475, each with a grade of 2.0 or higher.

BIO 451 - Research Forum (1)
A forum for students to present their research in a seminar environment and to discuss problems and potential solutions with other students and department faculty. May be repeated for up to 4 credits. Graded S/U.
Prerequisite(s): Permission of faculty supervisor.

BIO 457 - Advanced Visceral Human Anatomy (4)
Advanced study of the human body systems with emphasis on the thorax, abdomen and pelvic regions, including organ structure, blood supply, innervation and lymphatics. Clinical correlations and applications using human cadavers.
Prerequisite(s): BIO 205 with a grade of 2.0 or higher or permission of instructor.

BIO 458 - Advanced Regional Dissection (2)
Active full body regional dissection under the Socratic tradition. Multiple systems will be explored and discussed with regard to relationships, form, function, and disease. Students will perform regional dissections in teams under rotating peer leadership and one individual dissection of each student's choice will be graded and demonstrated to peers. Prerequisite(s): BIO 205 with a grade of 2.0 or higher.

BIO 459 - Advanced Musculoskeletal Human Anatomy (4)
Advanced study of the human body systems with emphasis on the musculoskeletal system including the back, upper limb and lower limb osteology, musculature, blood supply, innervation, and connective tissue structures using human cadaver dissections.
Prerequisite(s): BIO 205 with a grade of 2.0 or higher or permission of instructor.

BIO 460 – Neuroanatomy (4)
Exploration of central and peripheral nervous systems with associated structures with respect to their morphology, relationships, development, and function. Pathways within the brain and spinal cord and the integration of these functions in motor, sensory and autonomic activity. Investigation of certain lesions and their clinical significance via hands-on interactive activities and lectures.
Prerequisite(s): BIO 205 with a grade of 2.0 or higher or permission of instructor.

BIO 461 - Neuroanatomy Laboratory (1)
Laboratory experience in neuroanatomy. Identification of basic neuroanatomical structures of the human.
Corequisite(s): BIO 460 with a grade of 2.0 or higher.

BIO 465 - Medical Parasitology (4)
Medically important protozoan, helminth, and arthropod parasites, including their morphology, biology, pathogenesis, clinical manifestations, immunology, epidemiology, and control.
Prerequisite(s): BIO 111, 113, and 116, each with a grade of 2.0 or higher.
Corequisite(s): BIO 466.

BIO 466 - Medical Parasitology Laboratory (1)
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. To be taken with BIO 465.
Prerequisite(s): BIO 111, 113, and 116, each with a grade of 2.0 or higher.Corequisite(s) : BIO 465.

BIO 471 - Stream Ecology (3)
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.
Prerequisite(s): BIO 113 with a grade of 2.0 or higher; BIO 301 recommended.

BIO 473 - Biochemistry of Metabolism and Disease (4)
Biochemistry of the metabolic processes and interrelations existing in healthy and disease states in human systems. Covers both metabolic disorders as well as insights to clinical biochemistry related to cancer, myocardial infarction, atherosclerosis and other diseases. Course restricted to biomedical science majors. Prerequisite(s): BIO 207 or BIO 321; BIO 325, CHM 453 or BCM 453 each with a grade of 2.0 or higher.

BIO 474 - Tropical Field Ecology (3)
Field-based introduction to tropical ecology with an emphasis on experiencing different types of terrestrial and aquatic ecosystems.
Prerequisite(s): BIO 301 with a grade of 2.0 or higher; recommended and instructor permission.

BIO 475 - Human Genetics (4)
Introduction to classical and molecular inheritance, genetic processes of humans with particular emphasis on human genetic diseases. Topics include gene mapping, genetic diseases, molecular screening. Course restricted to biomedical sciences majors. Prerequisite(s): BIO 207 or 321 with a grade of 2.0 or higher.

BIO 481 - Topics in Physiological Ecology (3)
Physiological responses of organisms to their environment including plant/herbivore interactions, adaptations of desert animals, allelopathy, energy cost of animal activities, and communication on an organismal level. Offered alternate winter semesters.
Prerequisite(s): BIO 207, 301 or 321 with a grade of 2.0 or higher.

BIO 482 - Topics in Evolutionary Biology (3)
Advanced topics in evolutionary biology, including evolutionary patterns, the nature of selection, adaptation, macroevolution, the application of molecular biology to evolution and philosophical issues of evolution. Offered alternate fall semesters.
Prerequisite(s): BIO 301, BIO 353, and BIO 387 with a grade of 2.0 or higher; or permission of instructor.

BIO 483 - Topics in Community and Population Biology (3)
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. Offered alternate fall semesters.
Prerequisite(s): BIO 301 or 387 with a grade of 2.0 or higher.

BIO 484 - Topics in Behavioral Biology (3)
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.
Prerequisite(s): BIO 353 with a grade of 2.0 or higher.

BIO 487 - Science of Vision (3)
In-depth study of the tissues of the eye. Topics include visual transduction, light and dark adaptation, color vision, lens physiology and cataract, cornea, glaucoma, inherited retinal diseases, diabetic retinopathy, physiological optics, and regulation of gene expression in ocular development.
Prerequisite(s): BIO 207 or BIO 321 or BIO 351 with a grade of 2.0 or higher.

BIO 490 - Independent Research (1 TO 4)
Directed undergraduate research in laboratory, field or theoretical biology. Should be initiated before or during the junior year. May be taken for a numeric grade (research paper required) by written arrangement with a biology faculty supervisor for a maximum of 4 credits. May be taken for an S/U grade (no paper required) by written arrangement with a biology supervisor for a maximum of 8 credits. BIO 490 counts as one laboratory course for the major.
Prerequisite(s): written agreement with a biology faculty supervisor.

BIO 491 - Selected Topics in Biology (1 TO 5)
Advanced topics in a specialized area of biological sciences. The topics and prerequisites may vary. May be repeated for additional credit.

BIO 492 - Scientific Inquiry (1)
Integrative laboratory based experience focused on a single medically relevant topic. Exercises will range from basic cell/biochemical to virtual simulations of physiological processes to data mining of available biomedical databases through societal impacts. Course restricted to biomedical sciences majors.

BIO 493 - Integrative Pharmacology (4)
Introduction to human pharmacology with emphasis on an integrative approach to encompass clinical application, physiological functions, pharmacological principles, biochemistry of actions. Offered fall semester. Course restricted to biomedical science majors.
Prerequisite(s): BIO 207 or 321, and BIO 325 or CHM 453 or BCM 453, each with a grade of 2.0 or higher.

BIO 495 - Scientific Inquiry and Communication (4)
Synthesis of several sub disciplines in biological sciences using technical reports, articles in the popular press and on the Internet. Integration of life sciences with history, fine arts, other cultures, social and ethical issues addressed through a variety of methods of inquiry with emphasis on communication skills and critical thinking. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience. Prerequisite(s): senior standing.

BIO 497 - Apprentice College Teaching (2)
Assisting in presenting a course, usually a laboratory course, to undergraduates. May be taken more than once. Cannot be counted as a biology laboratory course.
Prerequisite(s): written agreement with a biology faculty supervisor.

BIO 499 - Integrative Biomedicine and Disease (4)
Investigation of clinically relevant diseases using an integration of biological sub disciplines. Technical reports, journal articles, and articles in the popular press, historical records, and internet resources will be used to investigate treatment of pathological conditions, cultural effects of diseases, historical impacts and ethics of managing different diseases. Oral and written communication and critical thinking skills will be emphasized. Course restricted to biomedical sciences majors. Offered winter semester. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite(s): completion of the university writing foundation requirement.
Prerequisite(s): BIO 493 with a grade of 2.0 or higher.

Department of Chemistry

260 MATHEMATICS AND SCIENCE CENTER
(248) 370-2320
FAX: (248) 370-2321
Department Website: http://wwp.oakland.edu/chemistry/

Chairperson: *Roman Dembinski*

Distinguished professor emeritus*: Paul Tomboulian*

Professors emeriti: *Gottfried Brieger, Denis M. Callewaert, Dagmar Cronn, Julien Gendell, Kenneth M. Harmon, Steven R. Miller, Kathleen H. Moore, R. Craig Taylor*

Distinguished professor: *Michael D. Sevilla*

Professors: *Sitaramayya Ari, Maria Szczesniak Bryant, Arthur W. Bull, Ferman Chavez, Roman Dembinski, John V. Seeley, Xiangqun Zeng*

Associate professors: *Nessan J. Kerrigan, Linda Schweitzer*

Assistant professors: *Sanela Martic, David Szlag, Evan Trivedi, Marta Wloch*

Adjunct professors: *David Becker, Grzegorz Chalasinski, Anna C. Ettinger, Om Goel, Gholam-Abbas Nazri, D. David Newlin, Fazlul Sarkar, Joseph R. Stetter*

Adjunct associate professors: *Klaus Friedrich, James S. Dusenbury, Stacy K. Seeley*

Adjunct assistant professors*: Janet Bennett, Gerald G. Compton, Naomi Eliezer, Jennifer Tillinger*

Lecturers: *Marcella Colling, Charlene Hayden, Douglas Herzog, Gaylon Jolley, James Leidel, Thomas Ott, Hari Prasad, Mark Richardson, Wendy Wilson*

Chief adviser*: Jennifer Tillinger*

Oakland University's chemistry programs offer students the laboratories and equipment typically found at larger universities while retaining strong emphasis on the undergraduate education and informal student-faculty relations characteristic of smaller liberal arts colleges. Additionally, research opportunities are available to qualified undergraduates.

The Department of Chemistry provides highly professional chemistry programs, as well as the liberal arts dedication to developing the highest intellectual and creative potential of its students. The department offers programs of study leading to Bachelor of Arts, Bachelor of Science and Master of Science degrees in chemistry and a Doctor of Philosophy degree in biomedical sciences with specialization in health and environmental chemistry.

High school students intending to major in chemistry should refer to the Admissions section of the catalog for specific preparation requirements.

Planning a Program in Chemistry

Curricula leading to a major in chemistry are quite structured, since knowledge is developed cumulatively in a four-year sequence. This leads to a fairly prescribed order of course presentation with a number of specific course requirements. Students interested in pursuing a program of study in chemistry should consult with a departmental adviser and file a program plan as early as possible in their college career.

Admission to Major Standing

To be eligible for a degree in chemistry, students should be admitted to major standing by the department at least three semesters before graduation. Students must consult with the chemistry department chief adviser and file an application for admission to major standing, which includes a curriculum plan, during the term in which they first take a 300-400 level chemistry course. This procedure is designed to ensure that an appropriate plan of study is completed by graduation.

Applications for major standing in chemistry will be approved after completion of CHM 144/147, CHM 145/148, CHM 220, CHM 234-CHM 235, CHM 237, PHY 151/110 and MTH 154 with a grade point average of 2.00 or better.

Coursework more than 10 years old is subject to reevaluation by the department. An examination may be required to demonstrate proficiency in areas covered by such courses.

Requirements for the liberal arts major in chemistry, B.A. program

This curriculum is for students who wish to incorporate a science major into a broader liberal arts program or who desire a foundation in chemistry as a basis for study in chemical physics, medicine and related fields, environmental studies, and technical-legal or technical-business careers. Students interested in sales or management careers in the chemical industry might consider taking the minor in general business offered by the School of Business Administration. Note that either CHM 491 or CHM 457/BCM 457 - Biochemistry Laboratory satisfies the university general education requirement for the capstone course.

To earn a Bachelor of Arts degree with a major in chemistry, students must be approved for major standing and must complete the core curriculum, which requires a minimum of 42 credits in chemistry and 16 credits of co-requisite courses, including:

Core curriculum - 44 credits

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 220 - Introduction to Computational Chemistry (2)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- CHM 325 - Analytical Chemistry (4)
- CHM 342 - Physical Chemistry I (4)
- CHM 343 - Physical Chemistry II (4)
- CHM 348 - Physical Chemistry Laboratory (2)
- CHM 362 - Descriptive Inorganic Chemistry (3)
- CHM 400 - Seminar (0) (two semesters)
- CHM 438 - Inorganic/Organic Laboratory (2)
- CHM 453 - Biochemistry I (3) or BCM 453 - Biochemistry I (3)

Corequisite courses - 18 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)

Recommended elective

- CSE 130 - Introduction to Computer Programming (4)

Requirements for the Bachelor of Science degree with a major in chemistry (ACS certified)

The Bachelor of Science degree with a major in chemistry consists of the core curriculum and corequisite courses plus a set of advanced courses. In selecting advanced courses, students may tailor their programs to fit specific career objectives, such as industrial chemistry, biochemistry, graduate study, research, medicine or dentistry. Students should plan their programs in consultation with a faculty adviser. Advanced course programs must be approved as part of the application for major standing.

To earn a Bachelor of Science degree with a major in chemistry, a student must be approved for major standing and must complete the core curriculum, which requires a minimum of 44 credits in chemistry and 18 credits of corequisite courses, plus eight elective credits in chemistry at the 400 level of which at least two credits must be laboratories. The specific selection of the eight elective credits in chemistry at the 400 level must be approved in writing by the chemistry department's chief adviser. CHM 491 - Independent Research (3 credits) or CHM 457 - Biochemistry Laboratory (3 credits) may be included as part of the elective credits in chemistry, as these courses satisfy the laboratory requirement as well as the general education capstone requirement. CHM 490 may not be used to satisfy the 400 level elective credits for the major. The full degree requirements for the Bachelor of Science degree with a major in chemistry are detailed below.

Core curriculum - 52 credits

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 220 - Introduction to Computational Chemistry (2)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- CHM 325 - Analytical Chemistry (4)
- CHM 342 - Physical Chemistry I (4)
- CHM 343 - Physical Chemistry II (4)
- CHM 348 - Physical Chemistry Laboratory (2)
- CHM 362 - Descriptive Inorganic Chemistry (3)
- CHM 400 - Seminar (0) (two semesters)
- CHM 438 - Inorganic/Organic Laboratory (2)
- CHM 453 - Biochemistry I (3) or BCM 453 - Biochemistry I (3)
- Eight credits in advanced chemistry courses (400 level or above). At least 2 credits must be laboratories. Recommended laboratory courses are CHM 491 or CHM 457, either of which satisfy the capstone requirement.

Corequisite courses - 18 credits

- MTH 154 - Calculus I **(4)**
- MTH 155 - Calculus II **(4)**
- PHY 151 - Introductory Physics I **(4)** and PHY 110 - General Physics Lab I **(1)**
- PHY 152 - Introductory Physics II **(4)** and PHY 111 - General Physics Lab II **(1)**

Recommended elective

- CSE 130 - Introduction to Computer Programming **(4)**

Admission to major standing

Admission to major standing by the department is required at least three semesters before graduation. Students must consult with the chemistry department chief adviser and file an application for admission to major standing, which includes a curriculum plan, during the term in which they first take a 300-400 level chemistry course. This procedure is designed to ensure that an appropriate plan of study is completed by graduation. Application for major standing in chemistry will be approved after completion of CHM 144 /147, CHM 145 /148, CHM 220, CHM 234, CHM 235, CHM 237, PHY 151 and MTH 154 with a grade point average (GPA) of 2.00 or better.

American Chemical Society certification

The Department of Chemistry's faculty members, facilities and curriculum meet the criteria of the American Chemical Society. This allows the department to certify chemistry students as eligible for society membership. Certification is granted to students who have successfully completed the requirements for the Bachelor of Science degree with a major in chemistry.

Requirements for the major in engineering chemistry, B.S. program

Coordinators: *James D. Schall (SECS), Jennifer Tillinger (Chemistry)*

The program in engineering chemistry, which is offered by the Department of Chemistry in cooperation with the School of Engineering and Computer Science, leads to the Bachelor of Science degree with a major in engineering chemistry. It is intended for well-qualified students who seek a basic preparation in engineering along with a highly professional chemistry program.

Course requirements (minimum of 128 total credits)

To earn the degree of Bachelor of Science with a major in engineering chemistry, students must complete a minimum of 128 credits, satisfy writing requirement (also see Undergraduate degree requirements) and meet the following requirements:

General education -- 28 credits (excluding mathematics and science)

- Students are required to take **PHL 104 - Introduction to Ethics in Science and** Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and physics – 24 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4) (or APM 257 (3))
- PHY 161 - Fundamentals of Physics I (4)
- PHY 162 - Fundamentals of Physics II (4)

Chemistry -- 40 credits

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1); (or CHM 167 (5) - CHM 168 (5)), (or CHM 162 (4) - CHM 163 (4)).
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- CHM 325 - Analytical Chemistry (4)
- CHM 342 - Physical Chemistry I (4)
- CHM 343 - Physical Chemistry II (4)
- CHM 348 - Physical Chemistry Laboratory (2)
- CHM 471 - Structure and Synthesis of Polymers (3)
- One lecture or laboratory course above CHM 400 (3)

Engineering core -- 33 credits

Required courses:

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)

Plus 8 credits from:

- ME 438 - Fluid Transport (4)
- ME 448 - Therman Energy Transport (4)
- ME 456 - Energy Systems Analysis and Design (4)
- ME 457 - Internal Combustion Engines I (4)
- ME 482 - Fluid and Thermal Systems Design (4)
- ECE 431 - Automatic Control Systems (4)

Capstone Course -- 3-4 credits

- ME 492 - Senior Mechanical Engineering Design Project (4) or
- CHM 491 - Independent Research (3)

Performance requirements and additional general education notes

Students in this program are not required to complete the College of Arts and Sciences college exploratory requirements. Students must complete the university's general education, including the capstone course of either CHM 491 or ME 492 (see Undergraduate Degree Requirements). In addition to the previously

stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the courses taken to satisfy the engineering and chemistry requirements and in the courses prescribed for the mathematics, physics and computer science requirements.

Chemistry, STEP

Adviser: *John V. Seeley*

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Generally, eligibility for admission to the STEP requires a minimum GPA of 3.00 in both the major and the minor and an overall GPA of 2.80 or better. No single major or minor course grade may be below 2.0. Second-undergraduate degree candidates completing majors and/or minors may be required to complete additional course-work at Oakland University beyond the stated minimums. Students in this program must complete the requirements for a B.A. or B.S. degree in chemistry in the College of Arts and Sciences and concurrently fulfill the major requirements listed below.

1. One course in earth science chosen from

- PHY 106 - Earth Science/Physical Geography (4)
- ENV 308 - Introduction to Environmental Studies (4)
- ENV 373 - Water Resources (3)
- (or another course approved by the chemistry STEP adviser)

2. One course in science, technology and society

- CHM 300 - Chemistry, Society Health (4)

3. One course in biology

- BIO 111 - Biology I (4) (or another course approved by the chemistry STEP adviser)

Additional information

A program in STEP must include either a 20-28 credit secondary teaching minor or an integrated science endorsement. Furthermore, STEP chemistry majors must also complete a sequence of undergraduate course-work in education to include SED 300 (must be completed prior to STEP application), DLL 397, FE 406, RDG 338 and SED 427 (must be completed prior to the final internship semester). Extended study including SE 401, SED 428 and SED 455 is also required. Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Chemistry and the School of Education and Human Services Advising Office, 363 Pawley Hall, (248) 370-4182.

Secondary Teacher Education Program (STEP): Endorsement in Integrated Science

Students pursuing the STEP chemistry major are eligible to pursue an Integrated Science endorsement. Students who complete both the STEP chemistry major and the STEP Integrated Science program will be recommended for certification by Oakland University to teach the following subjects at the secondary level: biology, chemistry, earth science, life science, physical science and physics. This program may be substituted for a secondary teaching minor.

Students must complete the STEP chemistry major and also have taken the following courses

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- ENV 308 - Introduction to Environmental Studies (4)
- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (5)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (5)
- PHY 111 - General Physics Lab II (1)
- PHY 104 - Astronomy: The Solar System (4)
- PHY 106 - Earth Science/Physical Geography (4) or
- GEO 106 - Earth Science/Physical Geography (4)

Additional Information

STEP chemistry majors should note that many of the courses listed above may have already been taken in the process of completing the STEP chemistry major.
A cumulative grade point average of 3.00 is required in courses in the program, with no single course grade below 2.0. Second undergraduate degree candidates completing the program may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the STEP chemistry advisor.

Research

The Department of Chemistry offers exceptional opportunities year-round for interested and qualified students to participate in faculty research. Course credit for research may be earned in CHM 290, CHM 490, and CHM 491. In addition, employment opportunities or fellowships are often available. Such research experience is of particular value to students preparing for graduate study or industrial employment.

Students should feel free to discuss research opportunities with members of the chemistry faculty. Specific arrangements with an individual faculty member must be made before enrollment in CHM 290, CHM 490, or CHM 491.

Departmental Honors

Departmental honors may be awarded to graduating seniors in chemistry who have been recommended for honors by their research advisers and have completed all required science courses with high grades.

Advanced Courses in Chemistry

Students pursuing a major in chemistry, B.S. program, take 8 credits of advanced courses in areas of interest. In addition to the courses listed in this catalog, the following advanced courses are open to qualified undergraduates: CHM 521 and 522, Advanced Analytical Chemistry and Topics in Analytical Chemistry; CHM 534 and 535, Advanced Organic Chemistry and Topics in Organic Chemistry; CHM 540, Symmetry in Chemistry; CHM 541 and 542, Advanced Physical Chemistry and Topics in Physical Chemistry; CHM 553 and 554, Advanced Biochemistry and Topics in Biochemistry; and CHM 563 and 564, Advanced Inorganic Chemistry and Topics in Inorganic Chemistry. See the on-line Oakland University Graduate course listings for course descriptions.

Biochemistry Program

In cooperation with the Department of Biological Sciences, the Department of Chemistry offers a Bachelor of Science degree with a major in biochemistry. Courses used to fulfill the requirements for a major in biochemistry may not be used simultaneously to fulfill the requirements for a major or minor in chemistry.

Requirements for the liberal arts minor in chemistry

Students in other departments or the Bachelor of Integrative Studies who wish to minor in chemistry must complete the following requirements:

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 325 - Analytical Chemistry (4)
- CHM 342 - Physical Chemistry I (4)

Additional information

A minimum of 8 credits in chemistry must be earned at Oakland University. An approved concentration/minor authorization form must be filed three semesters prior to graduation.

Requirements for the secondary teaching minor in chemistry

A minimum of 20 credits in chemistry is required for the secondary teaching minor in chemistry. Students transferring equivalent courses must still meet this 20-credit minimum.

This must include

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)

Plus CHM courses from one of the following two options

Option 1 - Restricted to students who also take BIO 325 (e.g., biology majors)

- CHM 234 - Organic Chemistry I (4)
- CHM 220 - Introduction to Computational Chemistry (2)
- CHM 325 - Analytical Chemistry (4)

Option 2 - Non-biology majors would normally select this option

- CHM 201 - Introduction to Organic and Biological Chemistry (4)
- CHM 220 - Introduction to Computational Chemistry (2)
- CHM 325 - Analytical Chemistry (4)

Additional information

Non-science majors must complete an additional 4 credits in science for a total of 24 credits. In addition SED 427 - ST: Teaching Secondary in the Minor Methods (chemistry) is required.

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education minor adviser in the department.

Pre-medical studies concentration: medicine, dentistry, optometry and veterinary medicine

The Bachelor of Science degree with a major in biochemistry provides students with all the requirements for a pre-medical studies concentration. The Bachelor of Science degree and the Bachelor of Arts degree with a major in chemistry provide students with all the requirements for a pre-medical studies concentration with the exception of five courses in biology/biochemistry that must be completed. Students interested in a medical career should refer to the pre-medical studies concentration in medicine, dentistry, optometry and veterinary medicine (see Other Academic Options of catalog) and consult with the biology or biochemistry adviser and with the Colege of Arts and Science Advising Office or a Department of Biological Sciences Adviser.

Course Offerings

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes: sail.oakland.edu

The various introductory chemistry courses (CHM 104, CHM 143, CHM 144/147 and CHM 145/148) are for students in different majors with different levels of mathematical and physical science preparation. Students who do not place in MTH 062 or a higher MTH course are advised to complete MTH 061 prior to enrolling in any chemistry course. Students must consult with the chemistry department adviser or their major adviser before enrolling in CHM 104 or CHM 143.

CHM 104 is designed primarily for pre-nursing students. Computer science and engineering students may enroll in CHM 143 or CHM 144/147. Science majors (biology, biochemistry, chemistry, environmental health, physics) and students majoring in the health sciences should enroll in CHM 144/147.

CHM 144/147 and CHM 145/148 are prerequisite to all higher chemistry courses except CHM 201 and CHM 300. Credit will be allowed for only one of each of the following series of courses: CHM 104, CHM 143, CHM 144/147. Credit will not be allowed in major and minor programs in chemistry, biology or physics for CHM 201 and CHM 300, except for CHM 300, which is allowed for the STEP majors in biology and chemistry.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

CHM 104 - Introduction to Chemical Principles (4)
Study of principles of general chemistry. Prepares students for CHM 201. Recommended preparation: high school algebra and chemistry. *Satisfies the university general education requirement in the natural science and technology knowledge exploration area. Students must attend four general education laboratory sessions during the semester.*
Prerequisite(s): MTH 061 with a minimum grade of 2.0 or placement in MTH 062 or higher MTH course.

CHM 143 - Chemical Principles (4)
States of matter, atomic structure, bonding and molecular structure, chemical reactions. This course has common lectures with CHM 144. CHM 143 does not satisfy the university general education requirement in the natural science and technology knowledge exploration area. Recommended preparation is three years of high school mathematics and one year of high school chemistry. Restricted to engineering and computer science majors.
Prerequisite(s): Score of 20 or higher on ACT mathematics exam; or MTH 062.

CHM 144 - General Chemistry I (4)
States of matter, atomic structure, bonding and molecular structure, chemical reactions. Recommended preparation is three years high school mathematics and one year of high school chemistry. *CHM 144 and 147 replace lecture/lab CHM 157. CHM 144 and CHM 147 together satisfy the university general education requirement in the natural science and technology knowledge exploration area.*
Prerequisite(s): score of 20 or higher on ACT mathematics exam, or MTH 062 or equivalent.
Corequisite(s): CHM 147.

CHM 145 - General Chemistry II (4)
Chemical reactions, kinetics, equilibrium, acid-base chemistry, theromdynamics, and electrochemistry.
Prerequisite(s): CHM 144 and 147 (or CHM 143 and 147 or CHM 157).
Corequisite(s): CHM 148.

CHM 147 - General Chemistry Laboratory I (1)
Experimental investigation of chemical phenomena and measurements to accompany CHM 144. May be taken with permission by students who have completed CHM 143.
Corequisite(s): CHM 144.

CHM 148 - General Chemistry Laboratory II (1)
Training in basic techniques of chemistry experimentation.
Prerequisite(s): CHM 144 and 147 (or CHM 143 and 147 or CHM 157).
Corequisite(s): CHM 145.

CHM 200 - Special Topics in Chemistry (1 TO 4)
Study of a selected topic in chemistry. Prerequisites may vary. May be repeated for additional credit.

CHM 201 - Introduction to Organic and Biological Chemistry (4)
Brief survey of oganic and biological chemistry, emphasizing applications to human physiology. CHM 201 may not be used for major or minor credit in chemistry, biology or physics, except for the STEP minor in chemistry.
Prerequisite(s): CHM 104.

CHM 220 - Introduction to Computational Chemistry (2)
Introduction to the use of modern computational methods for the solution of chemical problems, with emphasis on the use of high-level software packages. Topics include elementary computational procedures, statistical treatment of experimental data, graphical methods, and an introduction to molecular modeling. No computer programming experience required.
Prerequisite(s): CHM 145 and CHM 148 (or CHM 158); MTH 154 or MTH 122 recommended.

CHM 234 - Organic Chemistry I (4)
Introduction to the structure, properties and reactivity of organic compounds.
Prerequisite(s): CHM 145 and CHM 148 or CHM 158.

CHM 235 - Organic Chemistry II (4)
A continuation of CHM 234. A study of the organic chemistry of functional groups and an introduction to biologically important organic compounds.
Prerequisite(s): CHM 234.

CHM 237 - Organic Chemistry Laboratory (2)
Basic organic laboratory manipulations at the semi-micro level, synthesis, spectroscopy and chromatography.
Prerequisite(s): CHM 234

CHM 290 - Introduction to Research (1 to 4)
Introduction to laboratory research for students with no previous research experience. May be repeated for credit. Graded S/U.
Prerequisite(s): permission of instructor.

CHM 300 - Chemistry, Society & Health (4)
Designed for non-science majors and STEP chemistry majors and minors. Applies chemistry to environmental topics including smog, ozone depletion, global climate changes, water pollution, acid rain, fossil fuel and nuclear and alternative energies. Several in-class laboratory experiences included. *Satisfies the university general education requirement in the natural science and technology knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.*
Prerequisite(s): completion of the university writing foundation requirement.

CHM 325 - Analytical Chemistry (4)
Acid-base, complexation, precipitation, oxidation-reduction and phase-distribution principles, along with fundamentals of spectroscopy, chromatography and statistics, are studied and applied to chemical analysis. Four hours of lecture and eight hours of laboratory per week.
Prerequisite(s): CHM 145 and 148 or CHM 158.

CHM 342 - Physical Chemistry I (4)
Kinetics, applications of thermodynamics to chemical systems and equilibria.
Prerequisite(s): CHM 145, and CHM 148, or CHM 158; MTH 155; PHY 152 and 111.

CHM 343 - Physical Chemistry II (4)
Introduction to quantum mechanics, statistical mechanics and molecular spectroscopy. This course may be taken before CHM 342.
Prerequisite(s): CHM 145 and 148 (or CHM 158), MTH 155 and PHY 152 and 111.

CHM 348 - Physical Chemistry Laboratory (2)
Experiments in thermodynamics, kinetics, phase equilibria, and advanced spectroscopy with emphasis on mathematical treatment of experimental data. *Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite(s): CHM 220, 325 and 342 or 343.

CHM 362 - Descriptive Inorganic Chemistry (3)
Structure, bonding and reactivity of inorganic compounds.
Prerequisite(s): CHM 235.

CHM 400 – Seminar (0)
Discussions of recent advances and topics of current interest; reports. Graded S/U.
Prerequisite(s): junior or senior standing.

CHM 410 - Environmental Chemistry (3)
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.
Prerequisite(s): CHM 234.

CHM 412 - Atmospheric Chemistry (3)
Chemistry of atmospheric gases and aerosols. Environmental issues (stratospheric ozone depletion, global warming, photochemical smog, acid rain, biosphere/atmosphere interactions). Concepts (lifetimes, sources, sinks, transport, global cycles). Social issues (air quality standards, effects of air pollutants). Measurement techniques.
Prerequisite(s): CHM 342.

CHM 413 - Environmental Aquatic Chemistry (3)
Applications of inorganic and organic chemistry in natural waters pertaining to environmental concerns. Topics include acid-base reactions, buffer systems, mineral precipitation, chemical complexation, redox reactions, adsorption phenomena, chemical-equilibria, and the influence of organic chemicals on transfer and reaction processes in the environment.
Prerequisite(s): CHM 234.

CHM 426 - Instrumental Analysis (3)
An integrated examination of contemporary analytical instrumentation including spectroscopy, electrophoresis, chromatography, and mass spectrometry. Emphasis is placed on developing a functional understanding through the analysis of samples typical of those examined in industrial laboratories. Two hours of lecture and four hours of laboratory per week. laboratory per week.
Prerequisite(s): CHM 325.

CHM 427 – Electrochemistry (3)
Survey of electroanalytical and spectroelectrochemical methods. Includes microelectrodes and selective electrodes in bioelectrochemistry as well as electrical phenomena at the biological membrane level.
Prerequisite(s): CHM 325.

CHM 432 - Advanced Organic Chemistry (3)
Selected topics in synthetic, structural and physical-organic chemistry.
Prerequisite(s): CHM 235.

CHM 438 - Inorganic/Organic Laboratory (2)
Synthesis, analysis and characterization of organic and inorganic compounds.
Prerequisite(s): CHM 237 and 362. CHM 362 may be taken concurrently.

CHM 444 - Advanced Physical Chemistry (3)
Introduction to statistical mechanics. Applications of quantum and statistical mechanics to chemical bonding, molecular structure and spectroscopy.
Prerequisite(s): CHM 342, 343 and MTH 254.

CHM 453 - Biochemistry I (3)
First course in a comprehensive biochemistry sequence. Structure and function of proteins, carbohydrates and lipids; enzyme mechanisms, kinetics and regulation; bioenergetics and catabolism. Identical with BCM 453.
Prerequisite(s): CHM 235.

CHM 454 - Biochemistry II (3)
Metabolic pathways and control; nucleic acid structure, function and processing, including regulation of gene expression. Selected topics in molecular physiology. Identical with BCM 454.
Prerequisite(s): CHM/BCM 453.

CHM 457 - Biochemistry Laboratory (3)
Techniques of extraction, separation, identification and quantification of proteins and DNA including electrophoresis and various forms of chromatography; study of enzyme kinetics and regulation of catalytic activity; molecular biology methods including cloning, polymerase chain reaction, site-directed mutagenesis and expression and analysis of mutated proteins. Emphasis placed on mathematical treatment of experimental data. Identical with BCM 457. *Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive; completion of the university writing foundation requirement.*
Prerequisite(s): CHM or BCM 453, which may be taken concurrently.

CHM 458 - Biochemistry Projects (2)
Advanced project-oriented instruction in biochemical laboratory techniques.
Prerequisite(s): CHM 457 and permission of instructor.

CHM 463 - Inorganic Chemistry (3)
Structure, bonding and reactivity of inorganic and organometallic compounds, with emphasis on transition elements and selected main group elements.
Prerequisite(s): CHM 362.

CHM 470 - Industrial Chemistry (3)
Survey of the major sources and uses of chemicals, industrial chemical processes, fundamental raw materials and career paths available in the chemical industry. More intensive treatment of selected industrial processes.
Prerequisite(s): CHM 235.

CHM 471 - Structure and Synthesis of Polymers (3)
Preparation, properties and structure of selected inorganic and organic polymers. Both chemical theory and technological and organic polymers. Both chemical theory and technological applications will be discussed.
Prerequisite(s): CHM 235.

CHM 472 - Chemical and Physical Properties of Polymers (3)
The molecular principles governing the physical behavior of macromolecules in solution and in the glassy and crystalline states. The mechanical behavior and structure of macromolecules.
Prerequisite(s): CHM 471 and 343 or permission of instructor.

CHM 477 - Macromolecular Laboratory (2)
Introduction to the synthesis and physical characterization of synthetic polymers.
Prerequisite(s): CHM 237 and CHM 471; CHM 471 may be taken concurrently.

CHM 480 - Selected Topics (1 to 4)
Advanced study in selected areas; normally involves preparation of a term paper or presentation of a seminar. May be repeated for credit.
Prerequisite(s): permission of instructor.

CHM 486 - Physical-Analytical Projects (1 or 2)
Advanced experimentation in physical or analytical chemistry, with at least four hours per week per credit.
Prerequisite(s): permission of instructor.

CHM 487 - Synthesis Projects (1 or 2)
Advanced synthesis work emphasizing modern techniques, with at least four hours per week per credit.
Prerequisite(s): permission of instructor.

CHM 490 – Research (1 to 8)
Laboratory practice in undergraduate research, with at least four hours per week per credit. May be repeated for credit. Cannot be used to satisfy the chemistry major requirements for 400-level courses. Graded S/U.
Prerequisite(s): permission of instructor.

CHM 491 - Independent Research (3)
Undergraduate research with at least eight hours per week in the laboratory. Requires a written report. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite(s): junior standing and permission of instructor.

CHM 497 - Apprentice Chemistry Teaching (1 or 2)
Supervised participation in teaching undergraduate or high school courses in chemistry. May be repeated once for credit.
Prerequisite(s): permission of instructor.

Department of Communication and Journalism

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Chairperson: *Jeffrey Youngquist*

Professor: *Sharon L. Howell*

Associate professors: *Kathleen M. Battles, Jacob Cayanus, Rose M. Cooper, Scott Crabill, Thomas Discenna, Rebekah Farrugia, Kellie Hay, Jennifer M. Heisler, David L. Lau, Lily Mendoza, Valerie Palmer-Mehta (director, Communication Program), Adina Schneeweis, Robert Sidelinger (supervisor, Communication Internships), Jeffrey Youngquist*

Assistant professors: *Rebecca Mercado Thornton, Erin Meyers, Sam Srauy, Chiaoning Su*

Special instructor*: Elizabeth Talbert*

Full-time adjunct instructors: *Garry Gilbert (director, Journalism Program), Holly Shreve Gilbert, Christine Stover*

Visiting instructor*: Laura Fry*

Lecturers in communication: *Scott Burke, Lisa Campbell, Amanda Fylan, Paul Fugate, Brian Hlavaty (supervisor, Journalism internships),Timothy Johnston, Catherine Jostock, Carol Anne Ketelsen, Jason Pennington, James Perkinson, Charles Rinehart, Martin Shafer, Jon Wilkinson, Debra Youngquist, Gina Zasadny, Stefen Welch*
Lecturers in journalism: Colleen Campbell, Susan Evans, Jodi Friedman, Paul Gully, Kelly Kozlowski, Kim Madeleine, Edward Nakfoor, Judith Sawyer, Ritu Sehgal, Catherine Shafran, Kaniqua Daniel

Chief advisers: *Elizabeth Talbert (Communication), Holly Shreve Gilbert (Journalism)*

The Department of Communication and Journalism offers programs of study leading to the degree of Bachelor of Arts in Communication or Journalism, with the opportunity to concentrate in several areas within each major. Courses are available in communication theory, public and interpersonal communication, media, rhetoric, critical/cultural studies, print and broadcast journalism, public relations, advertising.

Departmental Honors and Scholarships

All communication and journalism majors with a university grade point average of 3.00 and a grade point average of 3.60 in the major are considered candidates for departmental honors. Honors are awarded to those candidates with the highest averages in major courses. The exact criterion varies from year to year. The department awards the following scholarships the Donald C.Hildum Scholarship for communication students demonstrating academic promise, the Oakland Press Scholarship for excellence in journalism, the Bunting and Briggs Freedom of the Press Scholarship, the Richard D. French public relations tuition award and the Nancy A. French award.

Requirements for the liberal arts major in communication, B.A. program

The major in communication combines theory and practice and emphasizes how people analyze and make responsible choices in communication contexts. Students develop critical perspectives in order to evaluate different communication approaches. Students, as communicators, learn to choose the effect their actions have on

others. They learn also to choose their roles as citizens in a community. This responsibility requires that they appreciate and respect human differences among cultures, social groups, genders and individuals, and that they create a voice for building personal and public relationships.

To earn the Bachelor of Arts degree with a major in communication, students must complete a minimum of 40 credits, of which 20 credits must be at the 300 level or above, plus language and writing corequisite courses.

The requirements include:

1. Required courses (must be completed with a grade of 2.0 or higher)

- COM 150 - Introduction to Communication Studies (4)
- COM 385 - Multicultural Communication (4)

Plus one course in public address (must be completed with a grade of 2.0 or higher)

- COM 201 - Public Speaking (4)
- COM 308 - Competitive Speaking (2) (two semesters required for a total of 4 credits)
- COM 324 - Professional Communication (4)

And one course in theory (must be completed with a grade of 2.0 or higher)

- COM 303 - Relational Communication Theory (4)
- COM 311 - Rhetorical Theory (4)
- COM 312 - Cultural Theory in Communication (4)
- COM 313 - Media and Mass Communication Theory (4)

2. Four credits in a capstone course (must be completed with a grade of 2.0 or higher)

- COM 399 - Community Field Experience (4)
- COM 491 - Internship (4)
- COM 495 - Senior Research Seminar (4)

3. One course from the Interpersonal group

- COM 302 - Communication in Leadership (4)
- COM 304 - Communication in Organizations (4)
- COM 305 - Relational Communication (4)
- COM 306 - Interpersonal Conflict (4)
- COM 325 - Nonverbal Communication (4)
- COM 327 - Gender Communication (4)
- COM 366 - The Dark Side of Interpersonal Communication (4)
- COM 405 - Advanced Relational Communication (4)
- COM 410 - Family Communication (4)
- COM 425 - Advanced Nonverbal Communication (4)

4. One course from the Media group

- COM 250 - Introduction to Media Communication (4)
- COM 287 - Media and Social Identity (4)
- COM 335 - Communication, Mobile Media, and the Internet (4)
- COM 350 - Popular Media in the Age of Convergence (4)
- COM 368 - Critical Approaches to Popular Music (4)
- COM 375 - Rise of Electronic Media (4)
- COM 387 - Media, Gender and Sexuality (4)
- COM 412 - Media Criticism (4)
- COM 415 - Theory and Practice of Media Literacy Outreach (4)

5. One course from the Rhetoric/Critical Cultural group

- COM 301 - Persuasion (4)
- COM 314 - Discourse Theory (4)
- COM 318 - Argumentation and Debate (4)
- COM 388 - Race and Communication (4)
- COM 389 - Hip-Hop, Race and the City (4)
- COM 401 - Persuasion and Social Change (4)
- COM 409 - Women, Power, and Persuasion (4)
- COM 411 - Rhetorical Criticism in Communication (4)
- COM 485 - Cultural Studies in Communication (4)

6. At least 8 credits in COM electives from among all COM course offerings

7. Language corequisite (select one of the following)

1. American Sign Language at the university level (COM 114-COM 115). COM 114-COM 115 will also satisfy the elective requirement (see #6 above) for the major in communication.
2. An introductory two-semester sequence in a modern foreign language (4 credits of which will satisfy university general education language requirement)
3. One semester of a modern foreign language at the 115 level or higher (will satisfy the university general education language requirement)

8. Writing corequisite (select one of the following)

- JRN 200 - Introduction to Journalism and News Writing (4)
- WRT 364 - Writing About Culture: Ethnography (4)
- WRT 382 - Business Writing (4)

Additional information

Students using this catalog to meet communication major requirements may also use any course subsequently approved as satisfying requirements in a particular group and published in a later catalog.

Communication majors interested in careers in public relations or advertising are encouraged to minor in public relations or advertising. (See the Journalism Program section of this catalog.)

Communication majors may not minor in relational communication or interactive and social media.

Requirements for the liberal arts minor in communication

To earn a minor in communication, students must complete a minimum of 20 credits in communication including:

1. Required courses

- COM 150 - Introduction to Communication Studies (4)

Plus one of the following

- COM 201 - Public Speaking (4)
- COM 202 - Group Dynamics and Communication (4)
- COM 308 - Competitive Speaking (2) (two semesters required for a total of 4 credits)
- COM 324 - Professional Communication (4)

2.At least 8 credits from a single group: Interpersonal, Media or Rhetoric/Critical Cultural group

Interpersonal group

- COM 302 - Communication in Leadership (4)
- COM 304 - Communication in Organizations (4)
- COM 305 - Relational Communication (4)
- COM 306 - Interpersonal Conflict (4)
- COM 325 - Nonverbal Communication (4)
- COM 327 - Gender Communication (4)
- COM 366 - The Dark Side of Interpersonal Communication (4)
- COM 405 - Advanced Relational Communication (4)
- COM 410 - Family Communication (4)
- COM 425 - Advanced Nonverbal Communication (4)

Media group

- COM 250 - Introduction to Media Communication (4)
- COM 287 - Media and Social Identity (4)
- COM 335 - Communication, Mobile Media, and the Internet (4)
- COM 350 - Popular Media in the Age of Convergence (4)
- COM 368 - Critical Approaches to Popular Music (4)
- COM 375 - Rise of Electronic Media (4)
- COM 387 - Media, Gender and Sexuality (4)
- COM 412 - Media Criticism (4)
- COM 415 - Theory and Practice of Media Literacy Outreach (4)

Rhetoric/Critical Cultural group

- COM 301 - Persuasion (4)
- COM 311 - Rhetorical Theory (4)
- COM 314 - Discourse Theory (4)
- COM 318 - Argumentation and Debate (4)
- COM 388 - Race and Communication (4)
- COM 389 - Hip-Hop, Race and the City (4)
- COM 401 - Persuasion and Social Change (4)
- COM 409 - Women, Power, and Persuasion (4)
- COM 411 - Rhetorical Criticism in Communication (4)
- COM 485 - Cultural Studies in Communication (4)

3. At least 12 credits in communication courses must be at the 300-400 level.

Note

Students using this catalog to meet communication minor requirements may also use any course subsequently approved as satisfying requirements in a particular group and published in a later catalog.

Requirements for the liberal arts major in journalism, B.A. program

The journalism major builds on the liberal arts education by teaching students skills and theory necessary to produce meaningful content for news, public relations and advertising organizations. The curriculum is designed to endow students with a solid practical and technical knowledge base as well as an understanding of the legal, ethical and theoretical aspects of journalism and its critical role in a democracy. Students learn the dual concepts of press freedom and press responsibility. Due to the broad nature of the journalism curriculum, students can either generalize or develop a special emphasis within the major by taking a series of courses in print journalism

(including media design), broadcast and online journalism, public relations or advertising. Students in the program are encouraged to develop expertise in different disciplines through minors or a double major. All journalism majors must complete an internship and a senior portfolio is recommended.

To earn the Bachelor of Arts degree with a major in journalism, students must complete a minimum of 40 credits in journalism courses distributed as follows:

1. Core courses - 20 credits

- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 300 - Advanced News Writing and Editing **(4)**
- JRN 402 - Ethical Issues in the Media **(4)**
- JRN 403 - Media Law **(4)**
- JRN 404 - Journalism Internship **(4)**

2. Visual journalism requirement - 4 credits selected from

- JRN 331 - Digital Photojournalism **(4)**
- JRN 411 - Convergence Journalism **(4)**
- JRN 440 - Media Design **(4)**
- JRN 445 - Video Documentary Journalism **(4)**

3. At least 16 elective credits in journalism courses

4. Senior portfolio

The portfolio is a recommended exhibit of a journalism major's learned skills and experience. It should be posted online and include an introduction, resume and samples of published or broadcast work and /or pertinent scholarly research or projects. The internship often is the best source for portfolio content. Majors should contact the director during their junior year to discuss.

Note

Students using this catalog to meet journalism major requirements may also use any course subsequently approved as satisfying requirement in the visual journalism requirement category and published in a later catalog.

Requirements for the liberal arts minor in journalism

The liberal arts minor in journalism requires a minimum of 24 credits distributed as follows:

1. Twelve credits in 3 core courses:

- JRN 200 - Introduction to Journalism and News Writing (4)
- JRN 300 - Advanced News Writing and Editing (4)
- JRN 404 - Journalism Internship (4)

2. At least 12 elective credits in journalism courses

Requirements for the liberal arts minor in advertising

The liberal arts minor in advertising requires a minimum of 24 credits distributed as follows:

1. 12 credits in three core courses:

- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 340 - Introduction to Advertising **(4)**
- JRN 404 - Journalism Internship **(4)** (*when applicable to advertising and approved by adviser*)

2. At least 12 credits selected from the following:

- JRN 341 - Advertising Account Planning and Research **(4)**
- JRN 342 - Advertising Creative Strategy **(4)**
- JRN 344 - Advertising Copywriting **(4)**
- JRN 440 - Media Design **(4)**
- JRN 480 - Special Topics in Journalism **(4)** (*when applicable to advertising and approved by adviser*)

Note:
No more than 8 credits of course work used to satisfy the minor may be applied toward the major, but exceptions to this rule may be allowed with the written approval of the program directors.

Requirements for the liberal arts minor in public relations

The liberal arts minor in public relations requires a minimum of 24 credits distributed as follows:

1. Twenty credits in 5 core courses:

- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 350 - Introduction to Public Relations **(4)**
- JRN 351 - External Public Relations **(4)**
- JRN 352 - Internal Public Relations **(4)**
- JRN 404 - Journalism Internship **(4)** *(when applicable to public relations and approved by adviser)*
-

2. At least 4 credits selected from

- COM 304 - Communication in Organizations **(4)**
- JRN 353 - Public Relations and the News **(4)**
- JRN 354 - Case Studies in Public Relations **(4)**
- JRN 440 - Media Design **(4)**
- JRN 480 - Special Topics in Journalism **(4)** *(when applicable to public relations and approved*

Note
No more than 8 credits of course work used to satisfy the minor may be applied toward the journalism major, but exceptions to this rule may be allowed with the written approval of the program directors.

Requirements for the liberal arts minor in interactive and social media

The minor in interactive and social media requires a minimum of 20 credits as follows:

Core course

- COM 150 - Introduction to Communication Studies (4)

An additional four classes from the following choices, with at least one course from each category, theory and practice

Theory

- COM 303 - Relational Communication Theory (4)
- COM 305 - Relational Communication (4)
- COM 335 - Communication, Mobile Media, and the Internet (4)
- COM 350 - Popular Media in the Age of Convergence (4)
- COM 366 - The Dark Side of Interpersonal Communication (4)
- COM 495 - Senior Research Seminar (4) (if appropriate; requires department approval)

Practice

- JRN 329 - Digital Storytelling for the Media: Diversity, Identity, and Community (4)
- JRN 411 - Convergence Journalism (4)
- JRN 404 - Journalism Internship (4) (with approval by the course director to ensure that it includes a proper focus on interactive or social media)
- COM 399 - Community Field Experience (4) (with approval by the course director to ensure that it includes a proper focus on interactive or social media)
- COM 491 - Internship (4) (requires department approval)

Only one of these internship courses may count toward the minor.

Note
Students majoring in communication may not elect this minor.

Requirements for the liberal arts minor in broadcasting

The liberal arts minor in broadcasting requires a minimum of 24 credits distributed as follows:

1 Required core courses

- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 332 - Radio Television News **(4)**

2. At least 16 credits selected from the following

- COM 225 - Introduction to Digital Media Production **(4)**
- COM 275 - Introduction to Live TV Production **(4)**
- COM 284 - Audio Production **(4)** or JRN 284 - Audio Production (4)
- COM 375 - Rise of Electronic Media **(4)**
- COM 384 - Advanced Audio Production **(4)**
- JRN 333 - Digital TV News **(4)**
- JRN 411 - Convergence Journalism **(4)**
- Recommended for radio emphasis: COM 284/JRN 284, COM 375, COM 384 , JRN 411
  Recommended for television emphasis: COM 225 , COM 275, COM 375 , JRN 333

No more than 8 credits of course work used to satisfy the minor may be applied toward the major, but exceptions to this rule may be allowed with the written approval of the program directors.

Requirements for the liberal arts minor in multimedia

The liberal arts minor in multimedia requires a minimum of 24 credits distributed as follows:

1. Required core courses

- JRN 200 - Introduction to Journalism and News Writing **(4)**
- JRN 331 - Digital Photojournalism **(4)**

- JRN 411 - Convergence Journalism **(4)**

2. At least 12 credits selected from

- JRN 332 - Radio Television News **(4)**
- JRN 333 - Digital TV News **(4)**
- JRN 440 - Media Design **(4)**
- JRN 441 - Advanced Media Design **(4)**
- JRN 445 - Video Documentary Journalism **(4)**

Note
No more than 8 credits of coursework used to satisfy the minor may be applied toward the major, but exceptions to this rule may be allowed with the written approval of the program directors.

Requirements for liberal arts minor in relational communication

The minor in relational communication requires a minimum of 22 credits chosen from the following courses:

- COM 202 - Group Dynamics and Communication **(4)**
- COM 305 - Relational Communication **(4)**
- COM 306 - Interpersonal Conflict **(4)**
- COM 327 - Gender Communication **(4)**
- COM 360 - Listening in Communication **(2)**
- COM 366 - The Dark Side of Interpersonal Communication **(4)**
- COM 405 - Advanced Relational Communication **(4)**
- COM 410 - Family Communication **(4)**

Note
Students majoring in communication may not elect this minor.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

COMMUNICATIONS

COM 101 - Collegiate Communication (1)
A twelve week, one credit course with a primary goal of teaching students how successful communication and relationship development can improve their chances of academic and personal success.

COM 114 - Introduction to American Sign Language (4)
Conversational American Sign Language. Introduction to basic sign vocabulary and grammatical features including facial expression and body language. Includes an examination of the psychological, cultural and linguistic aspects of the deaf community.

COM 115 - American Sign Language (4)
A continuation of COM 114.
Prerequisite(s): COM 114.

COM 150 - Introduction to Communication Studies (4)
Examines the centrality of communication to human experience including key concepts essential to understanding the processes and practices of communication, the theoretical models and traditions of the discipline, and the historical development of the field.

COM 201 - Public Speaking (4)
Theory and practice in public address: adaptations required by particular goals, audience and occasions, and classroom interactions.

COM 202 - Group Dynamics and Communication (4)
Group dynamics, discussion and problem solving; influences of group structure, norms, roles, leadership and climate on the processes of group communication and collaborative decision making.

COM 207 - Meaning in Language (4)
Identical with LIN 207.

COM 211 - Rhetoric and Public Culture (4)
The role of rhetoric in creating, negotiating, and reconceptualizing U.S. democratic values, practices, and institutions and the historical development of public culture and the rhetorical interventions that have shaped it. Examines rhetoric as a transformational modality capable of managing disagreement, motivating civil discourse, and promoting peaceful socio-political change.

COM 214 - American Sign Language III (4)
Continues the work of COM 114-115 with a focus on clarity and completion of expressions. Accurate reception as well as an examination of literary prose in a deaf community.
Prerequisite(s): COM 115

COM 215 - American Sign Language IV (4)
Develops expressive and receptive fluency through a study of the performance and structure of American Sign Language poetry.
Prerequisite(s): COM 214.

COM 225 - Introduction to Digital Media Production (4)
Editing video content for digital media. Shooting and production of video content for social media and traditional broadcasting formats using both HD cameras and cellphones. Non-Linear video editing techniques.
Prerequisite(s): COM 250

COM 250 - Introduction to Media Communication (4)
Introduction to the historical, programming, physical, legal, social, and economic aspects of broadcasting and its transformation in a digital age.

COM 275 - Intro to Live TV Production (4)
Basics of production and recording video in a live television studio as well as basics of camera operation and the roles of professionals on the floor and the control room.

COM 284 - Audio Production (4)
Analysis and evaluation of contemporary audio/radio production and programming introduction to writing, producing, and performing audio programming. Identical with JRN 284.

COM 287 - Media and Social Identity (4)
Explores the role of media in the construction of international, national and local communities, as well as social identity. Students will be given an historical overview of the development of media with an emphasis on the role of media in shaping our ideas of ethnicity, gender identity and citizenship. Satisfies the university general education requirement in the social science knowledge exploration area.

COM 301 – Persuasion (4)
Analysis of persuasion in current society, psychological bases of persuasion, ethical considerations, and distinctions between debate and persuasive argument.

COM 302 - Communication in Leadership (4)
Examines the communication qualities of leadership in various contexts including decision-making teams, groups and organizations. Consideration of major theoretical approaches to leadership and applied skills and practices.

COM 303 - Relational Communication Theory (4)
Survey of major theoretical approaches to the study of relational communication. Includes overview of history, paradigmatic assumptions, and current research. Examines individually-centered theories, discourse and interaction processes, and interpersonal theories.
Prerequisite(s): COM 150 or permission of instructor; sophomore standing.

COM 304 - Communication in Organizations (4)
Communication theory and practice **within organizational systems.**

COM 305 - Relational Communication (4)
Examination of the roles of communication, identity, and sexuality in the development, maintenance, and deterioration of relational attachments.

COM 306 - Interpersonal Conflict (4)
Examines the role of conflict in interpersonal interaction. Emphasis is on the factors which contribute to the negotiation of conflict.

COM 307 - Performance Communication (4)
Foundations, history, and theory of performance communication. Particular attention given to how cultural processes and practices influence performance.

COM 308 - Competitive Speaking (2)
Advanced practice and application of speech writing, public address and oral interpretation skills using many of the standards established by the National Forensics Association. May be repeated for up to 6 credits.
Prerequisite(s): permission of instructor.

COM 311 - Rhetorical Theory (4)
Examination of major theories of rhetoric from classical to contemporary times.
Prerequisite(s): COM 150 with a grade of 2.0 or higher or permission of instructor.

COM 312 - Cultural Theory in Communication (4)
Theoretical underpinnings of cultural studies, situated within communication studies. Embodied performance, discourse, and message construction will as the primary grounds of theorizing. Application of theories to socio-cultural issues and communicative processes.
Prerequisite(s): COM 150 with a grade of 2.0 or higher or permission of instructor.

COM 313 - Media and Mass Communication Theory (4)
Major theoretical approaches to the study of media and mass communication. Includes overview of history, paradigmatic assumptions and current research. Examines sub-disciplines and related essential distinctions between humanistic and social scientific approaches.
Prerequisite(s): COM 150 with a grade of 2.0 or higher or instructor permission.

COM 314 - Discourse Theory (4)
Theories of discourse including critical discourse analysis and discursive psychology. Methods of discourse analysis in communication. Relation of discourse to communication.

COM 318 - Argumentation and Debate (4)
Theories of argumentation from the classical to the contemporary period combined with debating experience. Propositions of fact, value and policy are distinguished and related to the construction and selection of argument. Debate experience will focus on the national intercollegiate proposition.

COM 324 - Professional Communication (4)
Explores the theories, and practices associated with professional communication. Students will focus on issues common in professional contexts including oral presentation, interviews, and interpersonal skills in the workplace including working collaboratively with others and increasing responsiveness to organization diversity.

COM 325 - Nonverbal Communication (4)
Analyzes the effects of nonverbal communication on human interaction in the interpersonal setting.

COM 327 - Gender Communication (4)
Explores the relationships between gender and communication strategies and settings. The course examines how gender is experienced and how individuals learn to manage the dynamic of gender in interpersonal interaction and public discourse.

COM 335 - Communication, Mobile Media, and the Internet (4)
Examines the relationship between communication practices and the networked technologies of the Internet and mobile media, including their impact on politics, commerce, knowledge, privacy, and interpersonal relationships. Focus on the popular practices of search engines, video sharing services, texting, and social media sites.

COM 350 - Popular Media in the Age of Convergence (4)
Examination of the relationships between media technologies, institutions, cultural forms and audiences within contemporary convergence culture. The focus is on how traditional forms of mass media texts, particularly television, have been impacted by new technologies and how such shifts reconfigure our understanding of media audiences/consumers.

COM 360 - Listening in Communication (2)
Examination of the differences between hearing and listening in responsible communication. Identifies barriers to effective listening and explores ways to manage them. Different listening skills appropriate for diverse types and purposes of listening are identified and examined.

COM 366 - The Dark Side of Interpersonal Communication (4)
Explores the dark side of interpersonal communication. Students will gain an understanding of the dark side metaphor and examine the many ways in which dysfunctional interpersonal communication operates across a variety of personal relationship contexts. Topics include deception, hurtful transgressions, infidelity, teasing and bullying, and avoidance and secrets.
Prerequisite(s): COM 305, sophomore standing.

COM 368 - Critical Approaches to Popular Music (4)
Draws on core concepts from media and cultural studies to understand and analyze popular music's relationship to social and culture production. Key debates discussed include cities, technologies, gender and sexuality.

COM 371 - Forms and Effects of Mass Communication (4)
Identical with SOC 371.

COM 373 - Social Control of Mass Media (4)
Identical with SOC 373.

COM 375 - Rise of Electronic Media (4)
Examines the development of the technologies, institutions, regulations, cultural forms, and audiences of electronic media. Considers the ways in which media was both shaped by and was a force in changing cultural and social conditions. Satisfies the university general education requirement in Western civilization knowledge exploration area.

COM 380 - Special Topics in Communication (4)
Various topics in communication theory and practice chosen by department faculty. May be repeated for additional credit under different subtitles.

COM 384 - Advanced Audio Production (4)
Advanced skills in studio and remote audio production, editing, and programming. Identical with JRN 384.
Prerequisite: COM 284.

COM 385 - Multicultural Communication (4)
Relationships among culture, communication and perception, and how these relationships are manifested in our daily interactions among people who are racially, ethnically and sexually different from us. Students learn communication practices necessary to create understanding in intercultural encounters. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): junior standing. Completion of the university writing foundation requirement.

COM 386 - Understanding Media Industries (0 or 4)
Identical with CIN 325.
Prerequisite(s): CIN 150 or ENG 250.

COM 387 - Media, Gender and Sexuality (4)
Examines the relationship between media and cultural ideas about gender and sexuality. Emphasis on the ways that media institutions, texts, and audiences construct, negotiate, and interpret changing concepts about masculinity, femininity, and sexual preference. Identical with WGS 387.

COM 388 - Race and Communication (4)
Examines the ways communication practices shape and are shaped by racialized identities. Explores identity formation through domains of interpersonal communication, institutional discourse, political rhetorics, cultural performances, educational pedagogies, and religious perspectives.

COM 389 - Hip-Hop, Race and the City (4)
Examines the spread of hip-hop as an international popular culture idiom around the globe, articulating struggles over identity and gender, sexuality and race ecology and place in a world of ever accelerating change.

COM 399 - Community Field Experience (4)
Faculty approved field experience in volunteer community service. Focus on developing an understanding of the relationship between communication and community with readings, essays, response papers, and in-class presentations and discussion. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): senior standing, communication major, and at least 20 credits of COM courses.

COM 401 - Persuasion and Social Change (4)
Examination of the communicative processes by which movements for social change influence institutions and actors. Emphasis on persuasive strategies for mobilization, maintenance and social transformation including narrative and argument, symbolism and music, and the roll of leadership. Analysis of case studies and consideration of contemporary efforts at social change.

COM 402 - Small Groups (4)
Identical with SOC 402.

COM 405 - Advanced Relational Communication (4)
Advanced current research and theories in relational communication. Shows how communication is the force behind the initiation, development, maintenance, and deterioration of interpersonal relationships. Prerequisite(s): COM 303 or COM 305.

COM 407 - Advanced Performance Communication (4)
Advanced study of the history, theory and practice of oral interpretation. Focus is on narration and the aesthetic and emotional responsiveness of the communicative voice in prose and poetry.
Prerequisite(s): COM 307.

COM 409 - Women, Power, and Persuasion (4)
Survey of women's contributions to the rhetorical tradition from classical antiquity to the present.
Prerequisite(s): COM 150 with a minimum grade of 2.0.

COM 410 - Family Communication (4)
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 411 - Rhetorical Criticism in Communication (4)
Examines research methods used in rhetorical criticism from traditional to contemporary approaches. Provides principles for the analysis, interpretation, and evaluation of persuasive discourse. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): COM 150 with a grade of 2.0 or higher or permission of instructor.

COM 412 - Media Criticism (4)
Examines the methodological and theoretical perspectives used in media criticism. Provides an overview of the methods used to analyze, interpret, and evaluate the meaning and impact of mediated discourse.

COM 414 - Sexuality and Communication (4)
Concepts and theories related to communication and sexuality, such as relationships, abilities, sexual literacy, sexual identities, sexual practices, sex representations, and social control of sexuality, with particular emphasis on LGBTQ relationship experiences. Prerequisite: WRT 160 or equivalent and junior or senior standing.

COM 415 - Theory and Practice of Media Literacy Outreach (4)
Exploration of the theory and practice of media literacy as community outreach. Students explore scholarly and public debates about the social influence of media. Course is based around a service-learning model that empowers students to translate and promote the theoretical concepts of media literacy in the community.
Prerequisite(s): COM 150 with a grade of 2.0 or higher.

COM 425 - Advanced Nonverbal Communication (4)
Advanced topics and readings in nonverbal communication. Students will read and critique nonverbal communication research and theories on topics such as deception, immediacy, and expectancy violations across communication contexts, including romantic, workplace, and classroom.
Prerequisite(s): COM 304, 305, 306, 325, or 327 and minimum sophomore standing.

COM 475 - Adv Digital Media Production (4)
Practicum in digital media storytelling and production. Advanced production and editing of video and HD content for digital media. Emphasis on storytelling with theory as a framework.
Prerequisite(s): COM 225.

COM 480 - Special Topics Seminar (4)
Group study of topics of special interest chosen by department faculty and students. May be repeated for credit with the instructor's permission.
Prerequisite(s): three COM courses.

COM 485 - Cultural Studies in Communication (4)
History, theoretical frameworks and applied studies emergent in cultural studies from a communication driven perspective. Students will explore the relationships among communication practices, cultural forms and politics within and among cultures.
Prerequisite(s): COM 385 with a grade of 2.0 or higher; COM 303 highly recommended.

COM 486 - Communication, Culture, and Ecology (4)
Explores the foundations of communication in living ecologies that sustain human communities on the planet. Examines differing narratives and cultural assumptions regarding nature, human being, and what counts for communication. Seeks creative ways to address global ecological challenges through transformed communication perspectives and practices.
Prerequisite(s): COM 385 with a grade of 2.0 or higher or permission of instructor.

COM 490 - Independent Study (1 to 4)
Special research projects in speech communication. May be repeated for a maximum of 8 credits.
Prerequisite(s): junior or senior standing. 12 previous credits in the major, permission of instructor and completion of course application form.

COM 491 – Internship (4)
Supervised student internship in business, broadcasting, government, or non-profit organizations. Reports and analyses of work performed at the organization required. Prior approval required. May be repeated once in a different setting for a maximum of eight internship credits. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): junior or senior standing and permission of instructor. (Permission will normally require completion of at least one writing course beyond WRT 160.)

COM 495 - Senior Research Seminar (4)
Faculty-directed research seminar will provide an overview of communication research and introduce students to basic research procedures, paradigms, and methods. Topics will vary by instructor. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): COM 303.

COM 497 – College Teaching Apprenticeship (2 or 4)
Assisting in teaching an undergraduate course in speech communication, and discussions with the supervising faculty member on the principles, methods and problems of such teaching. Repeatable in different settings up to 4 credits.
Prerequisite(s): junior standing and permission of instructor.

COM 498 - Research Apprenticeship in Communication (2 or 4)
Mentorship by an instructor in design and implementation of a faculty-directed research project. May be repeated for a total of eight credits. Only four credits may be used to fulfill major requirements.
Prerequisite(s): junior or senior standing and permission of instructor.

JOURNALISM

JRN 200 – Introduction to Journalism and News Writing (4)
History and principles of U.S. journalism; training in the practical aspects of news gathering, interviewing and basic news writing techniques; and discussion of the various journalism media. Satisfies the university general education requirement for writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the writing knowledge foundation area.

JRN 250 - Intro to Media Communication (4)
Identical with COM 250.

JRN 284 - Audio Production (4)
Identical with COM 284.

JRN 300 – Advanced News Writing and Editing (4)
Advanced training in news writing and various news story types. Fundamentals of editing news and information for online and print publication, including journalistic grammar and style, and decision-making processes that determine what is published. Prerequisite(s): JRN 200.

JRN 311 - Public Affairs Reporting (4)
Practical training in the news coverage of government and government agencies, including schools, public safety and the courts. Prerequisite(s): JRN 200 or permission of instructor.

JRN 312 - Feature Writing (4)
Practice in writing human interest features for newspaper, magazine and online publication. Study of the aims, styles, categories, techniques and structures of feature writing. Prerequisite(s): JRN 200 or permission of instructor.

JRN 313 - Magazine Writing and Freelancing (4)
Practical training in writing magazine-length articles. Discussion of medium-specific differences, how to write and sell freelance pieces, legal liabilities and rights of the freelance writer, including a discussion of the U.S. copyright laws.
Prerequisite(s): JRN 312.

JRN 314 - Sports Reporting (4)
Writing sports for both print and electronic media. Emphasis on writing and interviewing, from teaching the proper techniques of conducting individual interviews to covering large press conferences. Students will conduct real-world interviews as well as cover local sporting events. Various Detroit-area sports media personnel will lecture and share experiences.
Prerequisite(s): JRN 200.

JRN 329 - Digital Storytelling for the Media: Diversity, Identity, and Community (4)
Examination of the relationship between journalism, media institutions, digital technologies, identity, and community - especially in relation to ethnicity, race, gender, and class. Study of digital citizenship with application in the assembly of non-fiction digital media content, using a variety of software. Satisfies the university general education requirements in U.S. Diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

JRN 331 - Digital Photojournalism (4)
Practice of photojournalism in the contemporary digital environment. Visual storytelling, camera operation, digital processing, professional/ethical issues. Prerequisite(s): JRN 200 or permission of instructor.

JRN 332 - Radio-Television News (4)
Fundamentals and techniques of preparing broadcast news including story development, writing and producing news for radio and TV broadcast.
Prerequisite(s): JRN 200 or instructor permission.

JRN 333 - Digital TV News (4)
Practical application of TV reporting, writing, editing, producing and anchoring skills. Student-produced news reports and newscasts are published on a variety of platforms.
Prerequisite(s): COM 225.

JRN 340 - Introduction to Advertising (4)
Introduction to advertising in print, electronic and online media. Emphasis on marketing, strategy, and the social and legal environment.
Prerequisite(s): JRN 200 or instructor permission.

JRN 341 – Advanced Account Planning and Research (4)
Focus on the strategic aspects of advertising and integrated marketing communications (IMC), development of media strategy, sales promotion and the new media. Prerequisite(s): JRN 340 or permission of instructor.

JRN 342 - Advertising Creative Strategy (4)
Practical application of creative strategy towards the development of a complete advertising campaign in an ad agency group format.
Prerequisite(s): JRN 340.

JRN 344 - Advertising Copywriting (4)
The planning, research and writing that goes into promotion of a company, product or person as part of an advertising campaign.
Prerequisite(s): JRN 340.

JRN 350 - Introduction to Public Relations (4)
Overview of the practices of public relations and its potential impact on various audiences. Study of basic public relation writing formats and management functions related to key external and internal publics. Prerequisite(s): JRN 200 or permission of instructor.

JRN 351 - External Public Relations (4)
Study of public relations related to an organization's external audiences such as the news media and local, state and national government officials. Students study public relations strategies used to interact with these groups, including media relations, legislative lobbying and special events.
Prerequisite(s): JRN 350.

JRN 352 - Internal Public Relations (4)
Study of public relations related to internal audiences of an organization. In-depth discussion of the shaping of internal culture via public relations vehicles such as publications, general memos, video, new/social media, and face-to-face employee communications.
Prerequisite(s): JRN 350.

JRN 353 - Public Relations and the News (4)
Study of the relationship between public relations practitioners and the news media. Students focus on understanding the differing needs of the news media and how to create and implement various public relations vehicles to reach target audiences through the media.
Prerequisite(s): JRN 350.

JRN 354 - Case Studies in Public Relations (4)
Study of real-life public relations efforts of various companies and organizations. Students take on the role of public relations practitioners for a fictitious organization and develop public relations goals, objectives, tactics and programs to deal with situations that affect the organization.
Prerequisite(s): JRN 350.

JRN 384 - Advanced Audio Production (4)
Identical with COM 384.
Prerequisite(s): JRN 284 or COM 284.

JRN 402 - Ethical Issues in the Media (4)
Study of ethics with an emphasis on problems that arise in digital, broadcast and print news, public relations and advertising. Students learn to identify ethical dilemmas, discuss basic principles for ethical decision-making, and build strategies for applying those principles.
Prerequisite(s): JRN 200 or instructor permission.

JRN 403 - Media Law (4)
Introduction to media law, basic principles governing the American judicial system, historical context for First Amendment issues and analysis of key legal decisions governing the media's right to gather and disseminate information. Students discuss issues dealing with prior restraint, libel law, invasion of privacy, protection of news sources, obscenity law, copyright law and FCC regulations.
Prerequisite(s): JRN 200 or instructor permission.

JRN 404 - Journalism Internship (4)
Full- or part-time internship at a newspaper, online news organization, radio or television station, public relations firms, advertising agency or a non-profit organization. Open only to journalism majors and minors. May be repeated once for credit in a different medium. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): JRN 200 and three other JRN courses.

JRN 410 - Database Reporting (4)
Identifying, analyzing and interpreting data for reporting complex, public interest stories utilizing computer database management systems.
Prerequisite(s): JRN 200 or permission of instructor.

JRN 411 - Convergence Journalism (4)
Multimedia storytelling through an introduction to a variety of software programs and digital applications. Students create websites, podcasts, slideshows and short videos, and participate in crowdsourcing, (micro) blogging and citizen journalism projects.
Prerequisite(s): JRN 200 or instructor permission.

JRN 412 - OU Student News Bureau (4)
Applied learning experience running a web-based news organization. Students learn how to research, report, edit and package multimedia news for online delivery. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): JRN 200 and JRN 300 and permission of instructor.

JRN 440 - Media Design (4)
Workshop in design to explore techniques and trends in typography, layout and design in traditional and new media. Students learn the theory and practice of text-heavy print and digital projects designed to communicate with specific audiences in a diverse society.
Prerequisite(s): JRN 200 or instructor permission.

JRN 441 - Advanced Media Design (4)
Advanced skills and trends in typography, layout and design in traditional and new media culminating in the exhibition of a multi-faceted body of work. Final project must include a significant graphic component as well as a substantive writing element.
Prerequisite(s): JRN 440 and permission of instructor.

JRN 445 - Video Documentary Journalism (4)
Assembly of short- and long-form documentary journalism for traditional and non-traditional visual media. Students report, shoot, edit, and package video and multimedia stories in a range of storytelling styles, including investigative, historical, or biographical. Emphasis not only on the story, but on the storytelling.
Prerequisite(s): JRN 331, 332 or 411.

JRN 480 - Special Topics in Journalism (4)
Various topics subject to change from semester to semester. May be repeated for additional credit under different subtitles.
Prerequisite(s): JRN 200 or instructor permission.

JRN 490 - Independent Study (2 or 4)
Individual research projects in journalism. May be repeated for a maximum of 8 credits.
Prerequisite(s): junior/senior standing and permission of program director.

Department of Economics

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Chairperson*: Anandi P. Sahu*

Professor emeritus: *Eleftherios N. Botsas*

Professors: *Addington Coppin, Sherman Folland, Oded Izraeli, Kevin J. Murphy, Anandi P. Sahu, Jonathan Silberman, Miron Stano*

Associate professors: *Nivedita Mukherji, Ram Orzach, Kasaundra Tomlin, Ronald L. Tracy*

Assistant professors: *Fuad Hasanov, Xie Zhu*

Chief adviser: *Anandi P. Sahu*

The Department of Economics offers a variety of programs for undergraduate students interested in economics: a Bachelor of Arts with a major in economics, a Bachelor of Science with majors in economics and business economics (see the School of Business Administration portion of this catalog) and a Bachelor of Science with a major in actuarial science that is jointly offered with the Department of Mathematics and Statistics.

The economics curriculum teaches students the concepts and tools of economic analysis, while providing them with the breadth and flexibility of a broad general education degree. Students learn how economic analysis can be applied to major problems facing individuals, businesses, the nation and the world today. A major in economics prepares students for the workplace of the future, which will require workers who are flexible, adaptable to change and who can propose practical solutions to solve problems quickly.

Besides preparing students for a career in the public and private sector, an education in economics is excellent preparation for law school, graduate school in public administration or economics, or a Master of Business Administration (MBA) program. Economics is a flexible choice for students seeking a rigorous, well-respected and relevant major without specializing in a narrowly defined area.

The Bachelor of Arts degree with a major in economics allows a student to pursue a liberal arts education while providing a background that businesses considers appropriate for most entry-level management positions. The Bachelor of Science degree with a major in economics has additional requirements in business and economics while providing educational and career flexibility not offered by a degree in business. The minor in economics is useful for liberal arts majors with an interest in business and for business majors who want to demonstrate their solid grounding in economics, the foundation for a business degree. The Bachelor of Science with a major in actuarial science prepares students for jobs in actuarial science as well as provides them with the educational background necessary to pursue an advanced degree in economics, mathematics, statistics, or business administration.

Students who are interested in attending graduate school in economics should see the department chairperson or an economics faculty mentor at an early stage of their undergraduate program. Academic advisers in the School of Business Administration (for B.A. and B.S. degrees) and the College of Arts and Sciences (for B.A. degree) or the chairperson of the Department of Economics do general student advising.

Departmental Honors

Economics majors are eligible for departmental honors if their grade point average in alleconomics and other courses taken from the School of Business Administration is 3.33 or above.

Promising economics students may be invited to join Omicron Delta Epsilon, a national economics honor society.

Requirements for the liberal arts major in economics, B.A. program

The program leading to a Bachelor of Arts degree in economics includes cognate courses in mathematics, statistics and computers and required economics courses and economics electives, as listed below. Students who have taken ECN 150 or ECN 160 before ECN 201 or ECN 202 (or ECN 200) and who subsequently become economics majors, should talk to the department chairperson. The economics major must complete each of the cognate, required and elective courses with a grade of 2.0 or better:

Cognate courses

- MTH 061 - Elementary Algebra (4) (if required by ACT or SAT scores)
- MTH 062 - Intermediate Algebra (4) (if required by ACT or SAT scores)
- MTH 121 - Linear Programming Elementary Functions (4) or MTH 141 - Precalculus (4)
- MTH 122 - Calculus for the Social Sciences (4) or MTH 154 - Calculus I (4)
- MIS 100 - Business Problem Solving with Information Technology (3)
- QMM 250 - Statistical Methods for Business (6)
- or QMM 240 - Statistical Methods for Business I (3) and QMM 241 - Statistical Methods for Business II (3)

Required courses

- ECN 210 - Principles of Economics (6) or
- both ECN 202 - Principles of Global Macroeconomics (4)
- (or ECN 200) and ECN 201 - Principles of Microeconomics (4)
- ECN 302 - Intermediate Macroeconomics (3)
- ECN 303 - Managerial Economics (3)
- ECN 304 - Consumer and Welfare Economics (3)

Economics major electives

Choose six economics electives at the 300-level or above, one or more of which must be at the 400 level. No more than 3 credits of ECN 490 may be counted as electives. Students taking ECN 150 before ECN 200 or ECN 201, and who subsequently become economics majors, should talk to the department chairperson.

Note

Students must meet any course prerequisites before taking these courses. All cognate, required and major elective courses must be completed with a grade of 2.0 or better.

Requirements for the liberal arts major in actuarial science, B.S. program

Because an actuary needs a blend of mathematics, economics, statistics, and finance, this major is offered jointly by the Department of Mathematics and Statistics and the Department of Economics. However, the major in actuarial science differs significantly from the other majors offered by these two departments because it (1) prepares students for jobs in actuarial science as well as provides them with the educational background necessary to pursue an advanced degree in economics, mathematics, statistics, or business administration, (2) integrates two distinctly different disciplines, thereby providing students with a breadth of knowledge that is needed in our fast changing world, and (3) provides students with the analytical and reasoning skills to successfully complete the first two exams in actuarial science offered by the Society of Actuaries.

To earn the Bachelor of Science degree with a major in actuarial science, students must complete a minimum of 124 credits. All required and cognate courses must be completed with a minimum grade of 2.0.

To earn the Bachelor of Science degree with a major in actuarial science, students must

1. Complete

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)

2. Complete

- ACS 300 - Foundations of Probability and Calculus (1)
- unless the student has a grade of at least 3.5 in MTH 254 - Multivariable Calculus or permission of the chief undergraduate adviser
- STA 226 - Applied Probability and Statistics (4)
- STA 427 - Introduction to Mathematical Statistics I (4)

3. Complete

- ECN 210 - Principles of Economics (6)
- or both ECN 201 - Principles of Microeconomics (4) and ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200)
- ECN 302 - Intermediate Macroeconomics (3) or ECN 321 - Financial Markets and the Economy (3)
- ECN 303 - Managerial Economics (3)

4. Complete

- QMM 241 - Statistical Methods for Business II (3)

5. Complete

- FIN 322 - Managerial Finance I (4)
- FIN 416 - Investment Analysis (3) or FIN 425 - Financial Derviatives (3)
- FIN 422 - Managerial Finance II (3)

6. Complete

- ECN 405 - Econometrics (3) or STA 402 - Applied Linear Models I (4)
- ACS 450 - Financial Mathematics (3)

7. Complete

- MIS 314 - Business Database Systems (3)
- MIS 443 - Business Analytics (3) or MIS 546 - Business Analytics (3)

8. Complete one of the following electives

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- STA 425 - Elements of Stochastic Processes (4)
- STA 428 - Introduction to Mathematical Statistics II (4)

9. Complete cognate courses

- ACC 200 - Introductory Financial Accounting (4)
- ACC 301 - Financial Reporting and Analysis (3)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)

- WRT 382 - Business Writing (4)

10. Complete ACHIEVE courses

- SBC 199 - ACHIEVE I (0) (to be taken during the freshman year or first year as an actuarial science major)
- SBC 299 - ACHIEVE II (0) (to be taken during the fall semester of the sophomore year or the second semester as an actuarial science major)
- ACS 399 - ACHIEVE 3 Actuarial Sciences (0) (to be taken during the second semester of the sophomore year or the third semester as an actuarial science major)

11. Earn a minimum grade of 2.0 in all courses applied to the major including cognate courses for the major.

Economics Minor

The economics faculty believes strongly in its role as a provider of education in economics to a broad range of students in other majors. Even moderate contact with the concepts and applications of economics will be valuable to most students. The minor in economics provides recognition to the student who does not want a major in economics but who has taken several courses in the area.

This minor is open to all students except economics and business economics majors.

Requirements for a liberal arts minor in economics

The minor in economics consists of a minimum of 18 credits in economics courses including any prerequisites for these courses. Students taking ECN 150 or ECN 160 before ECN 201 or ECN 202 (or ECN 200) who subsequently want to minor in economics, should talk to the minor coordinator.

1. Required course(s)

- ECN 210 - Principles of Economics (6)
- or both ECN 201 - Principles of Microeconomics (4) and ECN 202 - Principles of Global Macroeconomics (4)
- (or ECN 200).

2. 12 credits in any 300- or 400-level economics (ECN) courses

Note

A minimum grade of 2.0 must be earned in each course in the economics minor and in the prerequisites for each course.

Requirements for the secondary teaching minor in economics

A minimum of 20 credits in economics and business is required for the secondary teaching minor in economics, distributed as follows:

1. Required courses

- ECN 201 - Principles of Microeconomics (4)
- ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200)
- ECN 321 - Financial Markets and the Economy (3)
- ECN 373 - International Trade (3)
- ECN 376 - U.S. and World Economic History (3)
- MIS 100 - Business Problem Solving with Information Technology (3)

2. Required methods course

- SED 427 - ST: Teaching Secondary in the Minor Methods (3 OR 4)

Note

Students are advised to take MIS 100 early in the education program, as the course is likely to be helpful in many courses involving information technology. They should also obtain a supplemental course pack (that covers issue analysis) from the secondary education minor adviser in the department.

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students should consult with the chair in the Department of Economics (445 EH) or with the College of Arts and Sciences advising office (221 Varner).

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

ECONOMICS

ECN 150 - Economics in Today's World (4)
Provides an overview of both macroeconomics and microeconomics. Students will learn about the law of supply and demand, economics of business, industry structure, international trade, exchange rates, inflation, unemployment, and fiscal and monetary policy. This is a survey course intended for students who desire a broad familiarity with a wide range of economic concepts. It does not provide adequate preparation for degrees in business or economics, and does not provide sufficient background for the Professional Engineering (PE) examination. Economics or business major should not take this course (see specific requirements for those majors). Satisfies the university general education requirement in the social science knowledge exploration area. Offered every fall and winter.

ECN 160 - Introduction to the Global Economy (4)
Explains and analyzes the comparative advantage, free trade, barriers to trade, and exchange rates. Composition of international trade is analyzed. GDP, growth, unemployment, inflation, poverty, and income distribution are discussed. Measures of each are shown for the US, other industrialized countries, as well as emerging, and developing countries. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. (Generally offered every semester.) Students cannot get credit for both ECN 202 and ECN 160.

ECN 200 - Principles of Macroeconomics (4)
Examines a broad range of macroeconomic concepts such as determination of national income, fluctuations in the economy, fiscal and monetary policies, money and banking, inflation and unemployment, and international economics. It also provides an introduction to a few key microeconomic concepts, such as scarcity, opportunity cost, supply and demand, and market processes. Satisfies the university general education requirement in the social science knowledge exploration area. May not also receive credit for ECN 210.
Prerequisite(s): high school algebra.

ECN 201 - Principles of Microeconomics (4)
Provides an introduction to key microeconomic concepts. Examines operations of markets, theory of consumer demand, elasticity, organization of the firm, production and cost in the long and short runs, competition, externalities, market failures, legal and regulatory environment of business and international economics. It also explores economic perspectives on issues of ethnicity and gender in the U.S. economy. (Generally offered every semester.) Satisfies the university general education requirement in the social science knowledge exploration area.

May not also receive credit for ECN 210.
Prerequisite(s): high school algebra.

ECN 202 - Principles of Global Macroeconomics (4)
Examines a broad range of macroeconomic concepts such as determination of national income, short-term fluctuations in the economy and long-term economic growth, fiscal and monetary policies, money and banking, inflation and unemployment, with special emphasis on their global significance, and on international comparisons of macroeconomic attributes. The course introduces key concepts that will strengthen understanding of the interlinked global economy, such as comparative advantage, balance of trade and payments, exchange rates, barriers to free trade, international growth convergence, and the impact of cultures and norms on economic performance. Students are highly recommended to take ECN 201 prior to taking ECN 202. (Generally offered every semester and term.) May not also receive credit for ECN 210. Satisfies the university general education requirement in the global perspective knowledge exploration area or in the social science knowledge exploration area, not both.
Prerequisite(s): high school algebra.

ECN 210 - Principles of Economics (6)
Provides an introduction to principles of macroeconomics and microeconomics, covering the same topics as ECN 201 and ECN 202 combined but at an accelerated pace. Intended for highly motivated students with good writing and math ability. Satisfies the university general education requirement in the social science knowledge exploration area. (Generally offered fall semester.) May not also receive credit for ECN 201 and (ECN 200 or ECN 202).
Prerequisite(s): high school algebra and a GPA of 3.00 or better.

ECN 250 - Economics Principles - a Mathematical Approach (4)
Analyzes the principles of microeconomics and macroeconomics using mathematics. Topics include: demand and supply, consumer theory, theory of the firm, market equilibrium, market structure, monitoring economic performance, aggregate demand and supply, macroeconomic policies, and long-run economic growth.
Prerequisite(s): MTH 154 and MTH 155 with a minimum grade of 2.0 in each course.

ECN 302 - Intermediate Macroeconomics (3)
Deals with construction, analysis and interpretation of models of aggregate economic behavior, including the policy implications of alternative models, international interrelationships and assessment of contemporary controversies in national policy (Generally offered fall semester).
Prerequisite(s): (MTH 122 or MTH 154) and ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 303 - Managerial Economics (3)
Explores microeconomic theory and its application to managerial decision making. Examines consumer behavior, cost and output estimation, optimization, pricing issues in competitive and non-competitive markets, decision making under uncertainty and capital budgeting. Satisfies the university general education requirements in the knowledge applications integration area except for economics majors. Prerequisite for knowledge applications: completion of the general education requirement in the social science knowledge exploration and the formal reasoning knowledge foundation areas. (Generally offered every semester).
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) and (MTH 122 or MTH 154) with a minimum grade of 2.0 in each course.

ECN 304 - Consumer and Welfare Economics (3)
The course emphasizes theories of consumer behavior and their applications to areas such as the individual and market demand curves, supply of labor, inter temporal choice of consumption, tax and public policies, and decision-making under uncertainty. Also emphasizes general equilibrium welfare economics, issues relating to equity and efficiency, the nature of public goods and externalities, consumer protection, and property rights. (Generally offered winter semester.)
Prerequisite(s): ECN 303 with a minimum grade of 2.0.

ECN 309 - State and Local Public Finance (3)
Provides explanation and analysis of state and local public finance practices and problems. Topics include public goods and externalities, benefit-cost analysis, organization of sub-national governments, the budget process and state and local revenues and expenditures. (Offered with sufficient student demand.)
Prerequisite(s): ECN 150 or ECN 201 or ECN 210, with a minimum grade of 2.0.

ECN 310 - Economics of the Environment (3)
Involves the application of the tools of economic analysis to problems of energy, ecology and the environment. Topics include externalities and public goods, optimum use of fixed national resources, limits to economic growth and ecological aspects of principal pollution problems. Generally offered winter and summer semesters of odd years.
Prerequisite(s): ECN 150 or ECN 201, or ECN 210 with a minimum grade of 2.0.

ECN 315 - Economics of Gender and Ethnicity (3)
Employs basic economic principles and standard economic theories to explore and analyze issues of gender and ethnicity at the domestic, national and international levels. Also focuses on gender related outcomes over time and across ethnic groupings. Key topics include: the economics of family structure; patterns of household and labor market activity; patterns of education and occupational choice; gender and ethnic earnings gaps; interplay of gender and ethnicity in the economy; theories of discrimination; and gender/ethnic issues in international perspective. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): ECN 150 or ECN 201 or ECN 210, with a minimum grade of 2.0.

ECN 321 - Financial Markets and the Economy (3)
Focuses on three areas: an introduction to banking and financial institutions, study of the U.S. financial markets (stock, bond and money markets), and the study of the impact of macroeconomic policies on the nation's economy and financial markets. (Generally offered winter semester and summer semester.)
Prerequisite(s): ECN 150 or ECN 201 or ECN 210 with a minimum grade of 2.0.

ECN 326 - International Economic Development (3)
The main theories of economic development applied to developing countries. Topics include decision-making at the individual and macro-levels; trade strategies; fiscal, monetary and exchange policies in promoting economic development; and the role of less developed countries in the global economy. (Generally offered winter semester of even years.) Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the global perspective knowledge exploration area.
Prerequisite(s): ECN 150 or ECN 201 or ECN 210, with a minimum grade of 2.0.

ECN 333 - History of Economic Thought (3)
Surveys the history and development of economic theory. Examines the development of classical theory, the Marxian challenge, the neo-classical refinement (marginal revolution) and the Keynesian revolution. Emphasis will be placed on the development of economics as intellectual history. (Offered with sufficient student demand.)
Prerequisite(s): ECN 150 or ECN 202 or ECN 200 or ECN 210 with a minimum grade of 2.0.

ECN 338 - Economics of Human Resources (3)
Surveys the nature of labor markets. Topics include labor demand and supply, education and investment in human capital, unemployment, geographic and occupational mobility of labor, and effects of race, sex and age in labor markets. (Generally offered fall semester of odd years.)
Prerequisite(s): ECN 150 or ECN 201 or ECN 210 with a minimum grade of 2.0.

ECN 367 - Economics of Health Care (3)
Application of tools of economic analysis to the health care industry and government health care policy. 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.)
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 373 - International Trade (3)
Examines classical, neoclassical and modern theories of international trade, as well as trade policies. Topics include: the relationship between economic growth and international trade, the theory and practice of commercial policy, preferential trading arrangements, international factor movements, trade under imperfect competition, and trade between unequal partners. (Generally offered every fall semester and summer semester of even years.)
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 374 - Economics of Intl Finance (3)
Examines issues of balance of payments adjustment, exchange rate determination, and the open economy. Topics include: theories of payments and foreign exchange, causes of disturbances and processes of adjustments in the balance of payments of the foreign exchange market under alternative exchange rate regimes, international capital markets, foreign debt, monetary integration, and the international monetary system. The course may not be substituted for FIN 419. (Generally offered winter semester of odd years.)
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 376 - U.S. and World Economic History (3)
This course covers the economic history of the United States from colonial settlement to the present time. It examines the sources of the U.S. economic growth, the creation of an integrated national economy, changes in income distribution, the evolution of political-economic institutions, and the impact of economic development on environment. This course also provides an overview of the world economic history, shifts of economic systems, patterns of industrialization, changing fortunes of leading economic powers, relationship between developed and developing economies, and the emergence of the U.S. as the leading economic and military power.
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 378 - Economic Analysis of Law (3)
Economic analysis of basic institutions of legal systems. Emphasis is on laws that are not directly intended to regulate the economy, including property, contract, tort, criminal and procedural law. Labor and antitrust law will be discussed only tangentially. (Generally offered winter and summer semesters of even years).
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 380 - Topics in Economics (3)
Study of a selected topic in economics. Emphasis is placed on the institutional rather than the theoretical aspects of the topic. May be repeated for a total of 6 credits as long as the topic covered is different. (Offered with sufficient student demand.)
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 385 - Economics of Industries (3)
Study of a selected topic in economics. Emphasis is placed on the institutional rather than the theoretical aspects of the topic. May be repeated for a total of 6 credits as long as the topic covered is different. (Offered with sufficient student demand).
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0 in each course.

ECN 399 - Achieve III - Business Economics (0)
Guide students through the job search process within the Business Economics major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

ECN 405 – Econometrics (3)
Deals with estimation and testing of economic models using regression techniques. Class time includes weekly computer lab. Topics include: identifying and correcting violations of the regression assumptions, binary variables, distributed lag models, and simultaneous equation models. Must complete prerequisites or have instructor permission. (Generally offered every fall semester.)
Prerequisite(s): (QMM 241 or QMM 250) and ECN 303 with a minimum grade of 2.0 in each course.
Corequisite(s): Weekly lab to accompany ECN 405.

ECN 406 - Time Series Econometrics (3)
Survey of econometric methods related to time series data. Topics include: distributed lag models, spurious regression, time series decomposition, stationarity, autoregressive processes, moving average processes, random walks, unit roots, serial correlation, autoregressive conditional heteroscedasticity, economic forecasting, co-integration, error correction models, vector autoregressive models, panel data methods. (Generally offered during winter semesters.)
Prerequisite(s): ECN 405 (2.0).

ECN 409 - Urban and Regional Economics (3)
Explores the application of microeconomic theory and empirical analysis to: residential choice and location of economic activities; migration patterns within and across states and metropolitan areas: major urban problems such as quality of life, transportation and optimum city size; urban sprawl; and Michigan's economy. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Generally offered fall semester of odd years.
Prerequisite(s): (QMM 241 or QMM 250) and ECN 303 with a minimum grade of 2.0 in each course.

ECN 418 - Seminar in Economic Policy (3)
Involves analysis of economic policy. Topics vary but may include resource allocation, macroeconomic stability, economic growth, energy, public choice, transitional economics, privatization, global economic interdependence and the environment. Satisfies the university general education requirement for the capstone experience and for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. (Generally offered fall semester of even years.)
Prerequisite(s): (QMM 250 or QMM 241) and ECN 303 with a minimum grade of 2.0 in each course.

ECN 421 - Monetary Economics (3)
Conducts a systematic treatment of monetary economics. Particular attention is paid to issues such as money demand, money supply, effects of money on the real economy (output and employment) and inflation, and effectiveness of monetary policy. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. (Generally offered winter semester of even years.)
Prerequisite(s): ECN 302 with a minimum grade of 2.0.

ECN 450 - Risk Management (3)
Review of interest rate theory, probability theory, and probability distributions. Development of a variety of actuarial and risk models such as contingent payment models; life contingency models; frequency, severity and aggregate claims models. Risk metrics such as standard deviation and Value at Risk (VAR). Satisfies the university general education requirement for the capstone experience. Identical with APM 450. Cannot be used as an elective for the economics major or minor. Usually offered during summer semesters.
Prerequisite(s): FIN 322 and ACC 301 and STA 427 with a grade of 2.0 or higher.

ECN 456 - Public Finance (3)
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. Satisfies the university general education requirement for capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): (QMM 241 or QMM 250) and ECN 303 with a minimum grade of 2.0 in each course.

ECN 480 - Special Topics in Economics (3)
Involves an intensive study of a selected topic in economics. Topics vary. See Schedule of Classes for current offering. May be repeated for a total of 6 credits as long as the topic covered is different. (Offered with sufficient student demand.)
Prerequisite(s): ECN 303 with a minimum grade of 2.0.

ECN 490 - Independent Study (1 TO 3)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every semester. May be repeated for a total of 6 credits. (Offered based on individual students' needs.)
Prerequisite(s): overall GPA of 3.00 or better and an approved contract prior to registration.

Department of English

544 O'DOWD HALL
(248) 370-2250
Fax: (248) 370-4429
Department Website: oakland.edu/english

Chairperson: *Kevin T. Grimm*

Distinguished professors emeriti: *Jane D. Eberwein, Robert T. Eberwein, Edward Haworth Hoeppner*

Professors emeriti: *Thomas Fitzsimmons, Daniel Fullmer, Nigel Hampton, Susan E. Hawkins, James F. Hoyle, Nancy Joseph, David W. Mascitelli, Donald E. Morse, Brian F. Murphy, Joan G. Rosen, William Schwab*

Professors: *Natalie Bell Cole, Brian A. Connery, Graeme Harper, Kathleen A. Pfeiffer*

Associate professors: *Robert F. Anderson, Jeffrey Chapman, Kyle Edwards, Andrea Eis, Annette M. Gilson, Kevin T. Grimm, Niels Herold, Jeffrey Insko, Andrea Knutson, Kevin Laam, L. Bailey McDaniel, M. Hunter Vaughan*

Assistant professors: *Courtney Brannon Donoghue, Timothy Donahue, Joanne Lipson Freed, Adam Gould, Katie Hartsock, Brendan Kredell, Susan McCarty, Alison W. Powell, David Shaerf, Amanda Stearns-Pfeiffer*

Special instructors: *Linda McCloskey, Rachel Smydra*

Lecturers: *Christopher Apap, Susan Beckwith, Jonathan Chappell, Jennifer Gower-Toms, Nathan Koob, Peter Markus, Beth McArthur, Charlene Meyers, Doris Plantus, Amy Spearman, Vanessa Stauffer*

Chief adviser: *Robert F. Anderson*

STEP adviser: *Amanda Stearns-Pfeiffer*

Cinema studies director: *Andrea Eis*

Cinema studies adviser: *Andrea Eis*

Creative writing director: *Annette M. Gilson*

Creative writing adviser: *Annette M. Gilson*

The Department of English offers courses in British and American literature, introducing students to literary history, genre studies, critical theory and intensive study of major authors.The department also offers introductory and advanced courses in poetry and fiction writing. Additionally, the Department offers courses in film, introducing students to cinema history and theory, critical film studies, and film production. For complete details concerning the Cinema Studies, B.A. or the Creative Writing, B.A., click on the appropriate link.

Courses in language, mythology and film broaden the field of literary inquiry in ways that associate imaginative writing with the other arts, with popular culture and with various academic disciplines.

By majoring in English, students can enhance appreciation of literary masterpieces, gain critical understanding of imaginative writing and develop sensitivity to the uses of language while developing skills in analysis, research and communication. Such knowledge enriches all aspects of life, while such skills prepare students for careers in law, business, publishing, medical professions, library science, journalism, government and education.

The English curriculum is flexible; by seeking regular departmental advice, English students can plan a program leading to many different professional and academic goals. The Department encourages its students to balance their programs with such concentrations as American studies, environmental studies, film aesthetics and history, women's studies and computer science, or minors in linguistics, journalism, theatre arts, general business, modern languages and other related fields. Majors from other university programs are welcome in English courses, many of which have no prerequisites.

For a description of each semester's course offerings, students should consult the ''Semester Course Descriptions,'' available in pre-registration periods through the department's web site. Faculty advisers provide specific guidance and help students develop comprehensive educational plans. Students should consult their advisers regularly.

Listed are undergraduate programs of study leading to the Bachelor of Arts degree with a major in English, a secondary education major in English (STEP), a modified major in English with a linguistics concentration,a major in creative writing, a major in cinema studies, as well as liberal arts minors in English in secondary teaching, creative writing, and in cinema studies. In addition, the Department offers a program leading to the Master of Arts degree in English; the program and course offerings are described in the online Oakland University Graduate Catalog.

Requirements for the liberal arts major in English, B.A. program

A minimum of 40 credits in English courses, distributed as follows:

1. Introductory Course

- ENG 211 - Introduction to Literary Studies (4)

2. Two courses in British literary history selected from

- ENG 354 - British Medieval Literature (4)
- ENG 355 - British Literature of the Renaissance (4)
- ENG 357 - British Literature from the Victorian Period to the Early 20th Century (4)
- ENG 358 - British and Commonwealth Literature since 1900 (4)
- ENG 370 - British Literature of the Restoration and 18th Century (4)
- ENG 371 - British Literature of the Romantic Period (4)

Or one course from this group and one course from

- ENG 311 - Chaucer (4)
- ENG 315 - Shakespeare (4)
- ENG 316 - Milton (4)
- ENG 369 - The English Novel (4)

3. One course in American literature selected from

- ENG 317 - Early American Literature (4)
- ENG 318 - American Literature 1820-1865 (4)
- ENG 319 - American Literature 1865-1920 (4)
- ENG 320 - American Literature 1920-1950 (4)
- ENG 321 - American Literature 1950 to the Present (4)

4. One capstone seminar selected from

- ENG 400 - Advanced Topics in Literature and Language (4)
- ENG 401 - Studies in Literary Kinds (4)
- ENG 420 - Trans-Atlantic Traditions (4)
- ENG 453 - Studies in Major Authors (4)
- ENG 465 - Shakespeare Seminar (4)

5. At least 24 credits must be taken at the 300 level or above.

6. At least 20 credits in English courses must be taken at Oakland.

7. An introductory two-semester sequence in a foreign language, or one semester of a foreign language at the 115 level or higher.

Additional information

- Only one course at the 100 level will be accepted for credit toward the major.
- ENG 211 is a prerequisite for the required British and American literary history courses and the capstone seminar.
- No more than 8 credits of ENG 499 will be accepted for credit toward the major.
- Normally, only 4 credits from study abroad programs will be accepted for credit toward an English major.
- Only courses in which the student has earned a grade of at least 2.0 may be counted toward the English major, including the modern foreign language requirement.

Requirements for the modified major in English with a linguistics concentration

The modified English/linguistics major requires a minimum of 24 credits in English and American literature, distributed as follows:

1. Two courses in British literary history selected from

- ENG 354 - British Medieval Literature (4)
- ENG 355 - British Literature of the Renaissance (4)
- ENG 357 - British Literature from the Victorian Period to the Early 20th Century (4)
- ENG 358 - British and Commonwealth Literature since 1900 (4)
- ENG 370 - British Literature of the Restoration and 18th Century (4)
- ENG 371 - British Literature of the Romantic Period (4)

Or one course from this group and one course from

- ENG 311 - Chaucer (4)
- ENG 315 - Shakespeare (4)
- ENG 316 - Milton (4)
- ENG 369 - The English Novel (4)

2. One course in American literature selected from

- ENG 317 - Early American Literature (4)
- ENG 318 - American Literature 1820-1865 (4)
- ENG 319 - American Literature 1865-1920 (4)
- ENG 320 - American Literature 1920-1950 (4)

3. One 400-level capstone seminar (excluding 410, 411, 412, 413, 414, 491 and 499).

4. Five LIN or ALS courses, including

- LIN 201 - Introduction to Linguistics (4)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)

5. Required course

- ENG 376 - History of the English Language (4)

6. At least 20 of the 44 combined credits must be at the 300 level or above.

Requirements for the liberal arts minor in English

A minimum of 20 credits in English courses is required (exclusive of composition courses used to satisfy the writing proficiency requirement), with the following stipulations:

- Only one 100-level course will be accepted as part of the minor.
- At least two courses must be taken at the 300 or 400 level.
- Only four credits of ENG 499 may apply toward the minor.
- Normally, only four credits from study abroad programs will be accepted for an English minor.
- At least 12 credits from offerings in English must be taken at Oakland.
- Only courses in which a student has earned at least a 2.0 may be counted toward the English minor.

- Note
- ENG 211 is a prerequisite for British and American literary history courses and the capstone seminar.

Requirements for the Secondary Teacher Education Program (STEP): English

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Eligibility for admission to STEP generally requires a GPA of 3.00 in both the major and minor and an overall GPA of 2.80. No single major or minor course grade may be below 2.0. Second undergraduate degree candidates completing a major and/or minors may be required to complete additional course work at Oakland University beyond the stated minimums. Students in this program must complete the requirements for a B.A. degree in the College of Arts and Sciences and concurrently fulfill the requirements listed below: Forty credits in English (exclusive of composition courses used to satisfy the writing requirement) distributed as follows:

1. One course in American ethnic literature selected from

- ENG 112 - Literature of Ethnic America (4)
- ENG 341 - Selected Ethnic Literature (4)
- ENG 342 - African American Literature (4)

2. Required courses

- ENG 211 - Introduction to Literary Studies (4)
- ENG 215 - Fundamentals of Grammar (4) or ENG 376 - History of the English Language (4)
- ENG 224 - American Literature (4)
- ENG 241 - British Literature (4)

3. Two courses in British literary history selected from

- ENG 354 - British Medieval Literature (4)
- ENG 355 - British Literature of the Renaissance (4)
- ENG 357 - British Literature from the Victorian Period to the Early 20th Century (4)
- ENG 358 - British and Commonwealth Literature since 1900 (4)
- ENG 370 - British Literature of the Restoration and 18th Century (4)
- ENG 371 - British Literature of the Romantic Period (4)

Or one course from this group

- ENG 311 - Chaucer (4)
- ENG 315 - Shakespeare (4)
- ENG 316 - Milton (4)
- ENG 369 - The English Novel (4)

4. One course in American literature selected from

- ENG 317 - Early American Literature (4)
- ENG 318 - American Literature 1820-1865 (4)
- ENG 319 - American Literature 1865-1920 (4)
- ENG 320 - American Literature 1920-1950 (4)

5. Required course

- ENG 398 - Approaches to Teaching Literature and Composition (4)

6. One 400-level capstone seminar (excluding ENG 410, 411, 412, 491 and 499).

7. At least 20 credits must be taken at Oakland.

The following courses are also required

1. Required course

- ALS 176 - The Humanity of Language (4)

2. One course in world literature selected from

- ENG 100 - Masterpieces of World Literature (4)
- ENG 111 - Modern Literature (4)
- ENG 312 - Classical Mythology (4)
- LIT 100 - Introduction to Asian Literature (4)
- LIT 181 - European Literature I (4)
- LIT 182 - European Literature II (4)

3. An introductory two-semester sequence in a foreign language, or one semester of a foreign language at the 115 level or higher, with a minimum grade of 2.0

Additional information

A program in STEP must also include a 20-28 hour secondary teaching minor and a sequence of undergraduate course work in education to include SED 300 (must be completed prior to STEP application), SED 427, FE 406, DLL 397 and RDG 338 (must be completed prior to the final internship semester). Extended study including SE 401, SED 428 and SED 455 is also required. Further details on program admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of English and the School of Education and Human Services advising office at 363 Pawley Hall, (248) 370-4182, or the School of Education and Human Services web site.

Requirements for the secondary teaching minor in English

A minimum of 24 credits in English (at least 12 credits of which must be taken at Oakland) is required, distributed as follows:

1. One course in American ethnic literature selected from

- ENG 112 - Literature of Ethnic America (4)
- ENG 341 - Selected Ethnic Literature (4)
- ENG 342 - African American Literature (4)

2. Other required courses

- ENG 211 - Introduction to Literary Studies (4)
- ENG 215 - Fundamentals of Grammar (4) or ENG 376 - History of the English Language (4)
- ENG 224 - American Literature (4)
- ENG 241 - British Literature (4)
- ENG 398 - Approaches to Teaching Literature and Composition (4) (instructor permission required; all other courses for the English teaching minor must be completed prior to ENG 398)

Additional information

Generally, a cumulative grade point average of 3.00 is required in courses included in the minor, with no single course grade below 2.0. Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education minor adviser in the department.

Departmental honors and scholarships

Departmental honors may be awarded to graduating English majors for outstanding achievement in English.

The department awards three scholarships: the Doris J. Dressler Scholarship to an English major or humanities major (junior year or beyond) demonstrating academic promise and financial need: the Roger M. and Helen Kyes Scholarship to an outstanding major; and the Eva L. Otto Scholarship for an outstanding nontraditional student. Information is available in the department office. The deadline for applications will normally be April 1.

Requirements for the liberal arts major in creative writing, B.A. program

The creative writing major requires a total of 44 credit hours, including five creative writing workshops (20 credits), two cognate courses (8 credits), and four English electives (16 credits). Students choose either the fiction, poetry, screenwriting or literary nonfiction track. One of the creative writing workshops must be a 400-level course (either ENG 410, ENG 411, ENG 413 or ENG 415); this class will provide a capstone experience and require a creative thesis (i.e., a collection of poetry or short fiction, a screenplay or a work of literary nonfiction).

Students must maintain at least a 2.8 GPA in all creative writing workshop courses and at least a 2.0 in literature courses. Only one 100-level course will be accepted for credit in the major. The 44 credits (exclusive of composition courses used to satisfy the university writing proficiency requirement) are distributed as follows:

1. Introductory course (select one)

- ENG 216 - Introductory Workshop in Creative Writing, Fiction/Poetry (4) (required for the fiction or poetry track)
- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4) (required for the screenwriting track)
- ENG 218 - Introductory Workshop in Literary Nonfiction (4) (required for the literary nonfiction track)

2. Fiction, poetry, screenwriting or literary nonfiction track (select one - A, B, C, or D)

A. Fiction Track

Required courses

- ENG 383 - Workshop in Fiction (4)
- ENG 410 - Advanced Workshop in Fiction (4)

Two additional workshop courses, chosen from

- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
- ENG 218 - Introductory Workshop in Literary Nonfiction (4)
- ENG 308 - Playwriting (4)
- ENG 384 - Workshop in Poetry (4)
- ENG 387 - Screenwriting (4)

- ENG 395 - Workshop in Literary Nonfiction (4)
- ENG 411 - Advanced Workshop in Poetry (4)
- ENG 413 - Advanced Workshop in Dramatic Writing for the Screen (4)
- ENG 415 – Advanced Workshop in Literary Nonfiction (4)

Two courses from the fiction cognates listed below

- ENG 303 - Fiction (4)
- ENG 320 - American Literature 1920-1950 (4)
- ENG 321 - American Literature 1950 to the Present (4)
- ENG 332 - Modern Fiction (4)
- ENG 334 - Contemporary Fiction (4)
- ENG 358 - British and Commonwealth Literature since 1900 (4)
- ENG 369 - The English Novel (4)

B. Poetry Track

Required courses

- ENG 384 - Workshop in Poetry (4)
- ENG 411 - Advanced Workshop in Poetry (4)

Two additional workshop courses, chosen from

- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
- ENG 218 - Introductory Workshop in Literary Nonfiction (4)
- ENG 308 - Playwriting (4)
- ENG 383 - Workshop in Fiction (4)
- ENG 387 - Screenwriting (4)
- ENG 395 - Workshop in Literary Nonfiction (4)
- ENG 410 - Advanced Workshop in Fiction (4)
- ENG 413 - Advanced Workshop in Dramatic Writing for the Screen (4)
- ENG 415 – Advanced Workshop in Literary Nonfiction (4)

Two courses from the poetry cognates listed below

- ENG 301 - Poetry (4)
- ENG 333 - Modern Poetry (4)
- ENG 335 - Contemporary Poetry (4)

OR choose one course from

- ENG 315 - Shakespeare (4)
- ENG 354 - British Medieval Literature (4)
- ENG 355 - British Literature of the Renaissance (4)
- ENG 371 - British Literature of the Romantic Period (4)

AND one course from

- ENG 301 - Poetry (4)
- ENG 333 - Modern Poetry (4)
- ENG 335 - Contemporary Poetry (4)

C. Screenwriting Track

Required courses

- ENG 387 - Screenwriting (4)
- ENG 413 - Advanced Workshop in Dramatic Writing for the Screen (4)

Two additional workshop courses, chosen from

- ENG 216 - Introductory Workshop in Creative Writing, Fiction/Poetry (4)
- ENG 218 - Introductory Workshop in Literary Nonfiction (4)
- ENG 308 - Playwriting (4)
- ENG 383 - Workshop in Fiction (4)

- ENG 384 - Workshop in Poetry (4)
- ENG 395 - Workshop in Literary Nonfiction (4)
- ENG 410 - Advanced Workshop in Fiction (4)
- ENG 411 - Advanced Workshop in Poetry (4)
- ENG 415 – Advanced Workshop in Literary Nonfiction (4)

Two courses from the screenwriting cognates listed below

- ENG 306 - Drama (4)
- ENG 307 - Modern Drama (4)
- ENG 309 - Adaptation: Fiction, Drama, Film (4)
- ENG 315 - Shakespeare (4)
- CIN 300 - History of Film: The Silent Era (4)
- CIN 301 - History of Film: The Sound Era to 1958 (4)
- CIN 302 - History of Film: The New Wave and Beyond (4)
- CIN 303 - History of Film: Into the 21st Century (4)
- CIN 314 - National Cinemas and Film Cultures (4)
- CIN 320 - Topics in Film History, Industry, and Technology (4)
- CIN 321 - Topics in Film Genres (4)
- CIN 322 - Topics in Film Authors, Authorship, and Aesthetics (4)
- CIN 325 - Understanding Media Industries (4)
- CIN 350 - Topics in Film (4)

D. Literary Nonfiction Track

Required Courses

- ENG 395 - Workshop in Literary Nonfiction (4)
- ENG 415 - Advanced Workshop in Literary Nonfiction (4)

Two additional workshop courses, chosen from

- ENG 216 - Introductory Workshop in Creative Writing, Fiction/Poetry (4)
- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
- ENG 308 - Playwriting (4)
- ENG 383 - Workshop in Fiction (4)
- ENG 384 - Workshop in Poetry (4)
- ENG 387 - Screenwriting (4)
- ENG 410 - Advanced Workshop in Fiction (4)
- ENG 411 - Advanced Workshop in Poetry (4)
- WRT 386 - Workshop in Creative Non-Fiction (4)

Two courses from the literary nonfiction cognates listed below

- ENG 209 - Modes of Self-Narrative (4)
- ENG 302 - Cultural Studies (4)
- ENG 309 - Adaptation: Fiction, Drama, Film (4)
- ENG 310 - Biography (4)
- ENG 317 - Early American Literature (4)
- ENG 318 - American Literature 1820-1865 (4)
- ENG 325 - Special Topics in Literary Nonfiction (4)
- ENG 334 - Contemporary Fiction (4)
- ENG 335 - Contemporary Poetry (4)
- AMS 300 - Topics in American Culture (4)
- CIN 311 - Studies in Documentary Film (4)
- CIN 366 - Documentary Filmmaking (4)

3. Sixteen elective credits, eight credits of which must be taken at the 300 level

Twelve of these credits must come from courses in literature; students may use the remaining four credits to take either an additional course in literature or an additional (or sixth) workshop. Two of the elective classes must be 300 level or higher, but ENG 211 can substitute for one of these 300 level courses for students in the fiction and poetry tracks; CIN 150 can substitute for one 300 level class for students in the screenwriting track.

4. At least twenty credits in English courses must be taken at Oakland.

5. An introductory two-semester sequence in a foreign language, or one semester of a foreign language at the 115 level or higher with a minimum grade of 2.0.

Requirements for the liberal arts minor in creative writing

The Liberal Arts Minor in Creative Writing requires a total of 24 credits in English and creative writing distributed as follows:

1. Choose one of the following

- ENG 216 - Introductory Workshop in Creative Writing, Fiction/Poetry (4)
- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
- ENG 218 - Introductory Workshop in Literary Nonfiction (4)

2. Choose two courses in creative writing workshops.

3. Choose three English courses.

Additional information

Students must maintain at least a 2.8 GPA in all creative writing workshops and at least a 2.0 in literature courses. Only one 100-level course will be accepted for credit in the minor.

Note

Students using this catalog to meet creative writing major requirements may also use any course subsequently approved as satisfying requirements under the various workshop and cognate elective course options and published in a later catalog.

Program Honors in Creative Writing

Departmental honors may be awarded to graduating creative writing majors for outstanding achievement.

Cinema Studies, B.A.

(248) 370-2250
Program Website: oakland.edu/cinemastudies/

Cinema studies at Oakland University is dedicated to the interdisciplinary investigation of the ways in which motion pictures are created, experienced and valued in our culture and around the world. Students in cinema studies will work closely with OU faculty to gain a thorough understanding of film history, become acquainted with various critical approaches to the study of film and receive instruction in elements of film production. This wide-ranging and intensive program will provide cinema studies majors and minors with the critical-thinking and communication skills to enter careers within the film industry and a variety of other professions. In addition, students will be well-prepared to pursue cinema studies or other academic disciplines at the graduate level.

Requirements for the liberal arts major in cinema studies, B.A. program

The cinema studies major shall require a total of 48 credit hours. Only 16 transfer credits may be counted towards the cinema studies major. Only courses in which the student has earned a grade of at least a 2.0 may be counted towards the cinema studies major.

1. One introductory-level course selected from

- CIN 150 - Introduction to Film (4)
- ENG 250 - Film and Formal Analysis (4)

2. Three required courses

- CIN 165 - Introduction to Filmmaking (4)
- CIN 252 - Methods of Cinema Studies (4)
- CIN 315 - Film Theory and Criticism (4)

3. Two courses in film history selected from

- CIN 300 - History of Film: The Silent Era (4)
- CIN 301 - History of Film: The Sound Era to 1958 (4)
- CIN 302 - History of Film: The New Wave and Beyond (4)
- CIN 303 - History of Film: Into the 21st Century (4)

4. One additional course in filmmaking or screenwriting selected from

- CIN 265 - Form and Meaning in Filmmaking (4)
- ENG 387 - Screenwriting (4)

5. Four courses in cinema studies electives selected from

- AH 367 - Film and the Visual Arts (4)
- AN 307 - Culture and Society Through Film (4)
- CIN 265 - Form and Meaning in Filmmaking (4)
- CIN 300 - History of Film: The Silent Era (4)
- CIN 301 - History of Film: The Sound Era to 1958 (4)
- CIN 302 - History of Film: The New Wave and Beyond (4)
- CIN 303 - History of Film: Into the 21st Century (4)
- CIN 311 - Studies in Documentary Film (4)
- CIN 312 - Experimental and Avant-Garde Film (4)
- CIN 314 - National Cinemas and Film Cultures (4)

- CIN 320 - Topics in Film History, Industry, and Technology (4)
- CIN 321 - Topics in Film Genres (4)
- CIN 322 - Topics in Film Authors, Authorship, and Aesthetics (4)
- CIN 325 - Understanding Media Industries (4)
- CIN 350 - Topics in Film (4)
- CIN 365 - Topics in Filmmaking (4)
- CIN 366 - Documentary Filmmaking (4)
- CIN 367 - Narrative Filmmaking (4)
- CIN 368 - Experimental Filmmaking (4)
- CIN 415 - Advanced Topics in Film Theory (4)
- CIN 450 - Advanced Topics in Film (4)
- CIN 485 - Field Internship in Cinema Studies (4)
- CIN 499 - Independent Study (1 to 4)
- COM 375 - Rise of Electronic Media (4)
- COM 387 - Media, Gender and Sexuality (4)
- ENG 260 - Masterpieces of World Cinema (4)
- ENG 309 - Adaptation: Fiction, Drama, Film (4)
- ENG 387 - Screenwriting (4)
- LIT 251 - Studies in Foreign Film (4)
- PS 309 - Politics Through Film (4)

Note
No more than two non-CIN designated courses in this category may be counted toward the cinema studies major.

6. One capstone course selected from

- CIN 415 - Advanced Topics in Film Theory (4)
- CIN 450 - Advanced Topics in Film (4)

Requirements for the liberal arts minor in cinema studies

A minimum of 24 credits in cinema studies courses is required, to be distributed as shown below. At least 16 credits from offerings in cinema studies must be taken at Oakland. Only courses in which a student has earned at least a 2.0 may be counted toward the cinema studies minor.

1. One introductory-level course selected from

- CIN 150 - Introduction to Film (4)
- ENG 250 - Film and Formal Analysis (4)

2. Two required courses

- CIN 252 - Methods of Cinema Studies (4)
- CIN 315 - Film Theory and Criticism (4)

3. Two courses in film history selected from

- CIN 300 - History of Film: The Silent Era (4)
- CIN 301 - History of Film: The Sound Era to 1958 (4)
- CIN 302 - History of Film: The New Wave and Beyond (4)
-
- CIN 303 - History of Film: Into the 21st Century (4)

4. One course in cinema studies electives selected from

- AH 367 - Film and the Visual Arts (4)
- AN 307 - Culture and Society Through Film (4)
- CIN 165 - Introduction to Filmmaking (4)
- CIN 265 - Form and Meaning in Filmmaking (4)
- CIN 311 - Studies in Documentary Film (4)
- CIN 312 - Experimental and Avant-Garde Film (4)
- CIN 314 - National Cinemas and Film Cultures (4)
- CIN 320 - Topics in Film History, Industry, and Technology (4)
- CIN 321 - Topics in Film Genres (4)
- CIN 322 - Topics in Film Authors, Authorship, and Aesthetics (4)
- CIN 325 - Understanding Media Industries (4)
- CIN 350 - Topics in Film (4)
- CIN 365 - Topics in Filmmaking (4)
- CIN 366 - Documentary Filmmaking (4)
- CIN 367 - Narrative Filmmaking (4)
- CIN 368 - Experimental Filmmaking (4)
- CIN 415 - Advanced Topics in Film Theory (4)
- CIN 450 - Advanced Topics in Film (4)
- COM 375 - Rise of Electronic Media (4)
- COM 387 - Media, Gender and Sexuality (4)
- ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
- ENG 260 - Masterpieces of World Cinema (4)
- ENG 309 - Adaptation: Fiction, Drama, Film (4)
- ENG 387 - Screenwriting (4)
- LIT 251 - Studies in Foreign Film (4)
- PS 309 - Politics through Film (4)

Program Honors in Cinema studies

Departmental honors may be awarded to graduating cinema studies majors for outstanding achievement.

Course Offerings

Courses on the 100 level are directed to students seeking non-technical, liberally oriented courses to fulfill general education requirements or for use in minors and particular concentrations. Courses on the 200 level offer broad introductions to literary materials and approaches basic to the study of English. Reading is often extensive and the classes are conducted primarily through lecture. Courses on the 300 level offer more intensive investigations into particular areas of English studies. These courses, the core of the program for majors, are open to advanced students according to their special needs and their preparation in related disciplines. Courses on the 400 level apply theory and methods of literary history, criticism and research to writers and to problems presented by specific topics. They are designed for upper-class majors. Graduate courses on the 500 level are open to senior majors by permission of the instructor and the departmental chairperson.

Course prerequisites

Except where noted, 100- and 200-level courses have no prerequisites. Advanced courses (numbered 300 to 499) have a general prerequisite of writing proficiency, plus any special requirements listed with the course descriptions.

CINEMA STUDIES

CIN 150 - Introduction to Film (4)
Introduction to the art of film by examination of the filmmaking process, study of narrative and non-narrative film, and exploration of film's relation to society. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

CIN 165 - Introduction to Filmmaking (4)
Introduction to digital film production through group projects.
Prerequisite(s): CIN 150 or ENG 250; cinema studies major or minor standing.

CIN 252 - Methods of Cinema Studies (4)
Introduction to the academic study of film, with special emphasis on scholarly research and formal writing. Film screening lab may be required. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): CIN 150 or ENG 250; WRT 160 with a grade of 2.0 or higher.

CIN 265 - Form and Meaning in Filmmaking (4)
Through group projects and individual editing, students explore formal methods of creating meaning in shots, sequences and short films.
Prerequisite(s): CIN 165; permission of instructor.

CIN 300 - History of Film: The Silent Era (4)
Survey of directors and films important in shaping film history: Griffith, Eisenstein, Chaplin, Mumau, Pabst, Lang and others. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 301 - History of Film: The Sound Era to 1958 (4)
Examination of significant directors, genres and movements: Welles, Hitchcock, Renoir, DeSica and others; the western, gangster film, musical, neorealism, film noir. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 302 - History of Film: The New Wave and Beyond (4)
Study of film since 1959, including directors such as Godard, Truffaut, Akerman, Fassbinder, Herzog, Wertmuller, Bergman, Altman, Kubrick and Scorsese. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 303 - History of Film: Into the 21st Century (4)
Study of developments in film since the late 1980s, including topics such as Hollywood cinema, independent film-making, experimental films, feminist cinema, national cinema, and new technologies such as digital imaging. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 311 - Studies in Documentary Film (4)
Examination of the history of documentary film-making. Additional focus on aesthetic and industrial practices. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 312 - Experimental and Avant-Garde Film (4)
Historical examination of those forms of motion picture expression that fall outside of mainstream commercial filmmaking. Additional focus on aesthetic and artisanal practices. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 314 - National Cinemas and Film Cultures (4)
Film movements and cinema cultures from outside of the United States. National contexts vary and may be repeated under different subtitle for credit. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250 with a grade of 2.0 or higher.

CIN 315 - Film Theory and Criticism (4)
Survey of major critical approaches to the academic study of film, such as those theoretical models proposed by Eisenstein, Kracauer, Arnheim, Bazin, Sarris and Metz. Film screening lab may be required.
Prerequisite(s): CIN 252.

CIN 320 - Topics in Film History, Industry, and Technology (4)
Close examination of one or more of the major artistic, industrial or cultural trends shaping film history. Topics explored may include film censorship, art cinemas, the history of cinema technology, historiography. May be repeated under different subtitle for credit. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 321 - Topics in Film Genres (4)
Focus on the formation, function and analysis of film genres, with emphasis on individual types, such as the western, horror, romantic comedy, melodrama, or others. Topics to be selected by instructor. May be repeated under different subtitle for credit. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 322 - Topics in Film Authors, Authorship, and Aesthetics (4)
Examination of historical and aesthetic issues related to the creation of motion pictures. May focus on individual film directors or other individuals, groups, and institutions involved in the filmmaking process. Topics to be selected by instructor. May be repeated under different subtitle for credit. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 325 - Understanding Media Industries (4)
Examination of local, regional, national and global film and media industry practices and communities, with emphasis upon the emergence and impact of key trends in these fields. Film screening lab may be required. Identical with COM 386.
Prerequisite(s): CIN 150 or ENG 250.

CIN 350 - Topics in Film (4)
Examination of specialized subjects in film. May be repeated for credit under separate sub-headings. Film screening lab may be required.
Prerequisite(s): CIN 150 or ENG 250.

CIN 365 - Topics in Filmmaking (4)
Examination of specialized subjects in film production, such as post-production and visual effects, cinematography, sound design, and film titles and credit sequences. Topics to be selected by instructor. May be repeated for credit under different subtitle.
Prerequisite(s): CIN 165.

CIN 366 - Documentary Filmmaking (4)
Introduction to documentary film pre-production, production, and post-production. Additional emphasis upon how documentary film aesthetics shape audience experience.
Prerequisite(s): CIN 165.

CIN 367 - Narrative Filmmaking (4)
Different forms and conventions of narrative filmmaking. Relevant aesthetic concepts and technical skills will be put into practice through the production of original short-form narrative films.
Prerequisite(s): CIN 265.

CIN 368 - Experimental Filmmaking (4)
Range of experimental filmmaking techniques, with a focus on aesthetic practices that fall outside of mainstream commercial filmmaking.
Prerequisite(s): CIN 265.

CIN 415 - Advanced Topics in Film Theory (4)
Close examination of one or more theoretical approaches used to analyze film texts. May be repeated under different subtitle for additional credit. Film screening lab may be required. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): CIN 150 or ENG 250; CIN 252; CIN 315; permission of instructor.

CIN 450 - Advanced Topics in Film (4)
Specialized topics in film history, theory and research methods. Film screening lab may be required. May be repeated for credit under different subtitle. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): CIN 315 or permission of instructor.

CIN 485 - Field Internship in Cinema Studies (4)
Field internship for cinema studies majors under faculty supervision. Academic project that incorporates student performance in an occupational setting. May not be repeated for credit.
Prerequisite(s): CIN 150 or ENG 250; junior/senior standing; 16 credits in cinema studies courses, with 8 at the 300-400 level; and instructor permission.

CIN 499 - Independent Study (1 to 4)
Study on an independent basis for students with demonstrated interest in film. A proposed course of study must be submitted to the prospective instructor in the semester before the independent study is to be taken.
Prerequisite(s): one course in film.

ENGLISH

ENG 100 - Masterpieces of World Literature (4)
A survey acquainting the student with some of the great literature of the world. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 105 - Introduction to Shakespeare (4)
A general introduction to representative dramatic works of Shakespeare. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 111 - Modern Literature (4)
General introduction to modern literature, which can include works written from the early twentieth century to the present, with some attention to literary form and to the way in which literature reflects culture. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 112 - Literature of Ethnic America (4)
Studies in literature about the American ethnic heritage including examples from such sources as African-American, Native American and American immigrant literatures. Satisfies the university general education requirement in the literature knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

ENG 200 - Topics in Literature and Language (4)
Topics or problems selected by the instructor.

ENG 209 - Modes of Self-Narrative (4)
Explores the construction of literary self-narratives with emphasis on written texts and developments in electronic media.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 211 - Introduction to Literary Studies (4)
Introduction to literary research, the writing conventions of literary criticism, and the critical analysis of drama, prose fiction, and poetry. Required for the English major and minor. Prerequisite for the 300-level literary history and capstone courses.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher and English major or minor standing.

ENG 215 - Fundamentals of Grammar (4)
A thorough introduction to basic grammatical forms and structures, drawing upon a variety of approaches and models.
Prerequisite(s): WRT 160 or equivalent.

ENG 216 - Introductory Workshop in Creative Writing, Fiction/Poetry (4)
Entry level creative writing workshop in fiction writing and poetry.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 217 - Introductory Workshop in Dramatic Writing for the Screen and Television (4)
Entry level creative writing workshop in screen and television writing.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 218 - Intro to Literary Nonfiction (4)
Introduction to the genre of literary nonfiction through the study of short examples and by writing in three categories of literary nonfiction: memoir, personal essay, and special topics essays on topics such as travel, food, and health.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 224 - American Literature (4)
Introduction to literary analysis and appreciation through readings in the American literary tradition. Emphasis on such authors as Hawthorne, Melville, Dickinson and James. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 241 - British Literature (4)
Introduction to literary analysis and appreciation through readings in the British literary tradition. Emphasis on such authors as Chaucer, Shakespeare and Dickens. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 250 - Film and Formal Analysis (4)
Exploration of the dramatic and narrative content of classic and modern films, treating such elements as theme, motif, symbol, imagery, structure and characterization, as well as cultural and philosophical implications. Satisfies the university general education requirement in the literature knowledge exploration area.

ENG 260 - Masterpieces of World Cinema (4)
Examination of a range of cinematic traditions, historical trends, and national film movements from around the globe. Satisfies the university general education requirement in the global perspective knowledge exploration area.

ENG 300 - Special Topics in Literature and Language (4)
Special problems or topics selected by the instructor.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 301 – Poetry (4)
The major forms of poetic expression studied from generic and historical points of view.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 302 - Cultural Studies (4)
The interaction of texts and cultural contexts, studied from diverse perspectives - aesthetic, economic, historical and technological. Texts may be literary, filmic, televisual, musical.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 303 – Fiction (4)
The major forms of narrative fiction (short story, novella, novel) studied from generic and historical points of view. Satisfies the university general education requirement in the literature knowledge exploration area.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher and junior standing.

ENG 304 - Studies in Literary Mode (4)
A major literary mode (such as tragedy, comedy, epic, romance, satire) studied from generic and historical points of view.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 305 - The Bible as Literature (4)
Emphasis on the artistic, imaginative and historical aspects of the Bible. Identical with REL 353. Satisfies the university general education requirement in the literature knowledge exploration area.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher and junior standing.

ENG 306 – Drama (4)
Major forms of dramatic expression studied from generic and historical points of view. Satisfies the university general education requirement in the literature knowledge exploration area.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher and junior standing.

ENG 307 - Modern Drama (4)
Studies in English, American and Continental drama since Ibsen.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 308 – Playwriting (4)
Creative writing for the theatre, emphasizing fundamentals of scene, character, and dialogue development. Identical with THA 340.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 309 - Adaptation: Fiction, Drama, Film (4)
Examination of how works of fiction and drama are transformed into film, including focus on creative and industrial practice. Satisfies the university general education requirement in knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the literature knowledge exploration area.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 310 – Biography (4)
The study of biography as a form of literary art, considering both theory and practice. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the Western civilization knowledge exploration area.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 311 – Chaucer (4)
The major works, with emphasis on The Canterbury Tales and Troilus and Criseyde.
Prerequisite(s): ENG 211.

ENG 312 - Classical Mythology (4)
The principal Greek and Roman myths and their uses in classical and post-classical art and literature. Satisfies the university general education requirement in the literature knowledge exploration area.
Prerequisite(s): junior standing.

ENG 313 - Myth In Literature (4)
Study of the mythic content and/or structure of literature.

ENG 314 - Folklore in Literature (4)
Reflection of folk themes, images and structures in British and American literature by authors such as Twain, Faulkner, Hardy and Joyce.

ENG 315 – Shakespeare (4)
Reading and discussion of representative plays and poetry.
Prerequisite(s): ENG 211.

ENG 316 – Milton (4)
His major poetry, with emphasis on Paradise Lost and some attention to his prose.
Prerequisite(s): ENG 211.

ENG 317 - Early American Literature (4)
Studies in colonial and early national American literature, with emphasis on such writers as Bradstreet, Taylor, Edwards and Franklin.
Prerequisite(s): ENG 211.

ENG 318 - American Literature 1820-1865 (4)
Studies in American prose and poetry of the pre-Civil War period, with emphasis on such writers as Emerson, Hawthorne, Melville, Thoreau and Whitman.
Prerequisite(s): ENG 211.

ENG 319 - American Literature 1865-1920 (4)
Studies in American prose and poetry from the Civil War through World War I, with emphasis on such writers as Twain, James and Dickinson.
Prerequisite(s): ENG 211.

ENG 320 - American Literature 1920-1950 (4)
Studies in American literature of the modern period.
Prerequisite(s): ENG 211.

ENG 321 - American Literature 1950 to the Present (4)
Studies in American fiction, poetry, and drama from 1950 to the present.
Prerequisite(s): ENG 211.

ENG 324 - Issues In American Literature (4)
Study of literary works ranging across period and/or genre in their relation to a central issue, theme or problem in American literature. Representative topics are romanticism, the Puritan tradition, American humor and the writer and American society.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 325 - Special Topics in Literary Nonfiction (4)
Special topics in literary nonfiction selected by the instructor. May be repeated for additional credit under different subtitle.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 332 - Modern Fiction (4)
Studies in fiction of the first half of the 20th century. This course may emphasize British, American or international fiction in any given semester.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 333 - Modern Poetry (4)
Studies in poetry since the beginning of the 20th century. Course may emphasize American or British poetry or discuss international currents in modern poetry.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 334 - Contemporary Fiction (4)
Narrative literature from 1950 to the present day.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 335 - Contemporary Poetry (4)
Poetry from 1950 to the present day.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 340 - Studies in Contemporary Literature (4)
Literature since World War II. This course may emphasize a particular theme, genre or nationality.

ENG 341 - Selected Ethnic Literature (4)
Reading and critical analysis of representative selections from American ethnic literature. Special attention to groupings such as American-Jewish and Native American at discretion of instructor. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 342 - African American Literature (4)
Study of African American literary history, including the evolution of form through slave narrative, sentimental fiction, political protest, to contemporary writing, authors may include Douglass, Jacobs, Chesnutt, Du Bois, Ellison, Petry and Morrison. Satisfies the university general education requirement in the knowledge application integration area.
Prerequisite for knowledge application integration: completion of the university general education requirement in the literature knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 343 - Irish Literature (4)
Study of Irish literature with special attention to the Irish political experience and questions of what constitutes a national literature. Authors may include Swift, Edgeworth, Yeats, Lady Gregory, Joyce or Friel.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 344 - Postcolonial Literature (4)
Postcolonial literature and theory from its origins to the present. May include works from Africa, Southeast Asia, the Middle East, and/or the Americas, either written in English or studied in translation.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 350 - Topics in Film (4)
Topic or problem to be selected by the instructor. May be repeated under different subtitle.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 354 - British Medieval Literature (4)
Development of Old and Middle English literature to about 1500. Emphasis on the major works from Beowulf to Chaucer and Malory.
Prerequisite(s): ENG 211.

ENG 355 - British Literature of the Renaissance (4)
Literature from about 1500 to 1660. Emphasis on the development of the sonnet and lyric, drama, prose and epic. Consideration of such major authors as Sidney, Donne, Shakespeare and Milton.
Prerequisite(s): ENG 211.

ENG 357 - British Literature from the Victorian Period to the Early 20th Century (4)
From the Victorians to the 1920s. Authors may include Bronte, Tennyson, Browning, Dickens, Eliot, Hardy, Arnold, Carlyle, Rossetti, Shaw, Lawrence, Yeats and Woolf.
Prerequisite(s): ENG 211.

ENG 358 - British and Commonwealth Literatures since 1900 (4)
British and Commonwealth literature since 1900. Authors may include Joyce, Woolf, Eliot, Rhys, Beckett, Rao and Achebe.
Prerequisite(s): ENG 211.

ENG 369 - The English Novel (4)
A study of the origin and development of the English novel from its beginnings to the early twentieth century. Among the novelists to be considered are Fielding, Richardson, Austen, Dickens, Conrad, Lawrence and Joyce.
Prerequisite(s): ENG 211.

ENG 370 - British Literature of the Restoration and 18th Century (4)
Prose, poetry and drama from 1660 to the Romantic Revolutions. Consideration of such major authors as Dryden, Swift, Pope and Johnson.
Prerequisite(s): ENG 211.

ENG 371 - British Literature of the Romantic Period (4)
Prose and poetry from the age of Austen, Blake, Wordsworth, Bryon, Shelley and Keats.
Prerequisite(s): ENG 211.

ENG 375 - Studies in Modern Literature (4)
Literature of the first half of the 20th century. This course may emphasize a particular theme, genre or nationality.

ENG 376 - History of the English Language (4)
A detailed survey of the English language from its beginning to modern times. Identical with LIN 376.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 380 - Advanced Critical Writing (4)
Focus on the process of critical thinking to develop analytical writing skills. Required for English STEP majors and minors. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

ENG 383 - Workshop in Fiction (4)
Creative writing workshop, with emphasis on narrative.
Prerequisite(s): ENG 216.

ENG 384 - Workshop in Poetry (4)
Creative writing workshop, with emphasis on both traditional and experimental poetic forms.
Prerequisite(s): ENG 216.

ENG 387 – Screenwriting (4)
Creative writing for motion pictures emphasizing fundamentals of scene construction, characterization, and dialogue creation. Prerequisite (s): ENG 217 and CIN 150 or ENG 250.

ENG 388 - Workshop in Dramatic Writing for Television (4)
Creative writing workshop with an emphasis on writing for television.
Prerequisite(s): ENG 217.

ENG 391 - Literary Theory, Early 20th Century to the Present (4)
The development of literary theory, presented as a survey. Applications of theory in critical practice will be considered.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 392 - Film Theory and Criticism (4)
Study of major critical approaches to film such as those of Eisenstein, Kracauer, Arnheim, Bazin, Sarris and Metz.
Prerequisite(s): A course in film.

ENG 395 - Intro to Literary Nonfiction (4)
Introduction to the genre of literary nonfiction through the study of short examples and by writing in three categories of literary nonfiction: memoir, personal essay, and special topics essays on topics such as travel, food, and health.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 397 - Special Topics in Literature and Language (1)
Special problems or topics selected by the instructor. Intended for programs in study abroad.

ENG 398 - Approaches to Teaching Literature and Composition (4)
Introduction to teaching literature and composition. Topics include the reading and writing processes, adolescent literature, media and the language arts, and spoken language. For students planning to apply to the secondary education program (STEP). To be taken in the winter semester prior to applying. Prerequisite: WRT 160 with a grade of 3.0 or higher and permission of instructor.

ENG 400 - Advanced Topics in Literature and Language (4)
Advanced topics and problems selected by the instructor. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for writing intensive in the major area. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 401 - Studies in Literary Kinds (4)
The study of a single literary kind, whether genre (such as novel, lyric or drama) or mode (such as tragedy or comedy). May be repeated under different subtitle. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 410 - Advanced Workshop in Fiction (4)
Creative writing workshop in fiction. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): ENG 383 or permission of instructor.

ENG 411 - Advanced Workshop in Poetry (4)
Creative writing workshop in poetry. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): ENG 384 or permission of instructor.

ENG 412 - Advanced Playwriting (4)
Identical with THA 440. May be repeated once for credit.
Prerequisite(s): ENG 308 or THA 340. English and theatre majors (or minors). Permission of instructor.

ENG 413 - Advanced Workshop in Dramatic Writing for the Screen (4)
Advanced creative writing workshop in screenwriting. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): ENG 387 and permission of instructor.

ENG 414 - Advanced Workshop in Dramatic Writing for Television (4)
Advanced creative writing workshop in writing for television. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): ENG 388 and permission of instructor.

ENG 415 - Adv Workshop Literary Nonfiction (4)
Continuation of ENG 385, including study of classic literary essays by various authors. Prerequisite(s): ENG 395 or permission of instructor.

ENG 420 - Trans-Atlantic Traditions (4)
Studies of the relations between the British and American literary traditions. May emphasize a theme, a period, or particular authors. May be repeated for credit under different subtitle. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 453 - Studies in Major Authors (4)
Intensive study of a selected group of authors: British, American or both. May be repeated for credit with different authors. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 465 - Shakespeare Seminar (4)
Analysis of four or five of the plays. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 491 – Internship (4)
Practical experience in appropriate work position at an approved site, correlated with directed study assignments. In the semester prior to enrollment, the student will plan the internship in conjunction with the instructor and with the approval of the department chair. A final analytical paper will be required. May be repeated once in a different setting for elective credit only.
Prerequisite(s): 16 credits in English, of which at least 8 must be at the 300-400 level, and permission of the instructor and the department chair.

ENG 499 - Independent Study (2 or 4)
A proposed course of study must be submitted to the prospective instructor in the semester before the independent study is to be taken. Only 8 credits of 499 may apply toward the major and only 4 credits may apply toward the minor. May be elected on an S/U basis.
Prerequisite(s): four courses in English and permission of instructor.

Environmental Science Program

260A SCIENCE AND ENGINEERING BUILDING (248) 370-2320
Fax: (248) 370-2321
Program Website: oakland.edu/chemistry/undergraduate-programs/environmental-science/

Director: *Linda Schweitzer (Chemistry)*

Faculty: *Marcella Colling, Gaylon Jolley, Jim Leidel, D. David Newlin, Linda Schweitzer, David Szlag, Wendy Wilson*

Designed to integrate applied scientific specialties within the broad field of environmental science, the environmental science curricula prepare students for a variety of professional opportunities in government as well as the private sector, and for graduate study in such fields as toxic substance management, public health, toxicology, remediation, restoration, energy and sustainability and environmental planning.

Graduates of the program should be able to identify and evaluate a broad range of environmental problems. In addition, they should be able to offer solutions, anticipate hazards and prevent future problems. Studies include such areas as health in the workplace, toxic substance regulations, applied ecology, pollution prevention, air resources, water resources and public environmental policy.

Requirements for the B.S. degree

To earn a Bachelor of Science degree with a major in environmental science, students must complete a minimum of 124 credits including:

1. An introductory prerequisite core (minimum of 32 credits) including

a. Required courses in biology

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)

b. Required courses in chemistry

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)

c. Required courses in physics

- PHY 101 - General Physics I (4) and PHY 110 - General Physics Lab I (1) (or PHY 151 and PHY 110)

d. Eight credits of mathematics above MTH 121 or statistics (STA 225 recommended)

2. Core requirements (minimum of 15 credits) including

- BIO 301 - Ecology (5)
- ENV 308 - Introduction to Environmental Studies (4)
- ENV 461 - Environmental Law and Policies (3)
- ENV 470 - Environmental Science Internship (3) (satisfies the requirements for the capstone experience and writing intensive course in the major)

3. Complete one of the specializations described below.

Specialization includes a minimum of 28 credits and must be approved by the program director. At least 16 of the credits taken at the 300 level or above must be taken at Oakland University.

Specialization in environmental health (minimum of 28 credits)

Based upon an extensive curriculum planning study, this option combines environmental and occupational health perspectives in scientific and technical courses designed to provide pre-professional training for careers relating human health and safety factors to working conditions. Students learn to recognize, evaluate and control actual and potential environmental hazards.

Many opportunities exist at local and state levels of government to improve health and environmental quality, focusing on toxic substance control, food protection, water quality, and waste management. Students may also pursue careers in environmental consultancy or industry, such as occupational safety and health, risk assessment, and waste management. This specialization is also designed to adequately prepare students for further pursuits of graduate studies in the fields of toxicology, public health, and environmental chemistry.

Required coursework includes

- BIO 207 - Human Physiology (4) or BIO 321 - Medical Physiology (4)
- BIO 307 - Introduction to Human Microbiology (4) or BIO 319 - General Microbiology (4)
- BIO 325 - Biochemistry I (4)
- CHM 234 - Organic Chemistry I (4)
- ENV 355 - Public and Environmental Health (3)
- ENV 368 - Fundamentals of Hazardous Materials Regulations (3) or ENV 386 - Principles of Occupational Health (3)
- ENV 452 - Environmental Management Systems (3)
- ENV 446 - Industrial and Environmental Toxicology (3) or OSH 446 - Industrial and Environmental Toxicology (3)

Specialization in environmental sustainability and resource management (minimum of 28 credits)

This option emphasizes the wise use of resources, especially as they affect human health and well-being. Program electives offer training for a variety of field and laboratory opportunities including planning, resource management, environmental protection and public policy.

1. Required coursework includes

- BIO 303 - Field Biology (4) or BIO 373 - Field Botany (4) or ENV 375 - Introduction to Apiculture and Sustainability (4)
- ENV 309 - Principles of Geology (3)
- ENV 312 - Energy and the Environment (4)
- ENV 370 - Principles of Soil Science (4)
- ENV 373 - Water Resources (3)
- ENV 480 - Biogeochemical Cycling (3)

2. Recommended electives include

- Any ENV non-core course
- BIO 311 - Botany (4)
- BIO 471 - Stream Ecology (3)
- CHM 234 - Organic Chemistry I (4)
- CHM 410 - Environmental Chemistry (3)
- CHM 413 - Environmental Aquatic Chemistry (3)
- AN 410 - Human Adaptation (4)
- ENV 322 - The Food Quest (4) or AN 322 - The Food Quest (4)
- ENV 354 - Global Environmental Governance (4) or PS 354 - Global Environmental Governance (4)

Notes

Elective courses for the environmental sustainability and resource management specialization must be approved by the program director.

Students using this catalog to meet the environmental studies major requirements may also use any course subsequently approved under the recommended electives and published in a later catalog.

Major standing

Major standing must be achieved three semesters before graduation, and before a student reaches senior status, otherwise graduation may be delayed.

Requirements for the liberal arts minor in environmental science

A minimum of 22 credits are required for the environmental science minor distributed as follows:

1. Required courses

- ENV 308 - Introduction to Environmental Studies (4)
- ENV 452 - Environmental Management Systems (3)
- ENV 461 - Environmental Law and Policies (3)

2. 12 credits of electives approved by the program director

Note

An approved concentration/minor authorization form must be filed three semesters prior to graduation.

Environmental Studies Concentration

Coordinator: Linda Schweitzer (Chemistry)

The concentration in environmental studies introduces students to the newer interdisciplinary perspectives needed to address today's environmental problems. Short- and long-range implications of human activities are analyzed, with emphasis on the technical and scientific issues.

Requirements for the concentration are a minimum of 28 credits in a planned and approved program of advanced courses built on introductory work in biology, chemistry, mathematics and physics. Typically, the 28 credits would include:

Environmental studies concentration suggested coursework

Core course

- ENV 308 - Introduction to Environmental Studies (4)

Sixteen credits of coursework at the 300 level or above selected from at least three rubrics including ENV

Recommended courses outside ENV rubric include:

- AN 410 - Human Adaptation (4)
- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 311 - Botany (4)
- BIO 361 - Permaculture (4)
- BIO 373 - Field Botany (4)
- CHM 410 - Environmental Chemistry (3)

- CHM 412 - Atmospheric Chemistry (3)
- CHM 413 - Environmental Aquatic Chemistry (3)
- PS 350 - Public Administration (4)
- PS 353 - American Public Policy (4)
- PS 354 - Global Environmental Governance (4)
- AN 322 - The Food Quest (4)

Additional Information
At least 16 credits must be in non-duplicative coursework with another major.
A Concentration/Minor Authorization Form with an approved set of courses must be filed at least two semesters prior to graduation. Consult the program coordinator for details about course sequences and scheduling. See course descriptions for ENV course offerings.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

ENVIRONMENTAL STUDIES

ENV 308 - Introduction to Environmental Studies (4)
Survey of a broad range of environmental issues from a scientific viewpoint. Basic ecological and thermodynamic principles with applications to air, water and land pollution; human demography and food supplies; alternative futures. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): sophomore standing.

ENV 309 - Principles of Geology (3)
Basic concepts of geology including rocks and minerals; weathering processes and products; hydrogeology and surface hydrology; erosion, sedimentation, and transport; oil, gas, ore, and mineral formation, exploration, and exploitation; and environmental issues.

ENV 310 - Economics of the Environment (3)
Identical with ECN 310.
Prerequisite(s): ECN 150 or 201 or 210.

ENV 312 - Energy and the Environment (4)
Basic facts of energy: sources, forms, the roles it plays, and its ultimate fate. Includes study of laws limiting energy utilization, energy flow patterns, effects of energy use on the environment and analyses of current energy-related problems.
Prerequisite(s): sophomore standing; mathematics proficiency at the MTH 061 level.

ENV 322 - The Food Quest (4)
Identical with AN 322.

ENV 350 - Selected Topics (1 to 4)
Technical studies in special areas; topics vary with semester. May be repeated for credit.
Prerequisite(s): junior standing and permission of instructor.

ENV 352 - Geographic Information System Analysis for Sustainability (4)
Identical with PS 352.

ENV 354 - Global Environmental Governance (4)
Identical with PS 354. Satisfies the university general education requirement in the knowledge application integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the social science knowledge explanation area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing area: completion of the university writing foundation requirement.

ENV 355 - Public and Environmental Health (3)
Emphasizing a public health perspective, this course surveys human health issues along with control strategies to reduce risk. Topics include: epidemiology, disease vectors, drinking water, occupational health, food protection, solid and hazardous wastes.
Prerequisite(s): sophomore standing.

ENV 364 - Hazardous Materials Emergency Response (3)
Review of standard operating procedures when dealing with responses to hazardous materials incidents. Planning procedures, policies and application of procedures for incident levels, personal protective equipment, decontamination, safety, communications and governmental reporting are stressed.
Prerequisite(s): sophomore standing.

ENV 368 - Fundamentals of Hazardous Materials Regulations (3)
An introduction to the regulations governing the manufacture, use, storage, transportation, treatment and disposal of hazardous materials. Related management issues of liability, compliance, ethics, assessment, remediation and clean-ups will be discussed.
Prerequisite(s): sophomore standing; ENV 386 recommended.

ENV 370 - Principles of Soil Science (4)
Soil science, weathering processes, weathering products, soil mineralogy, nutrients and trace elements, soil use and management. Field and lab work accompany lecture.

ENV 373 - Water Resources (3)
Analysis of natural water systems, introductory hydrology, the chemistry of eutrophication, and wastewater systems. Emphasis is on applications, including water pollution abatement and management strategies.
Prerequisite(s): CHM 145 and 148 (or CHM 158) and sophomore standing.

ENV 375 - Introduction to Apiculture and Sustainability (4)
Beekeeping, bee biology, and bee biochemistry, general hive maintenance, and the use of apiculture in sustainable agricultural practices. Field work accompanies lecture.
Prerequisite(s): BIO 113 with a grade of 2.0 or greater.

ENV 386 - Principles of Occupational Health (3)
Recognition, evaluation and control of chemical and physical stresses in the workplace that may adversely affect human health.
Prerequisite(s): sophomore standing; BIO 113, CHM 234, Physics is desirable.

ENV 387 - Industrial Hygiene Field Survey (3)
Selected subjects of current interest in occupational and environmental health and review of occupational health programs at local industrial companies through site visits.
Prerequisite(s): ENV 386 recommended.

ENV 388 - Occupational Health Control Methods (3)
Theory and practice in the control of occupational health hazards, including personal protective equipment, noise, radiation, ventilation and engineering design.
Prerequisite(s): ENV 386 recommended.

ENV 389 - African Environmental History (4)
Identical with HST 389.
Prerequisite(s): WRT 160.

ENV 390 - Directed Studies (1 to 6)
Studies in special areas, often individually arranged. May be repeated for credit. Preparation of study plan and instructor's approval are required before registration. Graded S/U.
Prerequisite(s): permission of instructor.

ENV 410 - Human Adaptation (4)
Identical with AN 410.

ENV 446 - Industrial and Environmental Toxicology (3)
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, biotransformations, mechanisms of toxicity, dose-response relationships and factors influencing toxicity. Identical with EHS 446. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): CHM 234 or permission of instructor.

ENV 452 - Environmental Management Systems (3)
Problems of air and water pollution, solid waste management, hazardous material handling, life cycle analyses and pollution control examined from several viewpoints. Solutions to pollution problems, control technologies, practical aspects and compliance with regulations.
Prerequisite(s): sophomore standing, CHM 145 and CHM 148 (or CHM 158).

ENV 461 - Environmental Law and Policies (3)
Legislative and legal perspectives on environmental and occupational health issues. Special emphasis on current laws and regulations, as well as their impact on the groups regulated.
Prerequisite(s): sophomore standing.

ENV 470 - Environmental Science Internship (3)
Supervised practical experiences in an environmental health setting. Weekly journal and a written paper required. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): junior standing. Permission of instructor.

ENV 474 - Industrial Hygiene Monitoring Methods (3)
Sampling and analysis of occupational health hazards and evaluation of the effectiveness of industrial hygiene control methods in laboratory and field locations.
Prerequisite(s): ENV 386 recommended.

ENV 480 - Biogeochemical Cycling (3)
Nutrient cycle, environmental contamination, remediation, sustainable agriculture, land use and management.
Prerequisite(s): CHM 158, ENV 308.

ENV 485 - Environmental Fate and Transport (3)
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.
Prerequisite(s): CHM 234.

ENV 486 - Toxic Substance Control (3)
Quantification and management of toxic substances, including production, use, distribution, exposure and control. Risk assessment and regulatory strategies will be emphasized.
Prerequisite(s): BIO 111, 113; CHM 234.

ENV 487 - Natural Resource Management (3)
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.
Prerequisite(s): ENV 309

Department of History

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Department Website: oakland.edu/history

Chairperson: *Todd A. Estes*

Professors emeriti: *Linda Benson, James D. Graham, Mary Karasch, Roy A. Kotynek, Carl R. Osthaus, S. Bernard Thomas, Richard P. Tucker*

Associate professors: *Getnet Bekele, Sara E. Williams, Daniel J. Clark, De Witt S. Dykes, Jr., Todd A. Estes, Derek K. Hastings, Craig Martin, Weldon C. (Don) Matthews, Karen A. J. Miller, George Milne, Seán Farrell Moran*

Assistant professors: *Erin Dwyer, Yan Li, James Naus, Elizabeth Shesko*

Chief adviser*: Craig Martin*

The study of history at the undergraduate level has traditionally been considered one of the major paths to informed and effective citizenship. Its emphasis on broad knowledge, critical reading, careful judgment and precise writing offers excellent pre-professional preparation for many careers in business, government service, law, teaching, the ministry, journalism and library and museum service.

The Department of History guides students toward these careers and provides an opportunity to support academic preparation with field experience in the community (e.g., a historical society, museum or private or public agency). Oakland University's teacher preparation program draws on history in the elementary education major and minor concentrations in social studies and in the secondary teaching major and minor in history. Careers in college teaching and other forms of professional historical scholarship usually require post-graduate training, toward which solid work in the undergraduate major is extremely important. Students interested in achieving a Ph.D. in history should be aware that most graduate schools require demonstrated competence in one or two modern foreign languages.

The department's undergraduate program leads to the Bachelor of Arts degree. It also offers a Master of Arts program, which is described in the Oakland University Graduate Catalog. The department offers both undergraduate and graduate evening courses, and students can complete either the B.A. or M.A. entirely at night. All history students should plan their course of study in close consultation with a department adviser.

Requirements for the liberal arts major in history, B.A. program

The major in history requires a minimum of 44 credits in history courses. There is an appropriate writing component in history courses at all levels. Only courses in which the student has earned a grade of at least 2.0 may be counted toward the history major. Students must complete the following requirements:

1. At least 8 credits numbered under 300

2. At least 28 credits numbered 300 or above including

- HST 300 - Seminar in Historical Research (4)
- One course in American history
- One course in European history
- One course in African, Asian, Middle Eastern, or Latin American history

3. One senior capstone course chosen from

- HST 494 - Capstone Seminar in Cross-Cultural History (4)
- HST 495 - Capstone Seminar in European History (4)
- HST 496 - Capstone Seminar in World Civilization (4)
- HST 497 - Capstone Seminar in American History (4)

4. No more than 12 credits in independent study (HST 391 and HST 491) may be counted toward the major.

5. At least 20 credits in history courses must be taken at Oakland.

Note

Students using this catalog to meet history major requirements may also use any course subsequently approved as satisfying requirements under the American; European; African, Asian or Latin American history; and capstone categories and published in a later catalog.

Secondary Teacher Education Program (STEP): History

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Generally, eligibility for admission to the STEP requires a GPA of 3.00 in both the major and minor, and an overall GPA of 2.80. No single major or minor course grade may be below 2.0. Since admission to this program is highly competitive, it is anticipated that successful applicants will have a GPA in history courses of at least 3.40 (including both OU and transfer credits). Second undergraduate major or degree candidates completing a major and/or minor may be required to complete additional coursework at Oakland University beyond the stated minimums. In any case, all history students interested in STEP: History should consult early and often with the history department's undergraduate adviser. Students in this program must complete the requirements for a B.A. degree in the College of Arts and Sciences and concurrently fulfill the requirements listed below:

1. A minimum of 44 credits including

- HST 101 - Introduction to European History Before 1715 (4)
- HST 102 - Introduction to European History Since 1715 (4)
- HST 114 - Introduction to American History Before 1877 (4)
- HST 115 - Introduction to American History Since 1877 (4)

2. At least 28 credits must be numbered 300 or above and must include

- HST 300 - Seminar in Historical Research (4) (must be completed with a minimum grade of 3.0)
- One course in American history
- One course in European history
- One course in African, Asian, Middle Eastern, or Latin American history

3. One senior capstone course chosen from

- HST 494 - Capstone Seminar in Cross-Cultural History (4)
- HST 495 - Capstone Seminar in European History (4)
- HST 496 - Capstone Seminar in World Civilization (4)
- HST 497 - Capstone Seminar in American History (4)

(Capstone course must be completed with a minimum grade of 3.0.)

4. No more than 12 credits in independent study (HST 391 and HST 491) may be counted toward the major.

5. At least 20 credits in history courses must be taken at Oakland.

Also required

A program in STEP must also include a Social Studies (RX) endorsement or a 20-28 hour secondary teaching minor. Also required for either the endorsement or the teaching minor is a sequence of undergraduate course work in education to include SED 300 (must be completed prior to STEP application), **RDG 338, DLL 397, FE 406, and SED 427** (must be completed prior to the final internship semester). Extended study including **SE 401, SED 428 and SED 455** is also required. Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of History and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

Secondary Teacher Education Program (STEP): Endorsement in Social Studies

Students who are earning a STEP: History major are eligible to also complete the requirements for a social studies (RX) endorsement. Only students who have completed the requirements for a history major may be certified by Oakland University to teach social studies at the secondary level. Generally, a cumulative grade point average of 3.00 is required in the endorsement, with no single grade below 2.0. At least 20 credits must be taken at Oakland. Students interested in the social studies endorsement should consult early and often with the history department's undergraduate adviser. In addition to completing the requirements for a history STEP major, students must complete the following:

1. Two approved history courses in one of the following areas

Asia, Latin America or Middle East and Africa (see adviser for options and availability)

2. Two of the following IS courses

- IS 210 - Perspectives on China (4)
- IS 220 - Perspectives on Japan (4)
- IS 230 - Perspectives on Africa (4)
- IS 240 - Perspectives on India (4)
- IS 250 - Perspectives on Latin America (4)
- IS 260 - Perspectives on Russia and Eastern Europe (4)
- IS 270 - Perspectives on the Middle East (4)
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3. Required courses

- PS 100 - Introduction to American Politics (4)
- PS 114 - Issues in World Politics (4)
- PS 131 - Comparative Politics (4)

4. Required course

- PS 250 - The Research Process in Political Science (4)

5. Required course

- PS 305 - Local Government and Politics (4) or PS 307 - State Politics (4)

6. Required course chosen from

- PS 302 - Congress and the Legislative Process (4)

- PS 322 - Political Parties and Interest Groups (4)
- PS 342 - The Judicial Process (4)

7. Required course

- PS 353 - American Public Policy (4)

8. Required course

- HST 321 - History of American Foreign Relations in the Twentieth Century (4) or PS 315 - United States Foreign Policy (4)

9. Required courses

- ECN 200 - Principles of Macroeconomics (4) or ECN 202 - Principles of Global Macroeconomics (4)
- ECN 201 - Principles of Microeconomics (4)

10. Required courses

- GEO 200 - Global Human Systems (4)
- GEO 350 - World Regional Geography (4)

Requirements for the liberal arts minor in history

The liberal arts minor in history requires a minimum of 20 credits as outlined below:

1. Eight credits in history courses numbered 300 or above

2. At least 12 credits in history courses must be taken at Oakland University.

3. Only courses in which the student has earned a grade of at least 2.0 may be counted toward the history minor.

Requirements for the secondary teaching minor in history

The secondary teaching minor in history requires 24 credits in history courses, including:

1. Required courses

- HST 114 - Introduction to American History Before 1877 (4)
- HST 115 - Introduction to American History Since 1877 (4)

2. At least 8 credits of history courses numbered 300 or above

Additional information

In addition to the 24 credits in history courses**, SED 427 - ST: Teaching Secondary in the Minor Methods (4) is required.**

- Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

- At least 12 credits in history courses must be taken at Oakland.

- Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the state minimums.

- Students must consult with the secondary education minor adviser in the Department of History.

Departmental Honors and Scholarships

Department honors may be awarded to graduating majors for outstanding achievement in history as evidenced by faculty recommendations, high grades and a superior research paper. The original paper, along with the instructor's comments and grade, should be submitted. There is no statutory grade point minimum for honors, but the award is not normally made to students with less than a 3.50 grade point average in history. Inquiries should be addressed to the Department of History, 416 Varner Hall, (248) 370-3510.

Students are eligible for membership in Alpha Zeta Upsilon, Oakland University chapter of the international honor society in history, Phi Alpha Theta. Students are selected for membership on the basis of academic achievement. Inquiries should be addressed to the history department office. There is one scholarship, the George T. Matthews Scholarship, specifically for students majoring in history. Junior and senior history majors are eligible for a Holzbock Scholarship. There are five Holzbock scholarships of $2,500 each made annually to students in the humanities. Information about the Matthews and Holzbock scholarships is available in the department office.

Course prerequisites

Introductory and survey courses (HST 101-299) have no prerequisites. More advanced courses (HST 300-399) have a general prerequisite of writing proficiency (e.g., WRT 160 or equivalent) plus any special requirements listed within the course descriptions. The most advanced research courses at the undergraduate level (HST 400-499) have a general requirement of 20 credits in history plus any special requirements listed within the course descriptions.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

HISTORY

HST 101 - Introduction to European History Before 1715 (4)
Surveys the history of Europe from the ancient period through the Middle Ages, Renaissance, Reformation and the Early Modern periods. Satisfies the university general education requirement in the western civilization knowledge exploration area.

HST 102 - Introduction to European History Since 1715 (4)
Surveys the history of Europe from the Enlightenment to the present. Satisfies the university general education requirement in the western civilization knowledge exploration area.

HST 114 - Introduction to American History Before 1877 (4)
Surveys American history from colonial times through the Reconstruction era, focusing upon the formation of the United States and the forces promoting unity and division in the new nation. Satisfies the university general education requirement in the western civilization knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

HST 115 - Introduction to American History Since 1877 (4)
Surveys American history from Reconstruction to the present, emphasizing the emergence of the United States as an industrial-urban nation with global interests. Satisfies the university general education requirement in the western civilization knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

HST 201 - The History of Michigan (4)
Explores Michigan history from the pre-colonial era through the late 1900s, with emphasis on political, economic, environmental, and social themes. Includes Michigan's place in the history of European colonization and early American settlement. Material is grounded in a broader narrative of American and world history.

HST 205 – World History (4)
Surveys major trends in world history 3000 BCE to the present, including technological, economic, and political transformations. Satisfies the university general education requirement in the global perspective knowledge exploration area.

HST 210 - Science and Technology in Western Culture (4)
A survey of the development of science from antiquity to the present with reference to its technological consequences and influence upon society. Satisfies the university general education requirement in the western civilization knowledge exploration area.

HST 229 - Piracy in the Atlantic World, 1500-1831 (4)
Examines popular images of pirates and piracy in the light of historical sources and historians' analyses. Investigates the social, political, religious, and economic motivations for piracy and its role in the development of the Atlantic world.

HST 261 - Introduction to Latin American History to 1825 (4)
Survey of pre-Colombian and colonial Latin America to 1825, stressing the hybridization of the society, its socio-economic institutions, the influence of religious and then Enlightenment thought, and the coming of political independence.

HST 262 - Introduction to Latin American History since 1825 (4)
Surveys the national period of Latin America from 1825 to the present, emphasizing the role of race in national identities, the problems of nation-building and modernization, the emergence of nationalism and militarism, and the roots of social revolutionary ferment.

HST 275 - Introduction to Middle East History (4)
Introduction to the history of the Middle East from the rise of Islam to the recent past, surveying major themes in religious, political, and social history as well as historiographical issues. Satisfies the university general education requirement in the global perspective knowledge exploration area.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 292 - History of the African-American People (4)
Surveys the African-American experience from the African background through the Civil War and post-Civil War periods to the present. Satisfies the university general education requirement in the Western civilization knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

HST 298 - Study Abroad (4)
For majors and non-majors. Topics will vary from year to year depending on the location. May be repeated once for additional credit.
Prerequisite(s): permission of the department chair.

HST 300 - Seminar in Historical Research (4)
The development of critical judgment regarding the nature and use of historical evidence: historiographical readings, library investigation into specific topics within a general historical subject, a research paper and a presentation of the paper to the seminar. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): one history course and history major or permission of instructor.

HST 301 - History of American Cities (4)
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.
Prerequisite(s): WRT 160 or equivalent.

HST 302 - American Labor History (4)
The economic, social and political history of the American work force with emphasis on the history of organized labor.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 303 - History of Religions in the U.S. (4)
Examines the evolution of American religions from pre-contact times to the present, with an emphasis on immigration, church-state separation, diversity, and pluralism.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 304 - History of the American Industrial Economy and Society (4)
The development of the American industrial system and its impact on business organization, labor, government and the international economy.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 305 - History of American Mass Media (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 306 - History of the North American Colonies (4)
Traces the development of Spanish, French, Dutch, and English colonies in North America from 1492 to 1763. Reviews their social, political, and religious dimensions. Attention given to roles of Africans and non-elite European and Euro-American men and women.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 307 - North American Borderlands (4)
The history and evolution of the North American borderlands and the creation of the United States west from colonial times to the present. Includes contact and conflict among Native Americans, Spanish, French, British, and Americans.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 308 - The American Revolution (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 309 - The U.S. Early National Period, 1787-1815 (4)
Examines the political and social development of the new nation from the constitution through the end of the War of 1812.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 310 - Jacksonian America (4)
Examines the chief political, social, cultural, economic, and religious developments from the War of 1812 to the end of the Mexican War.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 311 - The Development of Political Practices in Early America (4)
The development of politics and political culture in the U.S. from the Colonial period through the Age of Jackson. Emphasis will be placed on defining, recognizing and understanding political culture, and the variations in political development and practices by region and social class.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 312 - The Civil War and Reconstruction, 1850-1876 (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 313 - American History, 1876-1900 (4)
The New South, industrial consolidation, the origins of the modern labor movement, the rise of the city, immigration, agrarian protest movements, the businessman's philosophy and the challenge to laissez-faire.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 314 - American History 1900-1928 (4)
Social, political and economic developments in the U.S. during the progressive era and the decade of the 1920s.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 315 - American History 1928-1945 (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 317 - U.S. Cultural History Since 1865 (4)
Examines major trends in American intellectual and cultural history from the Civil War to the present, including Darwinism, modernity, mass culture, pluralism, post-modernity, and changing understandings of race, gender, and sexuality. Focuses on both the ideas of elites and the popular beliefs and ideologies of average Americans.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 318 - The Civil Rights Movement in America (4)
Surveys the system of racial segregation and discrimination established in the 19th century and the contribution of 20th century civil rights organizations to fight racial discrimination. World War II and the mass action movements of the 1950s and the 1960s will receive significant attention. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 319 - History of the American South (4)
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. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 320 - Cold War America, 1945-1990 (4)
The origins of the Cold War, its impact on American foreign relations and domestic politics, its decline and demise.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 321 - History of American Foreign Relations in the Twentieth Century (4)
American foreign policy and diplomacy from the Spanish-American War to the present, including American imperialism, Caribbean and Far Eastern policies, involvement in the world wars and the Cold War, and nuclear diplomacy.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 322 - Women in Modern America (4)
An analysis of the role of women in industrial America which will examine the legal role of women, their presence in the labor force, and their participation in the political system. Identical with WGS 322. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 323 - Topics in African American History (4)
The economic, social and political activities, status, organizations and institutions of African-American people, emphasizing the twentieth century.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 325 - Medieval Europe (4)
The European Middle Ages from about A.D. 400 to 1300, with special emphasis on intellectual developments.
Prerequisite(s): HST 101 recommended; WRT 160 or equivalent with a grade of 2.0 or higher.

HST 326 - The Italian Renaissance (4)
The European Renaissance period, with emphasis on the Italian experience. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 327 - The Reformation (4)
European humanism, with emphasis on the Lowlands, France and Germany; the background, development and impact of the Protestant Reformation.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 329 - Europe in the Seventeenth Century (4)
A comparative analysis of European societies: the articulation of absolutism and constitutionalism, the emergence of the European states system, the origins and impact of modern science, the culture of the baroque and the development of commercial capitalism.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 330 - England, 1066-1485 (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher. HST 101 recommended.

HST 331 - Science and Medicine in the Ancient World (4)
Theories about nature, health, disease, and technology in the Greek and Roman world from 500 BC to 300 AD. Science and medicine are considered in relation to Greek and Roman politics, cultural ideals, and social structures. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

HST 332 - Occult Sciences and Witchcraft in Early Modern Europe (4)
Examines the occult sciences (alchemy, astrology and natural magic) and witchcraft in Europe during the 16th and 17th centuries. Focuses on why people believed witchcraft and occult sciences were valid. Also examines the links between occult sciences and the eventual development of the scientific revolution.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 334 - Britain, 1815-1911 (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 335 - Britain 1911 to Present (4)
An analysis of British political, cultural and social history from the eve of World War I to the present.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 337 - Ireland, Prehistory to 1691 (4)
Ireland from its prehistory until the Battle of the Boyne emphasizing the development of indigenous Irish culture and institutions. Topics include the Celts and Gaelic society, early Irish Christianity, the Vikings, Anglo-Norman intervention, Gaelic resurgence and the Geraldines, the Tudor conquest, Ulster plantation and Jacobite resistance.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 338 - Ireland, 1691 to the Present (4)
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, 1916, forging the new state and society and the North.
205Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 339 - Women in Early Modern Europe, 1500-1789 (4)
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 on politics, the economy, literacy and culture, and religious practices and beliefs. Identical with WGS 339.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 340 - Scotland: 1689 to Present (4)
History of the Scottish nation from the revolution of 1689 to the present. Special attention will be given to the interaction of cultural, political and social developments, and the emergence of a self-conscious separate national identity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 341 - Europe Since 1914 (4)
An analysis of Europe in world perspective since World War I.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 342 - Society and Culture in Early Modern Europe (4)
The lives of common men and women in early modern Europe. Topics include family and work, sexuality and gender, religion and folklore, riots and rebellion, printing and literacy.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 343 - Germany Since 1740 (4)
German politics, society and diplomacy from Frederick the Great to the present.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 344 - Modern Italy: National Unification and the 20th Century (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 346 - The Scientific Revolution (4)
Examines major changes in theories about nature and medicine during years 1500-1700, including development of new methods and social settings for scientific inquiry that eventually led to the rise of modern science. No prior knowledge of science or higher mathematics is required. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): WRT 160.

HST 348 - Europe in the Eighteenth Century (4)
A comparative analysis of European societies: the old regime in Europe, beginnings of industrial development, the Enlightenment as a political and social movement, reform under the monarchy and the emergence of democratic ideologies, and the French Revolution.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 349 – Early Modern France(4)
History of early Modern France (1550s-1750) including the wars of religion, reigns of Henri IV, Louis XIII and Louis XIV, and the Enlightenment.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 351 - European Thought and Ideology from the French Revolution to the Present (4)
Examines the history of ideas and intellectual life in the history of Modern Europe. Topics include the development of revolutionary culture and ideas, Romanticism, secularization and religion, realism/ naturalism, liberalism, conservatism, socialism/communism, the “new right” and fascism, modern scientific thought, the Holocaust, existentialism, post-modernism, and nationalism.
Prerequisite(s): HST 102 or equivalent or permission of instructor. WRT 160 or equivalent with a grade of 2.0 or higher.

HST 352 - Nationalism in Modern Europe (4)
Origins and development of nationalism in Europe from the eighteenth through the twentieth 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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 353 - Nazi Germany: Society, Politics and Culture (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 354 - History of Modern Russia (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 355 - Eastern European History (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 356 - The Modern Middle East (4)
Covers the major themes in Middle East history since 1800 including Orientalism, imperialism, nationalism, liberal movements, gender relations, and the emergence of the Islamic movements.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 357 - The Arab-Israeli Conflict (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 358 - The Cold War in the Middle East (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 359 - Modern Iran and Iraq (4)
Examines the historical relationship between Iran and Iraq, with special attention to the period since 1800. Cultural similarities such as religion and ethnicity will be highlighted as dimensions which complicate political relationships across time. Students will develop an historical understanding of the basic themes of political identity, imperialism, and development.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 361 - History of American Families (4)
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. Identical with WGS 361. Satisfies the COLLEGE OF ARTS AND SCIENCES (History) 207. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher

HST 362 - History of African-American Women (4)
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. Satisfies the university general education requirement in U.S. diversity. Identical with WGS 362.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 363 - History of Argentina, Brazil, and Chile (4)
The political, social, and cultural history of Argentina, Brazil, and Chile from the 19th century to the present, including Indian warfare and slavery; immigration, industrialization and nationalism; dictatorship and transition to democracy; race, soccer, and carnival.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 366 - Slavery and Race in Latin America (4)
Comparative approach to the study of slavery in Latin America and the Caribbean and ideas about race in these areas.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 368 - The Crusades (4)
Considers the crusades in their historical and religious context and the ways in which the crusading movement influenced cultural development across Europe and the East. Provides an understanding of what the crusades were, what they were not, and why they continue to fascinate the modern world.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 369 - The Middle Ages, 1100-1500 (4)
Considers the period of the High and Late Middle Ages, roughly from the eleventh century through the fall of Constantinople in the mid-fifteenth. Provides an introduction to the main people and cultures, ideas and institutions of the Middle Ages, and the techniques used by medieval historians to interpret sources.
Prerequisite(s): WRT 160 equivalent with a grade of 2.0 or higher.

HST 370 - Origins of Modern Japan, 1568-1912 (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 371 - Twentieth-Century Japan (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 373 - China’s Last Dynasty: The Qing, 1644-1911 (4)
History of China’s last great dynasty from its founding by the Manchus in 1644 through its powerful early emperors to its final collapse in 1911. Course includes discussion of traditional Chinese culture and institutions, territorial expansion, the Opium Wars and the 19th century revolutionary movement.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 374 - China in Revolution, 1911-1949 (4)
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 Republic; World War II in Asia; and the civil war that brought the Chinese Communist Party to power in 1949.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 375 - Women in China: Past and Present (4)
Women's changing position in modern China: their status in traditional Chinese society, contributions to modernization in China during the revolutionary period (1912-1949), and struggle for equality since 1949. Identical with WGS 375.
Prerequisite(s) WRT 160 or equivalent with a grade of 2.0 or higher.

HST 376 - China Since 1949 (4)
History of China from 1949 to the present, focusing on major policies and personalities of the Maoist period (1949-1976) and on the dramatic social and economic changes which have occurred since 1976.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 377 - China and Inner Asia (4)
China's historical relations with Inner Asia: Chinese policy toward steppe empires north of the Great Wall including nomadic Xiongnu, Turks, early Tibetans, and Mongolians. Emergence of modern Inner Asian peoples such as the Uyghurs, Kazaks, and Manchus, and the role of Inner Asia in shaping modern China.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 378 - Medieval Noble Culture (4)
Surveys the world of the medieval nobility in the Central Middle Ages, c. 1000-1250. Topics include the rise of the knightly class, the role of castles, the function of blood feuds and vengeance, the importance of women and family to the nobility, and the way nobles connected to the crusades. Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 379 - Islamic Empires, 600 – 1600 (4)
Explores the rise and expansion of Islamic empires from the Prophet Muhammad to the gunpowder empires. Themes include Islamic conquests, jihad, caliphates, sharia', women, and non-Muslims. Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 382 - Religion, Politics and American Culture (4)
Provides an historical analysis of the intersection of religion and American politics. Examines the connections between faith and political activism. Focusing on the period since the Civil War, it will emphasize controversies over the separation of church and state, religiously oriented social reform, and the rise of the religious right.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 383 - Postcolonial Conflicts in African History (4)
Using postcoloniality as an organizing theme, surveys large scale conflicts in contemporary African history. Includes a discussion of origins, causes and broader contextualization of post World War II Africa.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 385 - Ancient and "Medieval" African Civilizations (4)
Explores the history of Africa's ancient civilizations– Egypt, Nubia, Aksum– and regional development in northern, western, and eastern Africa to 1500 C.E. Topics include migration and settlement, agriculture, technology and ideology, the spread and impact of world religions, trade, and the exchange of ideas.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 386 - Modern African History Since 1800 (4)
Political, social and economic history of Africa in the 19th and 20th centuries including Islam's place in the building of empire-states in West Africa, versions of modernity, European colonization and African responses, and the African experience in state-building in the post- colonial era.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 388 - African Cultural History (4)
Examines the evolution of African societies and politics between 1500 and 1850 in the context of global antecedents and regional configuration of power and resources. Special emphasis will be given to slavery and the slave trade.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 389 - African Environmental History (4)
Examines the evolution of African environmental and ecological systems with an emphasis on climate change, hydrology, and human/environmental interaction, and the role of colonialism and economic development in environmental change. Identical with ENV 389.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 390 - Selected Topics in History (4)
For majors and non-majors. Topics vary from year to year. May be repeated for additional credit.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 391 - Directed Readings in History (2 to 8)
Independent but directed readings for juniors and seniors interested in fields of history in which advanced courses are not available. Offered each semester.
Prerequisite(s): permission of instructor.

HST 392 - Working Detroit (4)
Explores the history of 20th-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 de-industrialization.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 393 - Oral History (4)
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.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

HST 394 - Latin American Revolutions (4)
Comparative approach to revolutionary movements in Latin America, including their origins and their effects on society, culture, national politics, and international relations.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 395 – Indigenous Movements in Latin America, 1492 – Present (4)
Military and social movements by indigenous people in Latin America from the conquest to the present.
Prerequisite: WRT 160 with a grade of 2.0 or higher.

HST 397 - Introduction to Public History (4)
Through readings, field trips, and guest lectures, introduces students to the variety of careers in public history, including working in museums, archives, documentary film, libraries, digital history, primary and secondary education, historical sites and parks.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 398 - Study Abroad (4)
For majors and non-majors. Topics will vary from year to year, depending on the location. May be repeated once for additional credit.
Prerequisite(s): permission of department chair.

HST 399 - Field Experience: Public History (4)
Field experience in history, with faculty supervision that incorporates student performance in an occupational setting. May not be repeated for credit.
Prerequisite(s): junior/senior standing; 24 credits in history, of which at least 8 must be at the 300-400 level; completion of HST 300 with a 3.3 or better.

HST 406 - Native America to 1840 (4)
Study of the major trends within the histories of Native Americans from pre-Contact to the Removal Era. An emphasis will be placed upon the diversity of American Indian civilizations.
Prerequisite(s): HST 114 and WRT 160 or equivalent with a grade of 2.0 or higher.

HST 407 - Native America since 1840 (4)
Major trends within the histories of Native Americans since the Removal Era. The Plains Wars, reservation policies, termination, and twentieth-century American Indian legal and social issues will be covered.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher.

HST 424 - The U.S. and the War in Vietnam (4)
Examination of the war in Vietnam as a case study in American diplomatic history. Primary focus will be on the Johnson and Nixon administrations, although the war will be viewed in a much larger historical context.
Prerequisite(s): HST 115 or HST 320 or HST 321 and WRT 160 with a grade of 2.0 or higher.

HST 431 - Ancient Greece and Rome (4)
Provides an historic overview of the various intellectual, political, and cultural legacies of ancient Greece and Rome from the Homeric period to the collapse of the Roman Empire.
Prerequisite(s): HST 101 and WRT 160 with a grade of 2.0 or higher.

HST 447 - French Revolution (4)
Survey of the revolutionary era in France beginning with the reign of Louis XVI (1774) and ending with the Battle of Waterloo (1815). Examines the origins, development and impact of the French Revolution with an emphasis on topics in political and cultural history.
Prerequisite(s): HST 101 or 102. WRT 160 with a grade of 2.0 or higher.

HST 491 - Directed Research in History (4 to 12)
Directed individual research for advanced history majors. Offered each semester.
Prerequisite(s): permission of instructor and HST 300.

HST 494 - Capstone Seminar in Cross-Cultural History (4)
In this capstone course students investigate topics in cross-cultural history in a seminar setting. Under the guidance of the faculty leader substantive issues, research techniques and historiographical problems will be considered as the student prepares a research paper to be submitted at the conclusion of the course. Topics vary. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing or permission of instructor, HST 300.

HST 495 - Capstone Seminar in European History (4)
In this capstone course students investigate topics in European history in a seminar setting. Under the guidance of the faculty leader, substantive issues, research techniques and historiographical problems will be considered as the student prepares a research paper to be submitted at the conclusion of the course. Topics vary. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing or permission of instructor, HST 300.

HST 496 - Capstone Seminar in World Civilization (4)
In this capstone course students investigate topics in world civilizations in a seminar setting. Under the guidance of the faculty leader, substantive issues, research techniques and historiographical problems will be considered as the student prepares a research paper to be submitted at the conclusion of the course. Topics vary. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing or permission of instructor, HST 300.

HST 497 - Capstone Seminar in American History (4)
In this capstone course students investigate topics in American history in a seminar setting. Under the guidance of the faculty leader, substantive issues, research techniques and historiographical problems will be considered as the student prepares a research paper to be submitted at the conclusion of the course. Topics vary. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing or permission of instructor, HS

International Studies Program

521 Varner Hall (248) 370-2154
Fax: (248) 370-4280
Program Website: oakland.edu/cip

Director: Paul Kubicek (Political Science)

International Studies Faculty:

Africa and African-American Studies*: Getnet Bekele (History), DeWitt Dykes (History), Matthew Fails (Political Science), Mark Stone (Music, Theatre and Dance).*

Chinese Studies: *Hsiang-Hua (Melanie) Chang (Chinese), Alan Epstein (Political Science), Yan Li (History)*

Japanese Studies: *Stephen Filler (Japanese), Seigo Nakao (Japanese)*

Latin American Studies: *Henri Gooren (Anthropology), Emmett Lombard (Political Science), Diana Orces (Political Science), Aldona Pobutsky (Spanish), Cecilia Saenz-Roby (Spanish), Elizabeth Shesko (History)*

Middle Eastern Studies: *Paul Kubicek (Political Science), Laura K. Landolt (Political Science), Weldon C. Matthews (History)*

Russian and East European Studies: *Cristian Cantir (Political Science), Paul J. Kubicek (Political Science)*

Drawing on faculty from various disciplines, the International Studies Programs offers for general education a variety of interdisciplinary courses that introduce students to the civilizations of seven world areas outside of North America and Western Europe: China, Japan, Africa, India, Latin America, Russia and Eastern Europe and the Middle East. In these courses, students will explore various aspects of these civilizations: art, government, history, language, literature, music, religion and social organization. Also offered are major and minor programs that focus on these world areas. Its major programs include Chinese Studies, Japanese Studies, and Latin American Studies. Its minor programs include African and African-American Studies, Chinese Studies, Japanese Studies, Latin American Studies, Middle Eastern Studies, Russia and Eastern European Studies, and South Asian Studies.

Requirements for the liberal arts majors in Chinese studies, Japanese studies, and Latin American studies

The international studies majors consist of a minimum of 44 credits, of which 24 credits must be taken in the primary area (Chinese studies, Japanese studies, Latin American studies); 12 credits in a complementary area of study; and 8 credits at the 300-400 level in an appropriate language. Language courses at the 100 and 200 level do not count toward the total number of credits for the major in either the primary or secondary area. The complementary area of study ordinarily consists of the appropriate introductory international studies course and two additional courses in the area, which may be either international studies courses or departmental courses. IS 490 , the capstone course, must have a subject matter relevant to the proper area to count for credit toward the major.

Duplication of course credit in the primary and complementary areas is not permitted. However, majors may apply their courses in international studies to their general education requirements.

Chinese Studies, B.A. program

Course requirements for the major in Chinese studies include:

1. Core course

- IS 210 - Perspectives on China (4)

2. 16 credits drawn from the following

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 304 - Chinese Art (4)
- AH 307 - Buddhist Art (4)
- AH 357 - Chinese Architecture (4)
- AN 362 - Peoples and Cultures of China (4)
- HST 373 - China's Last Dynasty: The Qing, 1644-1911 (4)
- HST 374 - China in Revolution, 1911-1949 (4)
- HST 375 - Women in China: Past and Present (4)
- HST 376 - China Since 1949 (4)
- HST 377 - China and Inner Asia (4)
- IS 381 - Seminar in East Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 334 - Political Systems of Asia (4)

3. 12 credits in complementary area - Japanese or South Asian studies

- IS 220 - Perspectives on Japan (4)
- IS 240 - Perspectives on India (4)
- AH 301 - Japanese Art (4)
- AH 307 - Buddhist Art (4)
- HST 370 - Origins of Modern Japan, 1568-1912 (4)
- HST 371 - Twentieth-Century Japan (4)
- IS 381 - Seminar in East Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 334 - Political Systems of Asia (4)
- IS 361 - Japan Exchange Program I (16 TO 18)
- IS 362 - Japan Exchange Program I (16 TO 18)
- IS 363 - Japan Exchange Program II (16 TO 18)
- IS 364 - Japan Exchange Program II (16 TO 18)
- IS 365 - Japan Program: Shiga I (4 TO 18)
- IS 366 - Japan Program: Shiga I (4 TO 18)
- IS 367 - Japan Program: Shiga II (4 TO 18)
- IS 368 - Japan Program: Shiga II (4 TO 18)

4. 4 credits in IS 490 (Directed Research), focused on the core area

5. 8 credits in Chinese language at the 300-400 level

Note
Students using this catalog to meet Chinese studies major requirements may also use any course subsequently approved as satisfying requirements #2 and #3 above and published in a later catalog.

Additional information
The International Studies Program periodically sponsors summer study tours to China including study at the China Foreign Affairs University in Beijing.

Japanese studies, B.A. program

Course requirements for the major in Japanese studies include:

1. Core course

- IS 220 - Perspectives on Japan (4)

2. 16 credits drawn from the following courses

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 301 - Japanese Art (4)
- AH 307 - Buddhist Art (4)
- HST 370 - Origins of Modern Japan, 1568-1912 (4)
- HST 371 - Twentieth-Century Japan (4)
- IS 381 - Seminar in East Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 334 - Political Systems of Asia (4)
- IS 361 - Japan Exchange Program I (16 TO 18)
- IS 362 - Japan Exchange Program I (16 TO 18)
- IS 363 - Japan Exchange Program II (16 TO 18)
- IS 364 - Japan Exchange Program II (16 TO 18)
- IS 365 - Japan Program: Shiga I (4 TO 18)
- IS 366 - Japan Program: Shiga I (4 TO 18)
- IS 367 - Japan Program: Shiga II (4 TO 18)
- IS 368 - Japan Program: Shiga II (4 TO 18)

3. 12 credits in complementary area - Chinese or South Asian studies

- IS 210 - Perspectives on China (4)
- IS 240 - Perspectives on India (4)
- AH 304 - Chinese Art (4)
- AH 307 - Buddhist Art (4)
- AH 357 - Chinese Architecture (4)
- AN 362 - Peoples and Cultures of China (4)
- HST 373 - China's Last Dynasty: The Qing, 1644-1911 (4)
- HST 374 - China in Revolution, 1911-1949 (4)
- HST 375 - Women in China: Past and Present (4)
- HST 376 - China Since 1949 (4)
- HST 377 - China and Inner Asia (4)
- IS 381 - Seminar in East Asian Studies (4)

- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 334 - Political Systems of Asia (4)

4. 4 credits in IS 490 (Directed Research), focused on the core area

5. 8 credits in Japanese language at the 300-400 level

Note
Students using this catalog to meet Japanese studies major requirements may also use any course subsequently approved as satisfying requirements #2 and #3 above and published in a later catalog.

Additional information
Students wishing to study in Japan may do so through an exchange program between Oakland University and Nanzan University, Nagoya, Japan, and the Japan Center for Michigan Universities, Hikone, Shiga, Japan. See Study Abroad Opportunities.

Latin American studies, B.A. program

Coordinator: Cecilia Saenz-Roby (Modern Languages and Literatures)

Course requirements for the major in Latin American studies include

1. Core course

- IS 250 - Perspectives on Latin America (4)

2. 16 credits drawn from the following courses

- AH 309 - Pre-Columbian Art (4)
- AN 370 - Archaeology of Mesoamerica (4)
- AN 371 - Peoples and Cultures of Mexico and Central America (4)
- AN 372 - Indians of South America (4)
- HST 261 - Introduction to Latin American History to 1825 (4)
- HST 262 - Introduction to Latin American History since 1825 (4)
- HST 363 - History of Argentina, Brazil, and Chile (4)
- HST 366 - Slavery and Race in Latin America (4)
- IS 385 - Seminar in Latin American Studies (4)
- PS 335 - Politics of Latin America (4)

3. 12 credits in complementary area - African-American studies

- IS 230 - Perspectives on Africa (4)
- AH 305 - African Art (4)
- AH 351 - Women in Art (4)
- ENG 342 - African American Literature (4)
- HST 318 - The Civil Rights Movement in America (4)
- HST 323 - Topics in African American History (4)
- HST 362 - History of African-American Women (4)
- HST 366 - Slavery and Race in Latin America (4)

- HST 385 - Ancient and "Medieval" African Civilizations (4)
- HST 386 - Modern African History Since 1800 (4)
- HST 388 - African Cultural History (4)
- IS 380 - Seminar in African-American Studies (4)
- IS 384 - Seminar in African Studies (4)
- MUS 107 - Exploring Jazz (4)
- MUS 110 - Exploring African Music (4)
- MUS 111 - Exploring Caribbean Music (4)
- PS 312 - The Politics of Race and Ethnicity (4)
- PS 333 - African Politics (4)
- SOC 331 - Racial and Ethnic Relations (4) or AN 331 - Racial and Ethnic Relations (4)

4. 4. 4 credits in IS 490 (Directed Research), focused on the core area

5. 8 credits in Spanish language at the 300-400 level

Note
Students using this catalog to meet Latin American studies major requirements may also use any course subsequently approved as satisfying requirements #2 and #3 above and published in a later catalog.

Other coursework for the liberal arts majors in international studies, B.A. programs

Provided that the specific course topic to be studied in any given semester is consistent with their chosen major, students may use the following courses for major credit if approved by the International Studies Program director or faculty adviser prior to enrollment.

- IS 300 - Special Topics in International Studies (4)
- IS 390 - Directed Readings in International Studies (2 TO 8)
- IS 410 - Global Arts Study Abroad (4)
- IS 490 - Directed Research in International Studies (2 TO 8)
- LIT 251 - Studies in Foreign Film (4)
- LIT 375 - Topics in Foreign Literature (4)
- AH 390 - Special Topics in Art History (4)

Departmental Honors

Honors are available to outstanding students in the majors. A GPA of 3.60 or higher in courses credited to the major is required. Because basic language courses at the 100 and 200 level are not counted toward the total number of credits for the major, such courses may not be figured into the GPA for departmental honors. Qualified students may apply for honors at the start of the semester in which they will graduate. For more specific information, students should contact the International Studies Program, 521 Varner Hall, (248) 370-2154.

African and African-American Studies Minor

Requirements for the liberal arts minor in African and African-American Studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory Course

- IS 230 - Perspectives on Africa (4)

2. Plus 16 credits drawn from

- AH 305 - African Art (4)

- AH 351 - Women in Art (4)
- ENG 342 - African American Literature (4)
- HST 318 - The Civil Rights Movement in America (4)
- HST 323 - Topics in African American History (4)
- HST 362 - History of African-American Women (4)
- HST 366 - Slavery and Race in Latin America (4)
- HST 385 - Ancient and "Medieval" African Civilizations (4)
- HST 386 - Modern African History Since 1800 (4)
- HST 388 - African Cultural History (4)
- IS 380 - Seminar in African-American Studies (4)
- IS 384 - Seminar in African Studies (4)
- MUS 107 - Exploring Jazz (4)
- MUS 110 - Exploring African Music (4)
- MUS 111 - Exploring Caribbean Music (4)
- PS 312 - The Politics of Race and Ethnicity (4)
- PS 333 - African Politics (4)
- SOC 331 - Racial and Ethnic Relations (4) or AN 331 - Racial and Ethnic Relations (4)
- Lanuage options: French, Spanish or Arabic

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Chinese studies Minor

Requirements for the liberal arts minor in Chinese Studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory course

- IS 210 - Perspectives on China (4)

2. Plus 16 credits drawn from

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 304 - Chinese Art (4)
- AH 307 - Buddhist Art (4)
- AH 357 - Chinese Architecture (4)
- AN 362 - Peoples and Cultures of China (4)
- HST 373 - China's Last Dynasty: The Qing, 1644-1911 (4)
- HST 374 - China in Revolution, 1911-1949 (4)
- HST 375 - Women in China: Past and Present (4)
- HST 376 - China Since 1949 (4)
- HST 377 - China and Inner Asia (4)
- IS 381 - Seminar in East Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 334 - Political Systems of Asia (4)
- Language option: Chinese - up to 8 credits of Chinese language study, at any level, may apply

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Japanese Studies Minor

Requirements for the liberal arts minor in Japanese studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory Course

- IS 220 - Perspectives on Japan (4)

2. Plus 16 credits drawn from

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 301 - Japanese Art (4)
- AH 307 - Buddhist Art (4)
- HST 370 - Origins of Modern Japan, 1568-1912 (4)
- HST 371 - Twentieth-Century Japan (4)
- IS 381 - Seminar in East Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4)
- PS 334 - Political Systems of Asia (4)
- IS 361 - Japan Exchange Program I (16 TO 18) and IS 362 - Japan Exchange Program I (16 to 18)
- IS 365 - Japan Program: Shiga I (4 TO 18) and IS 366 - Japan Program: Shiga I (4 to 18)
- Language option: Japanese

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Latin American Studies Minor

Requirements for the liberal arts minor in Latin American studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory Course

- IS 250 - Perspectives on Latin America (4)

2. Plus 16 credits drawn from

- AH 309 - Pre-Columbian Art (4)
- AN 370 - Archaeology of Mesoamerica (4)
- AN 371 - Peoples and Cultures of Mexico and Central America (4)
- AN 372 - Indians of South America (4)
- HST 261 - Introduction to Latin American History to 1825 (4)
- HST 262 - Introduction to Latin American History since 1825 (4)
- HST 363 - History of Argentina, Brazil, and Chile (4)
- HST 366 - Slavery and Race in Latin America (4)
- IS 385 - Seminar in Latin American Studies (4)
- PS 335 - Politics of Latin America (4)
- Language option: Spanish or transferred course work in Portuguese

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Middle Eastern Studies Minor

Requirements for the liberal arts minor in Middle Eastern studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory course

- IS 270 - Perspectives on the Middle East (4)

2. Plus 16 credits drawn from

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 310 - Art of the Ancient Near East (4)
- AH 320 - Islamic Art (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- HST 358 - The Cold War in the Middle East (4)
- HST 359 - Modern Iran and Iraq (4)
- LIT 100 - Introduction to Asian Literature (4)
- PS 332 - Politics of the Middle East and North Africa (4)
- REL 101 - Introduction to Islam (4)
- REL 102 - Introduction to Judaism (4)
- Language option: Arabic or Hebrew or transferred course work in another Middle Eastern language

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Russian and East European Studies

Requirements for the liberal arts minor in Russian and East European Studies
A minimum of 20 credits of coursework distributed as follows:

1. Introductory Course

- IS 260 - Perspectives on Russia and East Europe (4)

2. Plus 16 credits drawn from

- AH 343 - Russian Art (4)
- HST 354 - History of Modern Russia (4)
- HST 355 - Eastern European History (4)
- IS 383 - Seminar in Russian and Eastern European Studies (4)
- PS 337 - The Russian Political System (4)
- Language option: transferred coursework in Russian or any East European language

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

South Asian Studies Minor

Requirements for the liberal arts minor in South Asian studies
A minimum of 20 credits of coursework distributed as follows:

Introductory course

- IS 240 - Perspectives on India (4)

2. Plus 16 credits drawn from

- AH 307 - Buddhist Art (4)
- AH 320 - Islamic Art (4)
- AN 361 - Peoples and Cultures of India (4)
- IS 382 - Seminar in South Asian Studies (4)
- LIT 100 - Introduction to Asian Literature (4)
- PHL 350 - Philosophies and Religions of Asia (4) or REL 359 - Philosophies and Religions of Asia (4)
- REL 101 - Introduction to Islam (4)
- PS 334 - Political Systems of Asia (4)
- Language option: transferred coursework in any South Asian language

Other coursework

Relevant independent study, directed research, or special topics coursework (e.g., IS 300) may also count toward fulfillment of the minor requirements, subject to international studies academic adviser approval.

Study Abroad Opportunities

The following are some of the study abroad opportunities offered through the International Studies Program or the Office of International Education. Visit the International Education website for additional information.

Student Exchange Program, Nanzan University, Nagoya, Japan. Two-semester program. One year of Japanese language required. Courses taught in English. Housing with Japanese family. Coordinator: Seigo Nakao, Department of Modern Languages and Literatures, 354 O'Dowd Hall, nakao@oakland.edu, (248) 370-2066.

Japan Center for Michigan Universities, Hikone, Shiga, Japan. Two-semester program. No language proficiency required. Courses taught in English. Housing in Center's dormitory. Coordinator: Seigo Nakao, Department of Modern Languages and Literatures, 354 O'Dowd Hall, nakao@oakland.edu, (248) 370-2066.

Macerata and Siena, Italy, Study Abroad Program. One-semester and two-semester programs. No language proficiency required. Courses taught in English. Housing with Italian family. Contact: International Education, 328 O'Dowd Hall, (248) 370-2889.

Segovia, Spain, Study Abroad Program. Fall, winter or summer program. Two years of college-level Spanish required. Courses taught in Spanish. Housing with Spanish family. Contact: International Education, 160 North Foundation Hall, (248) 370-2889.

Student Exchange Program, University of Orléans, Orléans, France. One-semester or two-semester program. Two years of college-level French required. Courses taught in French. Housing prior to start of class and holidays with a French family; otherwise, in university dormitory. Coordinator: Stacey L. Hahn, Department of Modern Languages and Literatures, 350 O'Dowd Hall, (248) 370-2062 or messages at (248) 370-2060. Offered in cooperation with the Department of Modern Languages and Literatures.

Student Exchange Program, University of Oldenburg, Oldenburg, Germany. One-semester or two-semester program. Two years of college-level German required. Courses taught in German. Housing in university dormitory, shared flat with other students, or room in private house near University. Buddy Program with German

students. Coordinator: Christopher Clason, Department of Modern Languages and Literatures, 352 O'Dowd Hall, (248) 370-2099.

Chinese Language and Culture Program at the China Foreign Affairs University, Beijing. Intensive 5-week language and culture study offered periodically in May and June. Beginning and intermediate level Chinese language courses taught in Chinese; culture courses taught in English. Culmination of program is a one-week tour of historic sites in Northern and Southern China. Housing in college's international guest house/dormitory on campus. Coordinator: Hsiang-Hua (Melanie) Chang, Department of Modern Languages and Literatures, 368 O'Dowd Hall, (248) 370-4248.

British Studies at Oxford, Oxford University, Oxford, England. One four-week session in July. No foreign language proficiency required. Courses taught in English. Housing in college's private rooms. Coordinator: Brian Connery, Department of English, (248) 370-2254).

For specifics about any of these programs (minimum GPA requirement, if any, course offerings, costs, faculty and other eligibility requirements), the student should contact the individual program coordinator. For additional information about other study abroad opportunities, see the Department of Modern Languages and Literatures.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes.*

INTERNATIONAL STUDIES

IS 200 - Global Human Systems (4)
Introductory survey of world-wide distribution, variation, and interconnections of economic, cultural, and political systems and their underlying geographic elements. Basic concepts in human geography and other social sciences, as relevant, are introduced as are techniques and tools used in carrying out and expressing geographic analysis. Satisfies the university general education requirement in the global perspective knowledge exploration area. Identical with AN 200 and GEO 200.

IS 205 - Issues in Global Health (4)
Contemporary issues in global health: communicable and non-communicable diseases, organizations dedicated to improving health care on an international level, innovative solutions to global health issues including the use of technology, ethical dilemmas, and economic and political perspectives.

IS 210 - Perspectives on China (4)
Interdisciplinary study of the peoples of China and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area.

IS 220 - Perspectives on Japan (4)
Interdisciplinary study of the peoples of Japan and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area.

IS 230 - Perspectives on Africa (4)
Interdisciplinary study of the peoples of Africa and their traditional and modern civilizations. Satisfies the university general education requirement in global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

IS 240 - Perspectives on India (4)
Interdisciplinary study of the peoples of India and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the univeristy writing foundation requirement.

IS 250 - Perspectives on Latin America (4)
Interdisciplinary study of the peoples of Latin America and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

IS 260 - Perspectives on Russia and Eastern Europe (4)
Interdisciplinary study of the peoples of Russia and Eastern Europe and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

IS 270 - Perspectives on the Middle East (4)
Interdisciplinary study of the peoples of the Middle East and their traditional and modern civilizations. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

IS 300 - Special Topics in International Studies (4)
Interdisciplinary study of a foreign area for which no regular course offerings exist. May be repeated once for a total of 8 credits.

IS 301 - The Global Citizen (4)
Identification of contemporary problems that challenge the global community. Through a problem-based learning approach, students will analyze and propose measures to help solve these problems. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

IS 350 - World Regional Geography (4)
Identical with AN 350 and GEO 350.
Prerequisite(s): AN 200 or IS 200 or GEO 200.

IS 361 - Japan Exchange Program I (16 to 18)
Course work is taken at Nanzan University in Nagoya, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction.

IS 362 - Japan Exchange Program I (16 to 18)
Course work is taken at Nanzan University in Nagoya, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction.

IS 363 - Japan Exchange Program II (16 to 18)
Course work is taken at Nanzan University in Nagoya, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction. Second year.

IS 364 - Japan Exchange Program II (16 to 18)
Course work is taken at Nanzan University in Nagoya, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction. Second year.

IS 365 - Japan Program: Shiga I (4 to 18)
Course work is taken at the Japan Center for Michigan Universities, Shiga, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction.

IS 366 - Japan Program: Shiga I (4 to 18)
Course work is taken at the Japan Center for Michigan Universities, Shiga, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction.

IS 367 - Japan Program: Shiga II (4 to 18)
Course work is taken at the Japan Center for Michigan Universities, Shiga, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction. Second year.

IS 368 - Japan Program: Shiga II (4 to 18)
Course work is taken at the Japan Center for Michigan Universities, Shiga, Japan, and includes Japanese language study and additional appropriate courses with English as the language of instruction. Second year.

IS 370 - France Exchange Program: Language I (4)
Course is taught at the University of Orleans in France and includes the study of French grammar. French is the language of instruction. Fall semester.
Prerequisite(s): permission of program coordinator.

IS 371 - France Exchange Program: Literature I (4)
Course is taught at the University of Orleans in France and includes the study of French literature. French is the language of instruction. Fall semester.
Prerequisite(s): permission of program coordinator.

IS 372 - France Exchange Program: Conversation, Comprehension, Writing I (4)
Course is taught at the University of Orleans in France and includes French conversation, comprehension and writing. French is the language of instruction. Fall semester.
Prerequisite(s): permission of program coordinator.

IS 373 - France Exchange Program: Civilization I (4)
Course is taught at the University of Orleans in France and includes French history, geography and contemporary civilization. French is the language of instruction. Fall semester.
Prerequisite(s): permission of program coordinator.

IS 380 - Seminar in African-American Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 381 - Seminar in East Asian Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 382 - Seminar in South Asian Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 383 - Seminar in Russian and Eastern European Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 384 - Seminar in African Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 385 - Seminar in Latin American Studies (4)
Selected topics dealing with a specified area, to supplement departmental area courses. Students enroll under the number corresponding to a specific area. May be repeated once for a total of 8 credits.
Prerequisite(s): senior standing and permission of instructor.

IS 390 - Directed Readings in International Studies (2 to 8)
Readings from diverse disciplines with focus on a student's area of specialization. Conducted as a tutorial by an instructor chosen by the student. May be taken for no more than 8 credits.
Prerequisite(s): appropriate IS introductory course and permission of program chairperson and instructor.

IS 395 - Globalization and the International System (4)
Exploration of how globalization is shaping the contemporary world. Examination of economic, political, social, and cultural aspects of globalization. Consideration of the costs and benefits of globalization. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the global perspective knowledge exploration area.

IS 410 - Global Arts Study Abroad (4)
Study abroad experience in the arts. Intensive study of a global art tradition in its country of origin. Studies to include related art forms, culture, history, language. Visits to include archaeological sites, museums, and cultural events. Dates vary. English is the language of instruction.
Prerequisite(s): instructor permission.

IS 470 - France Exchange Program: Language II (4)
Course is taught at the University of Orleans in France and includes the study of French grammar. French is the language of instruction. Winter semester.
Prerequisite(s): permission of program coordinator.

IS 471 - France Exchange Program: Literature II (4)
Course is taught at the University of Orleans in France and includes the study of French literature. French is the language of instruction. Winter semester.
Prerequisite(s): permission of program coordinator.

IS 472 - France Exchange Program: Conversation, Comprehension, Writing II (4)
Course is taught at the University of Orleans in France and includes the study of French conversation, comprehension and writing. French is the language of instruction. Winter semester.
Prerequisite(s): permission of program coordinator.

IS 473 - France Exchange Program: Civilization II (4)
Course is taught at the University of Orleans in France and includes the study of French history, geography and contemporary civilization. French is the language of instruction. Winter semester.
Prerequisite(s): permission of program coordinator.

IS 490 - Directed Research in International Studies (2 to 8)
Research relating to area of specialization including a senior essay or research paper. Supervised by an international studies instructor. May be taken for no more than a total of 8 credits. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing and permission of program chairperson and instructor.

Liberal Studies Program

(248) 370-4680
Program Website: oakland.edu/bals

Director: *Cynthia Sifonis*
Liberal Studies Executive Committee: *Ken Elder (Physics), Henri Gooren (Sociology and Anthropology), Eric LaRock (Philosophy), Daniel Lorca (Modern Languages and Literatures)*
Chief Adviser: *Cynthia Sifonis (Psychology)*

Based in the College of Arts and Sciences, the liberal studies major program is an innovative and rigorous interdisciplinary approach to undergraduate education. 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 outcomes of this program include enhanced abilities in critical and analytical thinking and writing in addition to development of creative and collaborative abilities.

Requirements for the liberal arts major in liberal studies, B.A. program

The degree requirements include an 8-credit foundation, a core that is a minimum of 28 credits, a relevant methods course, and an 8-credit capstone experience.

1. Foundation courses (to be completed prior to junior standing)

- LBS 100 - Exploration of the Arts and Sciences **(4)** (*minimum grade of 2.5 required*)
- LBS 200 - Interdisciplinary Approaches to Liberal Studies **(4)** (*minimum grade of 2.5 required*)

2. Program core: choose option a or b

a. An interdisciplinary College of Arts and Sciences concentration
Concentration must require at least 28 credit hours, of which 20 credits must be at the 300 level or above. All courses must be completed with a minimum grade of 2.0.

b. A combination of minors from two intellectually distinct areas
Together the minors must have at least 20 credits at the 300 level or above; each minor must include at least 8 credit hours at the 300-level. Both minors must be in the College of Arts and Sciences unless an exception request is approved. All courses must be completed with a minimum grade of 2.0.

3. A discipline-specific methods course relevant to the program core

This course must be approved by the program adviser. A minimum grade of 2.0 is required.

4. Capstone courses

- LBS 495 - Senior Thesis I (4) *(minimum grade of 3.0 required)*
- LBS 496 - Senior Thesis II (4) *(minimum grade of 3.0 required)*

Additional information

The Liberal Studies Executive Committee maintains a current list of concentrations and minors that meet the above requirements. Examples of approved minor combinations include philosophy and psychology and biology and music. Examples of approved concentrations include American studies, environmental studies and religious studies. See the program website (oakland.edu/bals) for additional information.

Program honors

Program honors may be granted to graduating seniors in liberal studies on the basis of high academic achievement (minimum 3.60 overall grade point average) and excellence in the senior thesis (LBS 495/LBS 496). The Liberal Studies Executive Committee will determine program honors recipients.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

LIBERAL STUDIES

LBS 100 – Exploration of Arts and Sciences (4)
Broad survey of the three major discipline areas: humanities, social sciences, and natural sciences. General methods of inquiry will be stressed. Course will be unified by focus on interdisciplinary theme. Satisfies the university general education requirement in the western civilization knowledge exploration area.

LBS 200 - Interdisciplinary Approaches to Liberal Studies (4)
Basic preparation for interdisciplinary study. Students develop knowledge, skills and methods in interdisciplinary research on focused topics. Draws on humanities, natural sciences, social sciences and fine arts to prepare students for advanced work in liberal studies. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): LBS 100 with a grade of 2.5 or higher.

LBS 495 - Senior Thesis I (4)
Participatory, interdisciplinary seminar in which students develop topics, establish research parameters, and prepare a thesis proposal. First in a two course sequence.
Prerequisite(s): LBS 200, senior standing and permission of instructor.

LBS 496 - Senior Thesis II (4)
Continuation of LBS 495. Students complete the research and writing of their liberal studies thesis papers and presentations, which synthesize their preceding liberal studies work. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): LBS 495 and permission of instructor

Department of Linguistics

1024 HUMAN HEALTH BUILDING
(248) 370-2175
Fax: (248) 370-3144
Department Website: oakland.edu/linguistics

Chairperson: *Samuel Rosenthall*

Professors emeriti: *Carlo Coppola (Hindi-Urdu), Daniel H. Fullmer, William Schwab*

Professors: *Michael B. Smith*

Associate professors: *Lisa Levinson, Kuniko Nielsen, Samuel Rosenthall*

Associated faculty: *Alice S. Horning (Writing and Rhetoric; Linguistics)*
Special instructor: Rebecca Gaydos

Chief adviser: *Samuel Rosenthall*

It is hard to imagine spending one waking moment without language. Whether we are alone or among other people, whether we dream or daydream, whether we write poetry, follow a recipe, cheer for the home team, speak or sing, language is involved. All normal children acquire a native language, no matter where they are born, what the language is or what their home life is like. People who are deaf have language; so do those who are blind, mute, completely paralyzed, intellectually disabled or emotionally disturbed. Language can be disrupted by injury or disease, processed by machines, altered for special occasions and exploited for ulterior motives. Despite this extraordinary presence, versatility and variability, every human language, whether Old English or Modern Japanese, shares universal features. Linguistics is the discipline that studies such matters concerning language. Because language is so pervasive and so peculiarly human, students of linguistics find careers in many different areas. Some, such as teachers, computer scientists and speech therapists, use linguistics directly; others, such as market analysts, editors and advertising executives, use it indirectly. Still others use their undergraduate major in linguistics as a springboard to careers in law, education, business, artificial intelligence and international relations, as well as graduate study in linguistics and other fields.

Requirements for the liberal arts major in linguistics, B.A. program

To earn a liberal arts major in linguistics, students must complete the following program of study. Credit toward the major will only be allowed for courses completed with a grade of 2.0 or higher. A cumulative grade point average (GPA) of 3.00 is required for courses included in the major.

1. A minimum of 32 credits including

a. Required courses

- LIN 201 - Introduction to Linguistics (4) (with a grade of 3.0 or higher)
- LIN 302 - Historical Linguistics (4) or LIN 307 - Introduction to Semantics (4)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)

b. Capstone course

- LIN 470 - The History of Linguistics (4) (fulfills the university general education requirement for the capstone experience and for a writing intensive course in the major or general education)

c. Eight credits of 300-400 level ALS or LIN courses

2. At least 8 additional credits from LIN or ALS courses

3. Either two years' study of a single foreign language, including American Sign Language, through the 215 level or higher, or LIN 409 and one year's study of a single foreign language through the 115 level or higher

4. Only two ALS or LIN courses at the 100 and 200 level will be accepted for credit toward the major.

Requirements for the modified major in linguistics with a minor in computer science, B.A. program

To earn the minor, students must complete:

1. A minimum of 24 credits in linguistics courses to include

- LIN 201 - Introduction to Linguistics (4) (with a grade of 3.0 or higher)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)
- LIN 470 - The History of Linguistics (4) (fulfills the university general education requirement for the capstone experience and for a writing intensive course in the major or general education)

2. A minimum of 20 credits in CSE courses as follows

- CSE 120 - Introduction to Computing and Programming using Excel (4)
- CSE 130 - Introduction to Computer Programming (4)
- three additional CSE courses chosen in consult with a faculty adviser

Note

At least 12 of these credits must be taken at Oakland University. An average grade of at least 2.0 is required in courses counted toward this minor. See requirements for the minor in computing in the School of Engineering and Computer Science section of this catalog.

3. Required course

- PHL 370 - Advanced Symbolic Logic (4)

Note

Credits toward the modified major will only be allowed for courses completed with a grade point of 2.0 or higher. A cumulative grade point average (GPA) of 3.00 is required for all ALS and LIN courses in the modified major.

Departmental Honors

The Department of Linguistics offers departmental honors to students who achieve a grade point average of 3.60 or above in courses required for the major in both the liberal arts major and the modified major with a minor in

computer science. The department also recommends honors for students who have modified majors in other departments with concentrations in linguistics.

Requirements for the liberal arts minor in linguistics

To earn a liberal arts minor in linguistics, students must complete a minimum of 20 credits including:

1. Required courses

- LIN 201 - Introduction to Linguistics (4) (with a grade of 3.0 or higher)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)

2. At least 4 credits from 300-400 level LIN or ALS courses

3. Credit toward the minor will only be allowed for courses completed with a grade of 2.0 or higher.

Additional information

A cumulative grade point average (GPA) of 3.00 is required for courses included in the minor.

Requirements for the Teaching English as a Second Language minor

To earn a Teaching English as a Second Language minor, students must complete a minimum of 24 credits to include:

- LIN 201 - Introduction to Linguistics (4)
- ALS 317 - Models of Second Language Acquisition (4)
- ALS 375 - Language and Culture (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)
- ALS 438 - Theory and Practice in Language Testing (4)

Additional information

Credit toward the minor will only be allowed for courses completed with a grade of 2.0 or higher.
To qualify for ALS 419, students must complete ALS 418 with a grade of 3.0 or higher.
Non-native speakers of English, in addition, must satisfactorily complete an oral and written examination of English.

Requirements for a modified major with a concentration in linguistics

Students may elect a modified major in anthropology, communication, English, psychology, or sociology, with a concentration in linguistics.

The core in linguistics requires 16 credits including

- LIN 201 - Introduction to Linguistics (4) (with a grade of 3.0 or higher)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)

An additional 4 credits in linguistics courses for the specific concentrations

- ALS 374 - Cross-Cultural Communication (4) (anthropology) or ALS 375 - Language and Culture (4) (anthropology)

- LIN 305 - Phonetic Theory (4) (communication)
- LIN 376 - History of the English Language (4) (English)
- ALS 335 - Psycholinguistics (4) (psychology)
- ALS 376 - Language and Society (4) (sociology)

Note
For requirements in the modified majors, students should consult the appropriate department.

Teaching English as a Second Language (TESL) Certificate

Requirements for the certificate in teaching English as a second language

Students may earn a certificate in teaching English as a second language (TESL) by completing the courses listed below. In all cases a student must complete 12 credits in linguistics courses at OU and must satisfy the Practicum Eligibility requirement to obtain the certificate. Students interested in this certificate should contact an adviser in the Department of Linguistics.

- LIN 201 - Introduction to Linguistics (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)

Practicum eligibility

Eligibility for the practicum (ALS 419) requires completion of ALS 418 with a grade of 3.0 or higher. Non-native speakers of English, in addition, must satisfactorily complete an oral and written examination of English.

Requirements for the Teaching English as a Second Language minor

To earn a Teaching English as a Second Language minor, student must complete a minimum of 24 credits to include the following courses: LIN 201, ALS 317, ALS 375, ALS 418, ALS 419, and ALS 438. Credit toward the minor will only be allowed for courses with a grade of 2.0 or higher.

Students must satisfy the Practicum Eligibility requirement to obtain the minor.

- LIN 201 - Introduction to Linguistics (4)
- ALS 317 - Models of Second Language Acquisition (4)
- ALS 375 - Language and Culture (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)
- ALS 438 - Theory and Practice in Language Testing (4)

Practicum eligibility

Eligibility for the Practicum (ALS 419) requires completion of ALS 418 with a grade of 3.0 or higher. Non-native speakers of English, in addition, must satisfactorily complete an oral and written examination of English.

Additional information

For students following the TESL minor as part of the OU Secondary Teacher Education Program, application to the STEP generally requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grad below 2.0. Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education minor adviser in the department.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

APPLIED LANGUAGE STUDIES

ALS 102 - Studies in Vocabulary and Etymology (4)
A basic course in vocabulary building. The origin of scientific and literary terms, foreign phrases in current use, borrowing of words into English from other languages, and the relationship between meaning and culture and meaning and context. Course not applicable to LIN programs.

ALS 176 - The Humanity of Language (4)
An introduction to the interrelationships of language and other cultural subsystems. Linguistic knowledge, the child's acquisition of language, sound and writing systems, meaning and communication, language and social groups are among the topics discussed. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

ALS 300 - Topics in Applied Language Science (4)
Specific topics and issues in the study of language in its cultural, social or historical contexts. May be repeated for additional credit under different subtitle.

ALS 317 - Models of Second Language Acquisition (4)
Development of second language ability among children and adults. Topics will include first language acquisition theory, the relationship of second language acquisition to linguistic theory, and will review and evaluate competing models of second language development.

ALS 320 - Linguistics and Reading (4)
Linguistic description and analysis of the process of getting meaning from print. The course will review competing linguistic models of the reading process and insights from first and second language acquisition, psycholinguistics, reading disorders and studies in writing.

ALS 334 - Language Development in Children (4)
Language acquisition in normal and abnormal children: stages of the acquisition process, the role of the environment, the relationship between language and the development of other skills, and language acquisition in children with sensory or psychological disorders.

ALS 335 – Psycholinguistics (4)
The psychology of language, the accommodation between the cognitive and physical structure of humans and the structure of language, the nature of the language learning process, and the consequences of language use. Identical with PSY 312. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

ALS 340 - The Biology of Language (4)
Animal communication and the evolution of man's capacity for language, development of language in normal and abnormal children, disorders of speech, hearing and language, language and the brain, and genetic aspects of language.

ALS 360 – Neurolinguistics (4)
The neurology of language: essentials of neuroanatomy, neurological mechanisms underlying language, aphasia and kindred disorders of speech; the relationship of language to memory, intelligence and cognition; and language and mental retardation and psychological disorders.

ALS 374 - Cross Cultural Communication (4)
A theoretical and practical examination of the role of language and nonverbal modes in intercultural communication. Problems and strategies for developing awareness of and operational skills in intercultural processes. Identical with AN 374. Satisfies the university general education requirement in U.S diversity.

ALS 375 - Language and Culture (4)
Language viewed as cultural behavior: its system, acquisition and use; its relation to history, attitudes and behavior; and standard languages, social dialects, pidgins and creoles. Identical with AN 375.

ALS 376 - Language and Society (4)
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. Identical with SOC 376.

ALS 418 - The Teaching of English as a Second Language (4)
Approaches, methods and techniques of teaching pronunciation, grammar and vocabulary. The use of language tests and laboratory techniques.
Prerequisite(s): LIN 201.

ALS 419 – Practicum (4)
Internship in an assigned ESL program under the guidance of a university instructor. Offered fall, winter and summer. Availability in summer is limited. For eligibility requirement, see Practicum Eligibility. May be taken for up to 8 credits.
Prerequisite(s): ALS 418 and permission of instructor.

ALS 438 - Theory and Practice in Language Testing (4)
A study of the different types of aptitude and achievement tests used in different language settings, including research and educational situations. Brief introduction to test statistics and computerized analysis of test scores. Practical aspects of testing: design, scoring and administration.
Prerequisite(s): ALS 317 or ALS 418 or permission of instructor.

ENGLISH AS A SECOND LANGUAGE

ESL 040 - Foundations in Listening and Speaking (2 or 4)
For non-native speakers of English only. To aid in the development of fundamental English proficiency skills so students will be able to communicate very simple spoken commands and understand simple directions in English. Includes a required lab component.
Prerequisite(s): placement.

ESL 041 - Foundations in Reading and Vocabulary Development (2 or 4)
For non-native speakers of English only. Designed to build fundamental English proficiency skills in phonics, vocabulary, and comprehension of text in English. Includes a required lab component.
Prerequisite(s): placement.

ESL 042 - Foundations in Writing and Sentence Structure for Academic Purposes (2 or 4)
For non-native speakers of English only. Designed to build fundamental grammar skills in written English so that students can construct simple sentences. Includes a required lab component.
Prerequisite(s): placement.

ESL 044 - Foundations in Academic Communication (2 or 4)
For non-native speaker of English only. Provides an introduction to important skills that are needed to succeed in an academic setting at an American university, including learning about campus life, computers, typing and more.
Prerequisite(s): placement.

ESL 050 - Listening and Speaking I (2 or 4)
For non-native speakers only. To aid students in developing general listening and speaking skills through guided conversational practice. Students will be instructed in appropriate conversational techniques and will practice in group discussions.
Prerequisite: ESL 040 with grade of 2.5 or higher or placement.

ESL 051 - Reading and Vocabulary Development I (2 or 4)
For non-native speakers only. Designed to help students develop general-purpose reading skills and strategies. Emphasis on vocabulary development to enhance reading facility. May be repeated for up to 12 credits.
Prerequisite: ESL 041 with a grade of 2.5 or higher or placement.

ESL 052 - Writing and Sentence Structure for Academic Purposes I (2 or 4)
For non-native speakers only. Designed for students of ESL to improve basic writing skills. To be taken before content courses. May be repeated for up to 12 credits.
Prerequisite: ESL 042 with a grade of 2.5 or higher or placement.

ESL 053 - Conversation I (2 or 4)
For non-native speakers only. Guides students toward appropriate production of the vowels, consonants, stress, rhythm and intonation patterns of American English. Through structured conversation students will be introduced to slang, idioms, and informal words and expressions as encountered in everyday communicative situations. May be repeated for up to 12 credits.
Prerequisite(s): placement.

ESL 054 - Academic Communication I (2 or 4)
For non-native speakers only. Designed to provide an introduction to the skills necessary to succeed in the academic setting. Focus is on non-verbal communication and classroom etiquette. May be repeated for up to 12 credits
Prerequisite: ESL 044 with a grade of 2.5 or higher or placement.

ESL 055 - Introduction to American Culture and Customs (2 or 4)
For non-native speakers only. Introduction to the environment and culture of the United States. Students will participate in reading, writing, listening and speaking tasks as they relate to practical cultural information.

ESL 056 - Language Lab and Computer Literacy I (2 or 4)
For non-native speakers only. Practice in the development of computer literacy skills necessary for use in language laboratories and with internet based programs in English as a Second Language. May be repeated for up to 12 credit.
Prerequisite(s): placement.

ESL 057 - Topics in English as a Second Language I (2 or 4)
For non-native speakers only. Intensive study of particular topics in English as a Second language such as vocabulary enhancement through reading and writing. May be repeated for up to 12 credits.
Prerequisite(s): placement.

ESL 060 - Listening and Speaking II (2 or 4)
For non-native speakers only. To help students develop the necessary listening and speaking skills for an academic environment. Focus will be on listening and speaking in a variety of class settings (lecture, seminar, discussion) and will include note-taking and subject comprehension. May be repeated for up to 12 credits.
Prerequisite(s): ESL 050 with a grade of 2.5 or higher or placement.

ESL 061 - Reading and Vocabulary Development II (2 or 4)
For non-native speakers only. Designed to help students develop reading skills and strategies for academic purposes. Emphasizes critical analysis, handling heavy reading loads and developing appropriate technical vocabularies. May be repeated for up to 12 credits.
Prerequisite: ESL 051 with a grade of 2.5 or higher or placement.

ESL 062 - Writing and Sentence Structure for Academic Purposes II (2 or 4)
For non-native speakers only. Improving basic knowledge of paragraph structure, linear sequencing and grammatical structures used in writing. Focus on organization and coherence, and practice in transitions, conciseness and patterns of organization. May be repeated for up to 12 credits.
Prerequisite: ESL 052 with a grade of 2.5 or higher or placement.

ESL 063 - Conversation II (2 or 4)
For non-native speakers only. Provides intermediate students with structured conversation, study and practice. Designed to expand communication skills in English as a Second Language. May be repeated for up to 12 credits.
Prerequisite(s): ESL 053 with a grade of 2.5 or higher or placement.

ESL 064 - Academic Communication II (2 or 4)
For non-native speakers only. Designed to expand the skills necessary to succeed in the academic setting. Focus is on processing/synthesizing information received aurally. May be repeated for up to 12 credits.
Prerequisite: ESL 054 with a grade of 2.5 or higher or placement.

ESL 066 - Language Lab and Computer Literacy II (2 or 4)
For non-native speakers only. Practice in the development of intermediate computer literacy skills necessary for use in language laboratories and with internet based programs in English as a Second Language. May be repeated for up to 12 credits.
Prerequisite(s): ESL 056 with a grade of 2.5 or higher or placement.

ESL 067 - Topics in English as a Second Language II (2 or 4)
For non-native speakers only. An intensive study of intermediate topics in English as a Second Language such as the development of fluency with simple grammatical structures through reading, writing, speaking and listening. May be repeated for up to 12 credits.
Prerequisite(s): will vary with topic.

ESL 068 - Intermediate and Advanced Grammar (2 or 4)
For non-native speakers only, an intensive study of grammatical structures through reading, writing, speaking, and listening for the development of fluency of the English language.
Prerequisite(s): ESL 052 with a grade of 2.5 or higher or placement.

ESL 070 - Listening and Speaking III (2 or 4)
For non-native speakers only. Designed to help students reduce their accent for improved listener comprehension. Focus on accuracy in articulation at both the individual sound level and the sentential level. Will use interactive phonetics software to provide feedback. May be repeated for up to 12 credits.
Prerequisite: ESL 060 with a grade of 2.5 or higher or placement.

ESL 071 - Reading and Vocabulary Development III (2 or 4)
For non-native speakers only. Designed to help students refine reading skills and strategies for academic purposes. Emphasizes critical analysis and handling heavy reading loads and developing appropriate technical vocabularies. May be repeated for up to 12 credits.
Prerequisite: ESL 061 with a grade of 2.5 or higher or placement.

ESL 072 - Writing and Sentence Structure for Academic Purposes III (2 or 4)
For non-native speakers only. Designed to help students improve their writing skills. Combines extensive practice in rhetorical techniques with a review of grammatical structures. May be taken concurrently with content courses with the approval of the content course department. May be repeated for up to 12 credits.
Prerequisite: ESL 062 with a grade of 2.5 or higher or placement.

ESL 073 - Conversation III (2 or 4)
For non-native speakers only. Provides advanced students with structured conversation, study and practice. Designed for effective communication with native speakers of English in a variety of diverse settings. May be repeated for up to 12 credits.
Prerequisite(s): ESL 063 with a grade of 2.5 or higher or placement.

ESL 074 - Academic Communication III (2 or 4)
For non-native speakers only. Guides students toward mastery of the skills necessary to succeed in the academic setting. Focus is on student demonstration of their ability to communicate effectively in a variety of academic situations such that they are prepared for integration into general education courses. May be repeated for up to 12 credits.
Prerequisite(s): ESL 064 with a grade of 2.5 or higher or placement.

ESL 075 - ESL Test Preparation (2 or 4)
Preparation for successful performance on English language proficiency tests for ESL students. Students will learn specific test-taking strategies while improving their skills in reading, writing, speaking, and listening in English. May be repeated for up to 12 credits.
Prerequisite(s): Placement and permission of instructor.

ESL 076 - Language Lab and Computer Literacy III (2 or 4)
For non-native speakers only. Practice in the development of advanced computer literacy skills necessary for use in language laboratories and with internet based programs in English as a Second Language. May be repeated for up to 12 credits.
Prerequisite(s): ESL 070, 071 or 072 with a grade of 2.5 or higher or placement.

ESL 077 - Topics in English as a Second Language III (2 or 4)
For non-native speakers only. An intensive study of advanced topics in English as a Second Language such as the development of fluency with complex grammatical structures through reading, writing, speaking and listening. May be repeated for up to 12 credits.
Prerequisite(s): will vary with topic.

ESL 079 - Independent Study in English as a Second Language (2 or 4)
For non-native speakers only. Provides students with the opportunity to design a course of study that meets their particular English language needs. May be repeated for up to 12 credits.
Prerequisite(s): Permission of instructor.

ESL 080 - Listening and Speaking in the Business Setting (2 or 4)
For non-native speakers only. Designed for students who are either working in American business or plan to do so. Students will learn effective listening and speaking skills through oral presentations, accent reduction techniques and business jargon usage. May be repeated for up to 12 credits.
Prerequisite(s): ESL 070 with a grade of 2.5 or higher or placement.

ESL 081 - Reading and Vocabulary in the Business Setting (2 or 4)
For non-native speakers only. Designed to improve students' reading skills for the business environment and to familiarize students with the American business culture. Emphasizes handling of specialized subject matter, critical analysis and business vocabulary. May be repeated for up to 12 credits.
Prerequisite(s): ESL 071 with a grade of 2.5 or higher or placement.

ESL 082 - Writing and Grammar in the Business Setting (2 or 4)
For non-native speakers only. Designed to instruct students in the writing styles appropriate for American business. Students will learn to write typical business documents while emphasizing correct and appropriate grammar and vocabulary. May be repeated for up to 12 credits.
Prerequisite(s): ESL 072 with a grade of 2.5 or higher or placement.

ESL 085 - Cross-Cultural Communication in the Business Setting (2 or 4)
For non-native speakers only. Focus on common business customs and practices in the United States. Students will participate in reading, listening and speaking tasks as they relate to the American business environment.

ESL 087 - Topics in the Business Setting (2 or 4)
For non-native speakers only. For students who either are working in American business or plan to do so. A variety of professional and business topics will be offered which will match the student's current career or future career goals. May be repeated for up to 12 credits.
Prerequisite(s): will vary with topic.

ESL 090 - English for Instructional Purposes (2 or 4)
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.
Prerequisite(s): Graduate assistantship and ESL 080 with a grade of 2.5 or higher or placement.

ESL 092 - Research Papers and Thesis Writing for Graduate Students (2 or 4)
For non-native speakers only. Designed to aid graduate students with the tasks of writing substantive research papers or theses.
Prerequisite(s): graduate student standing and ESL 082 with a grade of 2.5 or higher or placement.

LINGUISTICS

LIN 177 - Introduction to Language Science (4)
A basic introduction to the modern study of language as rule-governed behavior. Among the topics considered are the linguistic principles pertaining to sounds, words, sentences and meanings in cultural subsystems that enable people to communicate. Examples and analysis of English and other languages.

LIN 180 - Linguistic Analysis (4)
Introduction to the analytical and theoretical concepts used by linguists to describe the structure of human language. Focus on an analysis of both sound and phrase structures. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

LIN 181 - Introduction to the Development of the English Language (4)
An introduction to the development of the English language from its Anglo-Saxon beginnings to the present, including the development of the sounds, words, sentences and meanings of English. Discussion of the spread and dominance of English as a world language and the many varieties of English will also be included. Satisfies the university general education requirement in foreign language and culture knowledge exploration area.

LIN 182 - Language and the Brain (4)
Overview of the anatomy and physiology of language in the brain, including discussion of human characteristics that make language possible, human problems with language that result from various pathologies, and the mind-brain relationship. Consideration of the nature of language as a specifically human phenomenon. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

LIN 183 - Formal Rules of Sound Structure (4)
Introduction to the description, organization and formal analysis of data dealing with the sound structure of human language. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

LIN 184 - Formal Rules of Phrase Structure (4)
Introduction to the description, organization, and formal analysis of data dealing with the phrase structure of human language. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

LIN 201 - Introduction to Linguistics (4)
Introduction to the modern study of human language. Emphasis on the analysis of sound and structure, variation and change, and linguistic universals. A grade of 3.0 or higher is required for admission to a major or minor in linguistics.

LIN 207 - Meaning in Language (4)
Broad examination of how humans use language to convey meanings of various kinds, including literal, non-literal, and interpersonal meaning, and ways in which language reflects how humans think. Identical with COM 207.

LIN 300 - Topics in Linguistics (4)
Topics and problems selected by the instructor.
Prerequisite(s): permission of the Department of Linguistics.

LIN 301 - Linguistic Structures (4)
An introduction to synchronic linguistic analysis, with structural problems in natural languages.
Prerequisite(s): LIN 201.

LIN 302 - Historical Linguistics (4)
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.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 303 - Introduction to Phonology (4)
Fundamentals of phonological analysis using data from a variety of languages.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 304 - Introduction to Syntax (4)
Fundamentals of syntactic analysis using data from a variety of languages.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 305 - Phonetic Theory (4)
Introduction to articulatory and acoustic descriptions of spoken language, and training in the recognition of production of sounds found in languages other than English.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 307 - Introduction to Semantics (4)
Fundamentals of semantic analysis using data from a variety of languages.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 315 - Computer Parsing of Natural Languages (4)
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.
Prerequisite(s): LIN 201 and CSE 130.

LIN 350 - Linguistic Typology (4)
Patterns of variation in the world's languages; linguistic universals that provide insight into the complexity of the human language faculty.
Prerequisite(s): LIN 201 with a grade of 3.0 or higher.

LIN 357 - Cognitive Linguistics (4)
A cognitive/functional approach to grammatical theory focusing on the relation between language and cognition in the study of semantic, lexical and grammatical structure.
Prerequisite(s): LIN 201 or permission of instructor.

LIN 376 - History of the English Language (4)
Identical with ENG 376.
Prerequisite(s): WRT 160.

LIN 403 - Phonological Theory (4)
A presentation of theory and application of phonological analysis with emphasis on original work.
Prerequisite(s): LIN 303 with a grade of 2.0 or higher.

LIN 404 - Syntactic Theory (4)
Presentation of theory and application of syntactic analysis, with emphasis on original work.
Prerequisite(s): LIN 304 with a grade of 2.0 or higher.

LIN 407 - Semantic Theory (4)
A presentation of theory and application of semantic analysis with emphasis on original work.
Prerequisite(s): LIN 307 with a grade of 2.0 or higher.

LIN 409 - Studies in the Structure of a Language (4)
A study of the structural aspects of an individual language to be determined by the instructor.
Prerequisite(s): LIN 303 or 304.

LIN 413 - Advanced Phonology (4)
Advanced course in phonology with emphasis on current issues in phonological theory.
Prerequisite(s): LIN 403.

LIN 414 - Advanced Syntax (4)
Advanced course in snytax with emphasis on current issues in syntactic theory.
Prerequisite(s): LIN 404.

LIN 417 - Advanced Semantics (4)
Advanced course in semantics with emphasis on current issues in semantic theory.
Prerequisite(s): LIN 407.

LIN 470 - The History of Linguistics (4)
Examination of the major movements and trends in the history of linguistics from ancient India to the present. Satisfies the university general education requirement for a writing intensive course in the major or general education, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing and 12 credits in LIN courses numbered above 300 including LIN 303 and 304.

LIN 475 - Philosophy of Language (4)
Identical with PHL 475.
Prerequisite(s): Junior standing. LIN 207 or one course in logic (PHL 107 strongly recommended).

LIN 480 - Seminar In Linguistics (4)
Topics and problems selected by the instructor.
Prerequisite(s): LIN 201 and permission of the instructor.

LIN 490 - Independent Study (2 or 4)
Special research projects in linguistics. Graded numerically or satisfactory/unsatisfactory by written agreement with linguistics faculty supervisor.
Prerequisite(s): LIN 201 and instructor permission.

LATIN LANGUAGE AND ROMAN CULTURE

LTN 114 - Introduction to Latin Language and Roman Culture (4)
A two-semester sequence in the fundamentals of Latin language and classical Roman culture. A beginning course. LTN 114 must be taken first. LTN 114 and LTN 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

LTN 115 - Introduction to Latin Language and Roman Culture (4)
A two-semester sequence in the fundamentals of Latin language and classical Roman culture. A beginning course. LTN 114 must be taken first. LTN 114 or LTN 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): LTN 114

Department of Mathematics and Statistics

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Chairperson: *László Lipták*

Professors emeriti: *Louis R. Bragg, J. Curtis Chipman, David J. Downing, George F. Feeman, Robert H. Kushler, Louis J. Nachman, Sze Kai Tsui*

Distinguished professor: *Eddie Cheng, Meir Shillor*

Professors: *Kevin T. Andrews, Baruch Cahlon, Charles C. Cheng, Jerrold W. Grossman, Ravindra Khattree, László Lipták, Gary C. McDonald, Subbaiah Perla, Darrell Schmidt, Irwin E. Schochetman, Meir Shillor, Anna Spagnuolo, J. Barry Turett, Stuart S. Wang, Stephen J. Wright, Wen Zhang*

Associate professors: *Dorin Drignei, Serge Kruk, Theophilus Ogunyemi, Xianggui Qu, Libin Rong, Tanush Shaska, Peter Shi*

Assistant professors: *Aycil Cesmelioglu, Li Li, Daniel Steffy, Nghia T.A. Tran*

Adjunct Professors: *Jan Bradbury, David Lamb, Charles Wampler*

Chief adviser: *Darrell Schmidt*

The Department of Mathematics and Statistics offers programs of study leading to the Bachelor of Arts degree with a major in mathematics, Bachelor of Science degree with a major in mathematics or applied statistics, Bachelor of Science degree in actuarial science that is jointly offered with the Department of Economics, Master of Science degree in industrial applied mathematics, Master of Science degree in applied statistics, Master of Arts degree in mathematics and Doctor of Philosophy degree in applied mathematical sciences. In addition, the department offers courses that are required or recommended as electives in other academic programs. For further information on the graduate programs offered by the department, see the *Oakland University Graduate Catalog*.

Students are encouraged to elect a variety of applied courses, both inside and outside of the department. The greater the familiarity with applications of mathematics, the greater the possibilities of employment in a world that is becoming more mathematics-oriented each year. Concentrations or minors, or even second majors, are available in computer science, the life sciences, the physical sciences, engineering, business administration, the social sciences and linguistics. Mathematics majors are advised to consult department faculty when planning their programs.

Prerequisites and Placement

Each student enrolling in a course offered by the Department of Mathematics and Statistics must meet the prerequisites for that course. Students who do not meet the prerequisites will not be permitted to enroll or remain enrolled in the course.

The prerequisites may be met in a number of ways: by completing the stated prerequisite course(s) with a grade of 2.0 or better; by completing an equivalent course at another university, college or community college with a grade of 2.0 or better; or through placement.

Grades below 2.0 in prerequisite courses are not acceptable, nor are high school courses. In rare cases, the department may grant permission to enroll in a course without the formal prerequisites. Students with unusual circumstances should consult the instructor of the course or a department adviser.

Placement into levels **E, I, R**, or **C,** described below, is determined by the mathematics ACT (or SAT equivalent) Score or by a placement test. For details on this placement, consult an adviser or the department's web page. The levels of placement are as follows:
E: The student is ready for MTH 061 * or MTH 118.
I: The student has demonstrated competence through MTH 061* and is ready for MTH 062* or MTH 118.
R: The student has demonstrated competence through MTH 062* and is ready for MTH 118, MTH 121, MTH 141, MTE 210 or STA 225.
C: The student has demonstrated competence through MTH 141 and is ready for MTH 118, MTH 121, MTH 122, MTH 154 ,MTE 210, STA 225, STA 227 or STA 228.
Formal course competency credit is not available in MTH 061*, MTH 062* or MTH 141.

***See information concerning these skill enrichment courses below.**

Capstone courses: The department offers the following options for students to satisfy the capstone requirement for their major: ACS 450 - Financial Mathematics , MTH 414 - History of Mathematics , STA 428 - Introduction to Mathematical Statistics II.

Departmental Honors

Departmental honors may be awarded to graduating seniors in either the B.A. or the B.S. degree program who have demonstrated outstanding achievement in their mathematical science course work, as evidenced by high grades, high level courses and/or more than a minimum number of courses. Further information is available from the department chairperson. In addition, the department will normally present the Louis R. Bragg Graduating Senior Award each year to the most outstanding graduate in any of the departmental majors.

Skill Enrichment Courses: MTH 061 and MTH 062

MTH 061 and MTH 062 are academic skill enrichment courses specially designed to aid incoming students who need additional preparation prior to entering one of the university's standard mathematical sciences sequences. Note that when a student exercises the repeat option and takes MTH 061 or MTH 062 to replace a grade previously earned in MTH 011, MTH 012, MTH 102, MTH 103, MTH 111 or MTH 112, the grade earned in MTH 061 or MTH 062 will replace the former grade.

Requirements for the liberal arts major in mathematics, B.A. program

To earn the Bachelor of Arts degree with a major in mathematics, students must:

1. Complete a core of eight courses with a grade of at least 2.0 in each.

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- MTH 302 - Introduction to Advanced Mathematical Thinking (4)
- MTH 452 - Advanced Calculus I (4)
- MTH 475 - Abstract Algebra I (4)
- STA 226 - Applied Probability and Statistics (4)

2. Complete three additional 3- or 4-credit courses in the mathematical sciences chosen from

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4)
- MOR 242 - Elementary Models in Operations Research (4)
- Courses labeled MTH, APM, MOR or STA at the 300-400 level, with the exception of MTH 497

Each course must be completed with a grade of at least 2.0. Majors in the secondary education program must choose APM 263, MTH 462 and MTH 414 as these three courses. Well-prepared students may substitute 500-level courses with the approval of the departmental adviser.

3. Complete one of the following courses with a grade of at least 2.0.

- CSE 130 - Introduction to Computer Programming (4)
- CIT 130 - Introduction to Computer Programming (0 OR 4)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- CSE 230 - Object-Oriented Computing I (4)

4. Complete two additional 3- or 4-credit courses, as approved by the departmental adviser, in an area related to mathematics, with an average grade of at least 2.0.

The area chosen will normally be in science, engineering, computer science, economics or statistics. Courses used to satisfy this requirement may also be used to satisfy university general education or college exploratory requirements. Students in the secondary education program will be deemed to have satisfied this requirement with their secondary teaching minor, regardless of its subject area.

Requirements for the major in mathematics, B.S. program

To earn the Bachelor of Science degree with a major in mathematics, students must:

1. Complete a core of nine courses with a grade of at least 2.0 in each.

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- MTH 302 - Introduction to Advanced Mathematical Thinking (4)
- MTH 452 - Advanced Calculus I (4)
- MTH 475 - Abstract Algebra I (4)
- MTH 453 - Advanced Calculus II (4) or MTH 476 - Abstract Algebra II (4)
- STA 226 - Applied Probability and Statistics (4)
-

2. Complete four additional 3- or 4-credit courses in the mathematical sciences chosen from

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4)
- MOR 242 - Elementary Models in Operations Research (4)
- Courses labeled MTH, APM, MOR or STA at the 300-400 level, with the exception of MTH 497 .
- Each course must be completed with a grade of at least 2.0.
- APM 263 , MTH 462 and MTH 414 must be included among these four courses for students in the secondary education program. Well-prepared students may substitute 500-level courses with the approval of the departmental adviser.

3. Complete CSE 230 - Object-Oriented Computing I (4) with a grade of at least 2.0.

4. Complete three additional 3- or 4-credit courses, as approved by the departmental adviser, in an area related to mathematics, with an average grade of at least 2.00.

The area chosen will normally be in science, engineering, computer science, economics or statistics. Courses used to satisfy this requirement may also be used to satisfy university general education or college exploratory

requirements. Students in the secondary education program will be deemed to have satisfied this requirement with their secondary teaching minor, regardless of its subject area.

Requirements for the major in applied statistics, B.S. program

To earn the Bachelor of Science degree with a major in applied statistics, students must:

1. Complete 28 credits in statistics.

- STA 226 - Applied Probability and Statistics (4)
- STA 402 - Applied Linear Models I (4)
- STA 427 - Introduction to Mathematical Statistics I (4)
- STA 428 - Introduction to Mathematical Statistics II (4)
- 12 credits chosen from STA courses numbered above 300 (but not STA 501-502)

2. Complete

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)

And one more course chosen from

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4)
- APM 332 - Applied Matrix Theory (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- MTH 452 - Advanced Calculus I (4)
- MOR 242 - Elementary Models in Operations Research (4)
- MOR 454 - Linear and Integer Optimization (4)
- MOR 455 - Nonlinear Optimizations (4)
- MOR 456 - Stochastic Models in Operations Research (4)

3. Complete one of the following.

- CSE 130 - Introduction to Computer Programming (4)
- CIT 130 - Introduction to Computer Programming (0 OR 4)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)

4. Complete one of the following.

- ENG 380 - Advanced Critical Writing (4)
- WRT 380 - Special Topics in Professional Writing (4)
- WRT 381 - Science Writing (4)
- WRT 382 - Business Writing (4)

5. Complete a course in ethics given by the Department of Philosophy.

6. Complete 16 credits in a single area outside the Department of Mathematics and Statistics to which statistics could be applied.

The 16 credits must include at least one course that is quantitatively oriented. The rest of the 16 credits could come from prerequisite courses or any related courses. These 16 credits must be approved in advance by an adviser in the Department of Mathematics and Statistics. The courses need not be in a single department, but the

total package should constitute a substantive examination of a single area. Courses used to satisfy this requirement may also be used to satisfy university general education or college exploratory requirements.

7. Earn a minimum grade of 2.0 in each mathematical sciences and computer science course used to satisfy the major requirements.

Requirements for the liberal arts major in actuarial science, B.S. program

Because an actuary needs a blend of mathematics, economics, statistics, and finance, this major is offered jointly by the Department of Mathematics and Statistics and the Department of Economics. However, the major in actuarial science differs significantly from the other majors offered by these two departments because it (1) prepares students for jobs in actuarial science as well as provides them with the educational background necessary to pursue an advanced degree in economics, mathematics, statistics, or business administration, (2) integrates two distinctly different disciplines, thereby providing students with a breadth of knowledge that is needed in our fast changing world, and (3) provides students with the analytical and reasoning skills to successfully complete the first two exams in actuarial science offered by the Society of Actuaries.

To earn the Bachelor of Science degree with a major in actuarial science, students must complete a minimum of 124 credits. All required and cognate courses must be completed with a minimum grade of 2.0.

1. Complete

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)

2. Complete

- ACS 300 - Foundations of Probability and Calculus (1)
- unless the student has a grade of at least 3.5 in MTH 254 - Multivariable Calculus or permission of the chief undergraduate adviser
- STA 226 - Applied Probability and Statistics (4)
- STA 427 - Introduction to Mathematical Statistics I (4)

3. Complete

- ECN 210 - Principles of Economics (6)
- or both
  ECN 201 - Principles of Microeconomics (4) and ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200 - Principles of Macroeconomics)
- ECN 302 - Intermediate Macroeconomics (3) or ECN 321 - Financial Markets and the Economy (3)
- ECN 303 - Managerial Economics (3)

4. Complete

- QMM 241 - Statistical Methods for Business II (3)

5. Complete

- FIN 322 - Managerial Finance I (4)
- FIN 416 - Investment Analysis (3) or FIN 425 - Financial Derivatives (3)
- FIN 422 - Managerial Finance II (3)

6. Complete

- ECN 405 - Econometrics (3) or STA 402 - Applied Linear Models I (4)
- ACS 450 - Financial Mathematics (3)

7. Complete

- MIS 314 - Business Database Systems (3)
- MIS 443 - Business Analytics (3) or MIS 546 - Business Analytics (3)

8. Complete one of the following electives

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- STA 425 - Elements of Stochastic Processes (4)
- STA 428 - Introduction to Mathematical Statistics II (4)

9. Complete cognate courses

- ACC 200 - Introductory Financial Accounting (4)
- ACC 301 - Financial Reporting and Analysis (3)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4) (0 OR 4)
- WRT 382 - Business Writing (4)

10. Complete ACHIEVE courses

- SBC 199 - ACHIEVE I (0) (to be taken during the freshman year or first year as an actuarial science major)
- SBC 299 - ACHIEVE II (0) (to be taken during the fall semester of the sophomore year or the second semester as an actuarial science major)
- ACS 399 - ACHIEVE 3 Actuarial Sciences (0) (to be taken during the second semester of the sophomore year or the third semester as an actuarial science major)

11. Earn a minimum grade of 2.0 in all courses applied to the major including cognate courses for the major.

Secondary Teacher Education Program (STEP): Mathematics

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Generally, eligibility into the STEP requires a GPA of 3.00 in both the major and the minor, and an overall GPA of 2.80. No single major or minor course grade may be below 2.0. Second undergraduate degree candidates completing major and/or minors may be required to complete additional course work at Oakland University beyond the stated minimums. Students must consult with the secondary education adviser in the department.

1. Complete the requirements for a B.A. or B.S. degree in mathematics

Within those requirements, include the following courses among the mathematics electives:

- APM 263 - Discrete Mathematics (4)
- MTH 462 - Geometric Structures (4)
- MTH 414 - History of Mathematics (4)

2. Complete a 20-28 credit secondary teaching minor.

3. Complete the required sequence of undergraduate coursework in education consisting of

- SED 300 - Introduction to Secondary Education (4) (must be completed prior to STEP application)
- RDG 338 - Teaching Reading in the Content Areas (4) (must be completed prior to the final internship semester)
- DLL 397 - Digital Technologies in the Secondary Classroom (4) (must be completed prior to the final internship semester)
- FE 406 - Educational Psychology for K-12 Educators (4) (must be completed prior to the final internship semester)
- SED 427 - ST: Teaching Secondary in the Minor Methods (4) or SED 426 - Teaching in Your Minor Field: Mathematics (4) (must be completed prior to the final internship semester)
- SE 401 - Introduction to Students with Special Needs (4)
- SED 428 - ST: Teaching Secondary of the Major Methods (4)
- SED 455 - Internship in Secondary Education (12)

Additional information

Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Mathematics and Statistics and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

Departmental Honors

Departmental honors may be awarded to graduating seniors in either the B.A. or the B.S. degree program who have demonstrated outstanding achievement in their mathematical science course work, as evidenced by high grades, high level courses and/or more than a minimum number of courses. Further information is available from the department chairperson. In addition, the department will normally present the Louis R. Bragg Graduating Senior Award each year to the most outstanding graduate in any of the departmental majors.

Requirements for the liberal arts minor in mathematics

To qualify for the liberal arts minor in mathematics, students must take a minimum of 20 credits chosen from

- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4)
- MOR 242 - Elementary Models in Operations Research (4)
- STA 226 - Applied Probability and Statistics (4)
- Any 300-400 level courses labeled MTH, APM. MOR or STA, except MTH 497

Note

Each course used to satisfy the minor requirements must be completed with a grade of at least 2.0.

Students majoring in engineering or computer science are not eligible for this program and should consult the requirements for the applied mathematics minor for students in the School of Engineering and Computer Science.

Requirements for the minor in applied statistics

To qualify for the minor in applied statistics, students must take a minimum of 20 credits of STA courses including

- STA 226 - Applied Probability and Statistics (4)
- STA 402 - Applied Linear Models I (4)

- At least three other STA courses at the 300 level or above, excluding STA 501 and STA 502

Note
Each course used to satisfy the minor requirements must be completed with a grade of at least 2.0.

Requirements for the secondary teaching minor in mathematics

To qualify for a secondary teaching minor in mathematics, students must take 28 credits consisting of

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 263 - Discrete Mathematics (4)
- STA 226 - Applied Probability and Statistics (4)
- MTH 302 - Introduction to Advanced Mathematical Thinking (4)
- MTH 462 - Geometric Structures (4)
- SED 427 - ST: Teaching Secondary in the Minor Methods (4)

Note
Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education adviser in the department.

Requirements for the applied mathematics minor for students in the School of Engineering and Computer Science

To qualify for the applied mathematics minor, students in the School of Engineering and Computer Science (SECS) must complete the following courses with a grade of at least 2.0 in each.

- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- MTH 302 - Introduction to Advanced Mathematical Thinking (4)
- STA 226 - Applied Probability and Statistics (4) (or another statistics course approved by the departmental adviser)
- MTH 452 - Advanced Calculus I (4) or MTH 475 - Abstract Algebra I (4)

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the *Schedule of Classes*.

MATHEMATICS

MTH 061 - Elementary Algebra (4)
Order of operations; algebra of exponents; variable expressions; linear equations and inequalities in one variable; graphing and lines; linear systems of equations in two and three variables; polynomial arithmetic; factoring; solving equations by factoring; applications and problem solving.

MTH 062 - Intermediate Algebra (4)
Rational expressions; radicals and rational exponents; solving rational and radical equations, quadratic equations; introduction to functions and their graphs; exponential and logarithmic functions; applications and problem solving.
Prerequisite(s): MTH 061 (or MTH 011) with a grade of 2.0 or higher or placement exam.

MTH 118 - Mathematical Sciences in the Modern World (4)
Designed for students without an extensive mathematics background who wish to explore the ways people use mathematical sciences to solve problems that arise in modern society. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

MTH 121 - Linear Programming Elementary Functions (4)
Systems of equations, matrices, and linear programming (simplex method); rational, exponential and logarithmic functions. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 062 with a grade of 2.0 or higher or placement.

MTH 122 - Calculus for the Social Sciences (4)
The basic concepts, theorems and applications to the social sciences of the differential and integral calculus of one and several variables. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 121 with a grade of 2.0 or higher or MTH 141 with a grade of 2.0 or higher or placement.

MTH 141 – Precalculus (4)
Functions, roots of polynomials, rational, exponential and logarithmic functions, trigonometric functions (including graphs, identities, inverse functions, equations and applications), complex numbers, analytic geometry and conic sections.
Prerequisite(s): MTH 062 with a grade of 2.0 or higher or placement.

MTH 154 - Calculus I (4)
A detailed study of limits, continuity, derivatives of algebraic and transcendental functions, applications of derivatives, numerical techniques, integrals and the Fundamental Theorem of Calculus. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 141 with a grade of 2.0 or higher or placement.

MTH 155 - Calculus II (4)
A detailed study of methods of integration, applications of the integrals, improper integrals, sequences, series and power series, polar coordinates, and parametric curves. Satisfies the university general education requirement for the knowledge applications integration area. Prerequisites for knowledge applications: completion of the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 154 with a grade of 2.0 or higher.

MTH 205 - Special Topics (2 or 4)
Intermediate study of a selected topic in mathematics. May be repeated for additional credit.

MTH 254 - Multivariable Calculus (4)
A study of vectors, polar coordinates, three-dimensional geometry, differential calculus of functions of several variables, exact differential equations, multiple integrals, line and surface integrals, and vector fields.
Prerequisite(s): MTH 155 with a grade of 2.0 or higher.

MTH 275 - Linear Algebra (4)
Study of general vector spaces, linear systems of equations, linear transformations and compositions, Eigenvalues, eigenvectors, diagonalization, modeling and orthogonality. Provides a transition to formal mathematics.
Prerequisite(s): MTH 155 with a grade of 2.0 or higher.

MTH 290 - Independent Study (2 or 4)
Reading or research on some mathematical topic. May be repeated for additional credit.
Prerequisite(s): permission of department.

MTH 301 - Putnam Seminar (2)
This seminar meets one evening per week. Students solve and present solutions to challenging mathematical problems in preparation for the William Lowell Putnam Mathematical Competition, a national undergraduate mathematics competition. May be repeated three times for additional credit.
Prerequisite(s): permission of instructor.

MTH 302 - Introduction to Advanced Mathematical Thinking (4)
The propositional and predicate calculus, set theory, methods of mathematical proof, inductive and recursive thinking, relations and functions, infinity. Emphasis is on rigorous proofs of mathematical statements. Offered every fall.
Prerequisite(s): MTH 275 with a grade of 2.0 or higher or APM 263 with a grade of 2.0 or higher or permission of department.

MTH 352 - Complex Variables (4)
A study of analytic functions of a complex variable including differentiation and integration, series representations, the theory of residues and applications.
Prerequisite(s): MTH 254 with a grade of 2.0 or higher.

MTH 405 - Special Topics (2 or 4)
Advanced study of a selected topic in mathematics. May be repeated for additional credit. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): permission of instructor.

MTH 414 - History of Mathematics (4)
Mathematics from ancient to modern times, its growth, development and place in human culture. Offered every winter. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): MTH 302 with a grade of 2.0 or higher.

MTH 415 - Foundations of Mathematics: Mathematical Logic and Set Theory (4)
An examination of the logical foundations of mathematics including analysis of the axiomatic method, basic set theory, cardinal and ordinal numbers, and the axiom of theory.
Prerequisite(s): MTH 302 with a grade of 2.0 or higher.

MTH 452 - Advanced Calculus I (4)
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.
Prerequisite(s): MTH 254, MTH 275 and MTH 302 with a grade of 2.0 or higher in each course, or permission of department.

MTH 453 - Advanced Calculus II (4)
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.
Prerequisite(s): MTH 452 with a grade of 2.0 or higher.

MTH 461 - General Topolog (4)
A study of topological spaces and continuous functions. Separation and countability properties, connectedness, compactness and local properties.
Prerequisite(s): MTH 302 with a grade of 2.0 or higher.

MTH 462 - Geometric Structures (4)
A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry and transformation geometry. Offered every fall.
Pre/Corequisite(s): MTH 302 with grade of 2.0 or higher or permission of department.

MTH 465 - Differential Geometry (4)
Theory of curves and surfaces in Euclidean space with an introduction to the theory of matrix Lie groups.
Prerequisite(s): MTH 453 with a grade of 2.0 or higher.

MTH 472 - Number Theory with Cryptography (4)
Structure of the integers, prime factorization, congruences, multiplicative functions, primitive roots and quadratic reciprocity, and selected applications including cryptography.
Prerequisite(s): MTH 302 with a grade of 2.0 or higher.

MTH 475 - Abstract Algebra I (4)
Groups, subgroups, cosets, homomorphisms, quotient groups, rings and ideals; field extensions and geometric constructions.
Prerequisite(s): MTH 275 and MTH 302 with a grade of 2.0 or higher or permission of department.

MTH 476 - Abstract Algebra II (4)
Polynomial rings, irreducibility of polynomials, field theory, solving polynomial equations, introduction to Galois theory and applications.
Prerequisite(s): MTH 475 with a grade of 2.0 or higher.

MTH 490 - Independent Study (2 or 4)
Reading or research on some mathematical topic. May be repeated for additional credit.
Prerequisite(s): permission of department.

MTH 497 - Apprentice College Teaching (2 or 4)
Open to any well-qualified junior or senior who obtains consent of a faculty member to assist in presenting a regular college course. The apprentice should be capable of assuming limited classroom teaching duties. May be repeated for additional credit. Graded S/U.
Prerequisite(s): permission of department.

ACTUARIAL SCIENCES

ACS 300 - Foundations of Probability and Calculus (1)
Short review of important tools in algebra and calculus and links to applications of probability functions as integration and summation tools. Application of sequences and series to discrete probability distributions. Basic probability theory and combinatorial probability.
Prerequisite(s): MTH 254 and STA 226, each with a grade of 2.0 or higher.

ACS 301 - Review for P/1 Exam (1)
Review of materials for the Society of Actuaries P/1 exam. Generally offered during summer semester.
Prerequisite(s): STA 226.

ACS 302 - Review for the FM/2 Exam (1)
Review of materials for the Society of Actuaries FM/2 exam. Generally offered during summer semester.
Prerequisite(s): FIN 422.

ACS 360 - Case Project (1)
Working in teams students will work on a real actuarial project presented by the instructor. Course is usually offered over the entire 14 week summer session and is a blend of online and in class meetings. Course is repeatable.
Prerequisite(s): actuarial science major.

ACS 380 - Special Topics in Actuarial Science (1 to 3)
Study of a selected topic in actuarial sciences. Emphasis is placed on the institutional rather than theoretical aspects of a topic. May be repeated a total of four times as long as the topic is different. Generally offered during summer semester. Course is repeatable for additional credit.
Prerequisite(s): actuarial science major.

ACS 399 - ACHIEVE 3 Actuarial Sciences (0)
Guides students through the job search process within the actuarial sciences major. Generally offered during the fall semester.
Prerequisite(s): SBC 199 and SBC 299.

ACS 401 - Review for MFE/3 Exam (1)
Review of materials for the Society of Actuaries MFE/3 exam. Generally offered during the summer semester.
Prerequisite(s): FIN 480.

ACS 450 - Financial Mathematics (3)
Review of interest rate theory, probability theory, and probability distributions. Development of a variety of actuarial and risk models such as contingent payment models; life contingency models; frequency, severity and aggregate claims models. Risk metrics such as standard deviation and Value at Risk (VaR) are also covered. Replaces APM/ECN 450 Risk Management. Usually offered during the winter semester. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): STA 427, FIN 322, ACC 301.

ACS 480 - Special Topics in Actuarial Science (1 to 3)
Intensive study of a selected topic in actuarial sciences. May be repeated a total of three times as long as the topic is different. Generally offered during summer semester.
Prerequisite(s): ACS 450.

APPLICABLE ANALYSIS AND MATHEMATICAL MODELING

APM 163 - Mathematics for Information Technology (4)
Systems of linear equations, matrix algebra and linear transformations. Elementary combinatorics, recursion and induction, sets and relations. Enrollment is limited to students in the Bachelor of Science in Information Technology program or with permission of the department. APM 163 cannot be used to replace APM 263 or MTH 275. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the formal reasoning knowledge foundation area or in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 122 with a grade of 2.0 or higher or MTH 154 with a grade of 2.0 or higher.

APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
Introduction to ordinary differential equations, Laplace transforms, linear systems, matrices, vectors, independence, Eigenvalues and eigenvectors, and applications. Replaces APM 257 and students cannot receive credit for both APM 255 and APM 257.
Prerequisite(s): MTH 155 with a grade of 2.0 or higher.

APM 263 - Discrete Mathematics (4)
Concepts and methods of discrete mathematics with an emphasis on their application to computer science. Logic and proofs, sets and relations, algorithms, induction and recursion, combinatorics, graphs and trees.
Prerequisite(s): MTH 155 with a grade of 2.0 or higher.

APM 332 - Applied Matrix Theory (4)
Eigenvalues, eigenvectors and their applications, matrix calculus, linear differential equations, Jordan canonical forms, and quadratic forms. Time will also be spent on various computational techniques.
Prerequisite(s): MTH 275 with grade of 2.0 or higher.

APM 357 - Elements of Partial Differential Equations (4)
Partial differential equations of physics, Fourier methods, Laplace transforms, orthogonal functions, initial and boundary value problems, and numerical methods.
Prerequisite(s): MTH 254 with a grade of 2.0 or higher and APM 255 with a grade of 2.0 or higher or APM 257 with a grade of 2.0 or higher.

APM 367 - Design and Analysis of Algorithms (4)
Computer algorithms, their design and analysis. Strategies for constructing algorithmic solutions, including divide-and-conquer dynamic programming and greedy algorithms. Development of algorithms for parallel and distributed architectures. Computational complexity as it pertains to time and space is used to evaluate the algorithms. A general overview of complexity classes is given. Identical with CSE 361.
Prerequisite(s): CSE 231 and APM 263 with a grade of 2.0 or higher.

APM 381 - Theory of Computation (4)
Formal models of computation, ranging from finite state automata toTuring machines. The computational models are used to discuss the languages recognized by these machines and address issues of computability. Identical with CSE 343.
Prerequisite(s): APM 367 with a grade of 2.0 or higher.

APM 405 - Special Topics (2 or 4)
Advanced study of a selected topic in applied mathematics. May be repeated for additional credit.
Prerequisite(s): permission of instructor.

APM 433 - Numerical Methods (4)
Propagation of errors, approximation and interpolation, numerical integration, methods for the solution of equations, Runge-Kutta and predictor-corrector methods. Offered fall of even-numbered years.
Prerequisite(s): MTH 275 with a grade of 2.0 or higher, APM 255 with a grade of 2.0 or higher (or APM 257 with a grade of 2.0 or higher) and knowledge of a scientific programming language, or permission of the instructor.

APM 434 - Applied Numerical Methods: Matrix Methods (4)
Systems of linear equations, Gaussian elimination, LU factorization, approximation and curve fitting, Eigenvalue problems, and nonlinear systems. Offered winter of odd-numbered years.
Prerequisite(s): MTH 254 with a grade of 2.0 or higher, MTH 275 with a grade of 2.0 or higher and knowledge of a scientific programming language, or permission of the instructor.

APM 450 - Risk Management (3)
Review of interest rate theory, probability theory, and probability distributions. Development of a variety of actuarial and risk models such as contingent payment models; life contingency models; frequency, severity and aggregate claims models. Risk metrics such as standard deviation and Value at Risk (VAR) are explored. Identical with ECN 450. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): FIN 322, ACC 301 and STA 427, each with a grade of 2.0 or higher.

APM 455 - Intermediate Ordinary Differential Equations (4)
Review of elementary techniques, existence and uniqueness theory, series methods, systems of equations, oscillation and comparison theorems, Sturm-Liouville theory, stability theory and applications.
Prerequisite(s): APM 255 with a grade of 2.0 or higher (or APM 257 with a grade of 2.0 or higher) and MTH 452 with a grade of 2.0 or higher.

APM 463 - Graph Theory and Combinatorial Mathematics (4)
Introduction to combinatorics. Topics include techniques of enumeration, fundamental concepts of graph theory, applications to transport networks, matching theory and block design. Offered every fall.
Prerequisite(s): MTH 275 with a grade of 2.0 or higher and APM 263 with a grade of 2.0 or higher.

APM 477 - Computer Algebra (4)
The mathematics and algorithms for symbolic computation. Includes theory of algebraic extensions, modular and p-adic methods, Groebner bases, factorization and zeros of polynomials, solutions to systems of polynomial equations, applications to automatic geometric theorem proving and closed form solutions to differential equations.
Prerequisite(s): MTH 275 with a grade of 2.0 or higher and knowledge of a scientific computer programming language, or permission of instructor.

APM 490 - Independent Study (2 or 4)
Reading or research on some topic in applied mathematics. May be repeated for additional credit.
Prerequisite(s): permission of department.

STATISTICS

STA 225 - Introduction to Statistical Concepts and Reasoning (4)
Statistical ideas and thinking relevant to public policy, quality improvement, and physical and social sciences. Data collection and presentation; association; normal distribution; probability and simulation; and confidence intervals, p-values, and hypothesis testing. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 062 with a grade of 2.0 or higher or placement.

STA 226 - Applied Probability and Statistics (4)
Introduction to probability and statistics as applied to the physical, biological and social sciences and to engineering. Applications of special distributions and nonparametric techniques. Regression analysis and analysis of variance. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Pre/Corequisite(s): MTH 122 with a grade of 2.0 or higher or MTH 154 with a grade of 2.0 or higher.

STA 227 - Introduction to Statistical Methods (4)
Introduction to statistical thinking and applications to industrial and similar processes. Descriptive statistics, distributions, and probability models useful in process control and systems reliability; confidence intervals, hypothesis testing, regression, and basic experimental design. Statistical concepts to be reinforced with case studies promoting problem solving skills and statistical thinking. Mathematics and statistics majors cannot use STA 227 to replace STA 226.
Prerequisite(s): MTH 121 with a grade of 2.0 or higher or MTH 141 with a grade of 2.0 or higher or placement.

STA 228 - Statistical Methods for Biology (4)
Introduction to statistical methods for students in biology and other laboratory sciences. Basic principles of experimental design and data collection. Descriptive statistics, probability models, confidence intervals, hypothesis testing, two- and multi-sample comparisons, regression models, categorical data, nonparametric methods. Mathematics or statistics majors cannot use STA 228 to replace STA 226. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 141 with a grade of 2.0 or higher or placement.

STA 402 - Applied Linear Models I (4)
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. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): STA 226 with a grade of 2.0 or higher, or permission of instructor.

STA 403 - Applied Linear Models II (4)
Multi-way ANOVA, randomized block and Latin square designs, incomplete blocks, factorial and fractional factorial designs, confounding, response surface methods, random and mixed models, introduction to generalized linear models.
Prerequisite(s): STA 402 with a grade of 2.0 or higher, or permission of instructor.

STA 405 - Special Topics (2 or 4)
Advanced study of a selected topic in statistics. May be repeated for additional credit.
Prerequisite(s): permission of instructor.

STA 424 - Analysis of Categorical Data (4)
Analysis techniques for data obtained by counting responses in different categories. Discrete distributions, goodness of fit, contingency tables, association and agreement measures, loglinear and logit models.
Prerequisite(s): STA 402 with a grade of 2.0 or higher, or permission of instructor.

STA 425 - Elements of Stochastic Processes (4)
Random walk models, Markov chains and processes, birth and death processes, queuing processes, diffusion processes and non-Markov processes.
Prerequisite(s): STA 427 with a grade of 2.0 or higher or permission of instructor; APM 255 with a grade of 2.0 or higher (or 257 with a grade of 2.0 or higher) recommended.

STA 426 - Nonparametric Methods (4)
Permutation and rank tests for location and scale, bootstrapping power of competing tests, confidence intervals, nonparametric regression and analysis of variance methods, density estimation.
Pre/Corequisite(s): STA 402 with a grade of 2.0 or higher or STA 427 with a grade of 2.0 or higher or permission of instructor.

STA 427 - Introduction to Mathematical Statistics I (4)
The distribution of random variables, conditional probability and stochastic independence, special distributions, functions of random variables.
Prerequisite(s): STA 226, MTH 254, MTH 275, each with a grade of 2.0 or higher.

STA 428 - Introduction to Mathematical Statistics II (4)
Interval estimation, sufficient statistics and completeness, point estimation, tests of hypothesis and analysis of variance. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): STA 427 with a grade of 2.0 or higher.

STA 490 - Independent Study (2 or 4)
Reading or research on some statistical topic. May be repeated for additional credit.
Prerequisite(s): permission of department.

OPERATIONS RESEARCH

MOR 242 - Elementary Models in Operations Research (4)
Basic techniques in deterministic modeling, Linear, combinatorial, and nonlinear models of real life applications are constructed, solved with optimization software and critically analyzed. Substantial writing component
Prerequisite(s): MTH 155 with a grade of 2.0 or higher.

MOR 330 - Introduction to Operations Research (3)
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. Cross-listed with ISE 330.
Prerequisite(s): MTH 155 with a grade of 2.0 or higher and a 200-level APM/MTH class.

MOR 331 - Mathematical Models in Operations Research (1)
Operations research models of real life applications are constructed, solved with optimization software and critically analyzed. Substantial writing component. To be taken with MOR 330.
Corequisite: MOR 330.

MOR 454 - Linear and Integer Optimization (4)
Topics include linear and integer programming models, simplex method, complementary slackness, duality, sensitivity analysis, interior point methods systems of alternatives and branch-price-cut.
Prerequisite(s): MTH 254 with a grade of 2.0 or higher and MTH 302 with a grade of 2.0 or higher.

MOR 455 - Nonlinear Optimizations (4)
Topics include nonlinear programming, convex programming, unconstrained optimization, first and second order conditions, constrained optimization, KKT conditions, quadratic programming and separable convex programming
Prerequisite(s): MOR 454 with a grade of 2.0 or higher.

MOR 456 - Stochastic Models in Operations Research (4)
Stochastic processes including Markov chains with applications to the development and analysis of queuing models. Further topics drawn from such areas as reliability, decision analysis, stochastic inventory control and simulation. Prerequisite(s): MTH 254 with a grade of 2.0 or higher and MTH 275 with a grade of 2.0 or higher and STA 226 with a grade of 2.0 or higher.

MATHEMATICS FOR ELEMENTARY EDUCATION MAJORS

MTE 210 - Mathematics for Elementary Education I (4)
Mathematical problem solving; logic and sets; whole numbers and operations, number theory, extensions to integers, fractions, decimals, percents, real numbers; proportional reasoning.
Prerequisite(s): MTH 062 with a grade of 2.0 or higher or placement.

MTE 211 - Mathematics for Elementary Education II (4)
Introduction to probability and statistics; concepts from two- and three-dimensional geometry, constructions, geometric reasoning, congruence, similarity, area, volume, isometries, size transformations. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTE 210 with a grade of 2.0 or higher.

MTE 318 - Advanced Topics in Mathematics for Elementary Education (4)
Advanced study of topics in MTE 210-211, with an emphasis on the Common Core Standards of Mathematical Practice.
Prerequisite(s): MTE 211 and MTH 141, each with a grade of 2.0 or higher.

MTE 405 - Special Topics (2 or 4)
Study of mathematical topics particularly relevant for prospective teachers of elementary and middle school mathematics. May be repeated for additional credit.
Prerequisite(s): MTE 211 with a grade of 2.0 or higher or permission of instructor.

MTE 410 - Elementary School Mathematics and the Computer (4)
An introduction to creative uses of computers in teaching mathematics in the elementary school, including program design, machine architecture, and the BASIC and LOGO computing languages. Enrollment is limited to elementary education majors.
Prerequisite(s): MTE 211 and STA 225 with a grade of 2.0 or higher.

Department of Modern Languages and Literatures

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Chairperson: *Jennifer Law-Sullivan*

Distinguished professors emeriti: *Jack R. Moeller, Munibur Rahman, Amitendranath Tagore*

Professors emeriti: *John W. Barthel (German), Dolores Burdick (French), Carlo Coppola (Hindi-Urdu), Renate Gerulaitis (German), Don R. Iodice (French), David Jaymes (French), Barbara Mabee (German), Frances Meuser (Spanish), Estela Moreno-Mazzoli (Spanish), Munibur Rahman (Hindi-Urdu), Robert E. Simmons (German), Amitendranath Tagore (Chinese), Carmen Urla (Spanish)*

Professor: *Christopher Clason, (German)*

Associate professors*: Hsiang-Hua Chang (Chinese), Stephen Filler (Japanese), Stacey L. Hahn (French), Mary Hartson (Spanish), Jennifer Law-Sullivan (French), Seigo Nakao (Japanese), Aldona Bialowas Pobutsky (Spanish), Ronald F. Rapin (Spanish), Maria Cecilia Saenz-Roby (Spanish)*

Assistant professors: *Adolfo Campoy-Cubillo (Spanish), Akiko Kashiwagi-Wood (Japanese), Daniel Lorca (Spanish), Anja Wieden (German)*

Adjunct associate professor: *Malik Balla (Arabic)*

Special instructors*: Dikka Berven (French), Julia Urla (Spanish)*

Special lecturers: *Yukiko Aigbedo (Japanese), Elizabeth Cardozo Anderson (Spanish), Bernadette Donohue (French), Jamila Doppke (French), Fátima Ferreira (Spanish), Tara Gardner (Spanish), Dunya Mikhail (Arabic), Angela Milliken (Spanish), Caterina Pieri (Italian), Michele Plattenberger (Japanese), Maria Ploof (Spanish), José Saenz (Spanish), Cornelia Schaible (German), Mayra Schmalzried (Spanish), Wendy Shyu (Chinese), Emily Stow (French & Spanish), Ulrike Treder (German), Grzegorz Tokarski (Italian), Holly Walker-Cote´ (Spanish)*

Lecturers: *Anna Alexander-Marczewski (German), Maria Alicandro (Spanish), Shubhangi Dabak (German), Tanita Ey (German), Fernanda Galvadon (Spanish), Masako Hirokawa (Japanese), Xue Jiang (Chinese), Nira Lev (Hebrew), Eyda Vaughn (Spanish), Elizabeth Williamson (French)*

Chief adviser: *Ronald F. Rapin*

The Department of Modern Languages and Literatures offers programs leading to the Bachelor of Arts degree. The modern languages curriculum is designed to help students acquire competence in the language of a given country or countries and, through the study of literature and civilization, to acquaint them with the cultural background of the country or countries. It also prepares students for graduate work, teaching and careers in business or government service. The department houses an interactive video, audio and computer language-technology facility, in which students have access to a broad variety of tutorials, exercises and multimedia activities supporting their classroom learning experiences.

Students may wish to investigate the advantages of combining a knowledge of foreign languages and cultures with competence in other fields. Study of a foreign language and culture is an important asset for students with majors such as business, communication, computer science, economics, international management, international studies and journalism. Knowledge of a foreign language also enhances the study of other disciplines,

such as anthropology, art, cinema studies, education, English, health sciences, history, integrative studies, liberal studies, linguistics, music, philosophy, political science, pre-law, religious studies, sociology, theatre and writing and rhetoric.

Placement Examinations

The Department of Modern Languages and Literatures offers language placement testing in Chinese, French, German, Italian and Spanish year round. Students can take the test using a personal computer or at computer labs in Kresge Library or in the Oakland Center or in the language lab. The test in Chinese, French, German, Italian and Spanish can be accessed at webcape.byuhtrsc.org?acct=oakland. Password: grizzlies1.
For placement in the other languages, please contact the department. Students who enter Oakland University with high school work in Arabic, Chinese, French, German, Italian, Japanese or Spanish must take the appropriate placement test. In case of questions concerning proper placement, students should consult with the department advisers, (248) 370-2060.

Admission to Major Standing

To be eligible for a major in one or more foreign languages, a student must be admitted to major standing by the Department of Modern Languages and Literatures. Normally, a student should apply for major standing at the department office after having attained 56 credits and no later than three semesters before graduation. A student planning to graduate with a Bachelor of Arts degree will be admitted to major standing after completion of 8 credits of language or literature at the 300 level with a minimum grade point average of 2.80.

Requirements for the liberal arts major in French language and literatures, B.A. program

A minimum of 36 credits at the 300 and 400 levels in language, culture, and literature, including

- FRH 312 - French Phonetics and Listening Comprehension (2)
- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 370 - Introduction to French Literature (4)
- FRH 380 - Survey of French Literature (4)
- FRH 408 - Advanced French Conversation (2)
- Two 400-level literature courses (8)
- Two electives at the 300-400 level (8)

Requirements for the liberal arts major in German language and literatures, B.A. program

A minimum of 36 credits at the 300 and 400 levels in language, culture, and literature, including

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 381 - Great Works in German Literature (4)
- GRM 408 - Advanced German Conversation (4)
- Two 400-level literature courses (8)
- Two electives at the 300-400 level (8)

Requirements for the liberal arts major in Japanese language and literatures, B.A. program

A minimum of 32 credits at the 300 and 400 levels in language, culture and literature, including

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 355 - Translation: Japanese (4)
- JPN 370 - Introduction to Japanese Literature (4)
- JPN 420 - Japanese Literature - Nineteenth and Twentieth Centuries (4)

and three courses from

- JPN 351 - Japanese Civilization (4)
- JPN 408 - Advanced Japanese Conversation and Reading (4)
- JPN 455 - Advanced Translation from English to Japanese (4)
- JPN 457 - Business Japanese (4)

Requirements for the liberal arts major in Spanish language and literatures, B.A. program

A minimum of 36 credits at the 300 and 400 levels in language, culture, and literature, including

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 370 - Introduction to Spanish Literature (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)
- Two 400-level literature courses (8)
- Two electives at the 300-400 level (8)

In all languages, two corequisite courses are requires, with one history or civilization

In French

- FRH 351 – French Civilization (4)
- LIT 181 – European Literature (4) or LIT 182 – European Literature ll (4)

In German

- GRM 440 – German Culture ll (4)
- LIT 181 – European Literature (4) or LIT 182 – European Literature ll (4)

In Spanish

- SPN 350 - Latin American Civilization (4)
- SPN 351 - Spanish Civilization (4)

plus, one of the following

- LIT 181 - European Literature I (4)
- LIT 182 - European Literature II (4)

In Japanese

- IS 220 – Perspectives on Japan (4)

and one from the following

- IS 300 - Special Topics in International Studies (4) (when the topic is Japan)
- AH 301 - Japanese Art (4)
- HST 370 - Origins of Modern Japan, 1568-1912 (4)
- HST 371 - Twentieth-Century Japan (4)
- CIN 350 - Topics in Film (4) (when the topic is Japanese cinema)
- LIT 100 - Introduction to Asian Literature (4)
- LIT 251 - Studies in Foreign Film (4) (when the topic is Japanese cinema)
- LIT 375 - Topics in Foreign Literature (4) (when the topic is Japanese literature)

Additional information

Students planning graduate work are strongly urged to study a second foreign language recommended by the department. At least 16 credits of those required for the major in any of the languages must be taken at Oakland University.

Requirements for the liberal arts major in two modern languages, B.A. program

The requirement is a minimum of 18 credits (20 credits in German and Spanish) at the 300 and 400 levels in each of two languages. In French, German, Japanese, and Spanish, courses numbered 314, 316, 318, 355, 408 and 455 are required.

Three collateral courses are required: LIN 201 and two courses in history or civilization, one in each language area, to be approved by the student's department adviser. LIT 181 and LIT 182 are recommended. When one of the languages is Japanese, LIT 100 with LIT 181 or LIT 182 are recommended. Students are strongly advised to complete a minor in a complementary field.

Most traditional graduate programs in language and literature will require students in this major to fulfill additional prerequisites in literature. At least 16 credits of those required for the major in two modern languages must be taken at Oakland University.

Requirements for the modified liberal arts major in German with a concentration in German studies, B.A. program

Students must complete a minimum of 28 credits in German beyond the second year and 24 credits in corequisite courses.

The German courses required are

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 340 - German Culture I (4)
- GRM 355 - Translation: German (4)
- GRM 371 - Introduction to the Study of German Literature (4) or GRM 381 - Great Works in German Literature (4)
- GRM 408 - Advanced German Conversation (4)
- GRM 440 - German Culture II (4)

Corequisite courses include

- AH 345 - German Art (4)
- LIT 181 - European Literature I (4) or LIT 182 - European Literature II (4)
- MUS 100 - An Introduction to Music (4)

- PS 373 - Western Political Thought II (4)

Plus two from among the following

- AH 334 - Renaissance Art in Northern Europe (4)
- HST 327 - The Reformation (4)
- HST 341 - Europe since 1914 (4)
- HST 343 - Germany since 1740 (4)

Note

At least 16 credits of those required for the major must be taken at Oakland University.

Secondary Teacher Education Program (STEP): Modern Languages and Literatures, K-12

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Students in this program must complete the requirements for a B.A. degree in the College of Arts and Sciences. The department offers the following liberal arts majors as part of the secondary teacher education program: French, German, Japanese and Spanish. Generally, eligibility for admission to the STEP requires a GPA of 3.00 in both the major and minor, and an overall GPA of 2.80. No single major or minor course grade may be below 2.0.

An Oral Proficiency Interview (OPI) score of advanced-low (intermediate-high for Japanese) is also required. After September 1, 2017, an official ACTFL OPI rating will be required. Second undergraduate degree candidates completing major and/or minors may be required to complete additional course work at Oakland University beyond the stated minimums.

A program in STEP must also include a sequence of undergraduate course work in education to include

- SED 300 - Introduction to Secondary Education (1 TO 4) (must be completed prior to STEP application)
- DLL 397 - Digital Technologies in the Secondary Classroom (4) (must be completed prior to the final internship semester)
- RDG 338 - Teaching Reading in the Content Areas (4) (must be completed prior to the final internship semester)
- FE 406 - Educational Psychology for K-12 Educators (4) (must be completed prior to the final internship semester)
- EED 420 - Managing the Classroom Community for U.S. Diverse Learners (4)
- SED 427 - ST: Teaching Secondary in the Minor Methods (3 OR 4) (must be completed prior to the final internship semester)
- SE 401 - Introduction to Students with Special Needs (4)

Also required

- EED 428 - Foreign Language Teaching Methods in Elementary and Middle School (3)
- SED 428 - ST: Teaching Secondary of the Major Methods (3)
- SED 455 - Internship in Secondary Education 12)

Additional Information

Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the Department of Modern Languages and Literatures and the School of Education and Human Services advising office, 363 Pawley Hall, (248) 370-4182.

Requirements for the modified liberal arts major in a modern language with majors or minors in economics, business, international management, engineering, computer science or computing, B.A. program

Modified majors are available in French, German, Japanese and Spanish with majors or minors in economics, general business, international management, engineering, and computer science or computing. (Students with majors or minors in one of the other professional schools may petition the department for a modified major.) The requirement in French, Japanese or Spanish is a minimum of 24 credits at the 300-400 level; in German it is 28 credits. Students should note the credit hour restriction for the minors in economics or business. At least 16 credits of those required for the modified liberal arts major in a modern language must be taken at Oakland University.

Requirements for the liberal arts major in Latin American language and civilization, B.A. program

1. A minimum of 28 credits in Spanish language and literature courses including

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 350 - Latin American Civilization (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)
- SPN 488 - Spanish-American Literature before 1888 (4) or SPN 489 - Spanish-American Literature after 1888 (4)
- 4 elective credits at the 300-400 level (4)

2. A minimum of 12 credits in Latin American studies courses

These courses should be chosen in consultation with the faculty adviser.

Note

At least 16 credits of the Spanish courses required for the major in Latin American language and civilization must be taken at Oakland University.

Departmental Honors and Scholarships

Departmental honors may be awarded to graduating majors for outstanding achievements. In order to be eligible, students must submit for faculty review a writing project, usually either a research paper or a translation of superior quality, completed in a 400-level course. In addition, students must maintain a grade point average in major courses of at least 3.60 and have taken at least 16 credits of the major at Oakland University. Qualified students who wish to be nominated should contact a full-time faculty member in their major at the start of the semester in which they will graduate.

There are two scholarships specifically for majors in the department. The Don R. Iodice Grant-in-Aid for Foreign Travel is available for majors who will return to Oakland University for a minimum of two full semesters. The Carmine Rocco Linsalata Memorial Scholarship offers one stipend to an incoming student who intends to major in a foreign language and another to a major with a minimum of 28 credits. The Jack Moeller Gift Fund offers stipends to German majors for study at Oldenburg and for study in German courses at Oakland University. The Betty and Kiichi Usui Scholarship is available to students who have declared a major or minor in Chinese or Japanese. The department also offers the Holzbock Humanities Scholarship. For information, see www.oakland.edu/scholarships.

Study Abroad

Students are encouraged to take advantage of opportunities to study abroad. Students should consult departmental advisers for information on a variety of foreign study opportunities. Students wishing to transfer credits from study abroad programs must arrange for that prior to their departure. Chinese language students interested in studying abroad should contact Professor Hsiang-Hua Chang.

Students majoring or minoring in French wishing to participate in the exchange program with the University of Orléans in France should contact Professor Stacey Hahn. Students majoring or minoring in German wishing to participate in the exchange program with the University of Oldenburg in Germany should contact Professor Christopher Clason. Students may also participate in the Junior Year in Munich Program with Wayne State University.

Japanese language students interested in studying in Japan should contact Professor Seigo Nakao.

Students majoring in Spanish may participate in Study Abroad Programs in Spain and Mexico, administered by the Director of International Education, 160E North Foundation Hall. For further information on these programs, and on other study abroad opportunities, see the International Studies Program section of the catalog.

Translation Program

Students qualify for a translation certificate by completing language courses numbered 355, 455 and 491. A 491 course does not apply toward the major.

Requirements for the liberal arts minor in a modern language and literature

A student planning a minor in the department must apply in the department office, 372 O'Dowd Hall, after consultation with an adviser in the Department of Modern Languages and Literatures.

A minimum of 20 credits at the 200-level and above, including

French

- FRH 370 - Introduction to French Literature (4)
- FRH 380 - Survey of French Literature (4)

German

- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 381 - Great Works in German Literature (4)

Japanese

- JPN 370 - Introduction to Japanese Literature (4)
- JPN 420 - Japanese Literature - Nineteenth and Twentieth Centuries (4)

Spanish

- SPN 370 - Introduction to Spanish Literature (4)
- SPN 380 - Introduction to Spanish-American Literature (4)

Note

At least 12 credits of those required for the minor in any of the languages must be taken at Oakland University.

Requirements for the liberal arts minor in a modern language

A student planning a minor in the department must apply in the department office, 372 O'Dowd Hall, after consultation with an adviser in the Department of Modern Languages and Literatures.

The requirement is a minimum of 20 credits at the 200 level and above.

Chinese

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)

And one of the following courses

- CHE 351 - Chinese Civilization (4)
- CHE 355 - Translation: Chinese (4)
- CHE 357 - Chinese Business Communication (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)

At least 12 credits of those required for the minor in any of the languages must be taken at Oakland University.

French

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)

and one of the following

- FRH 351 - French Civilization (4)
- FRH 355 - Translation into English (4)
- FRH 357 - French Business Communication (4)
- FRH 408 - Advanced French Conversation (2)
- FRH 455 - Translation into French (4)

German

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)

And one of the following courses

- GRM 340 - German Culture I (4)
- GRM 355 - Translation: German (4)
- GRM 408 - Advanced German Conversation (4)
- GRM 455 - Translation into German (4)
- GRM 457 - Business German (4)

Japanese

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)

And one of the following courses

- JPN 351 - Japanese Civilization (4)
- JPN 355 - Translation: Japanese (4)
- JPN 408 - Advanced Japanese Conversation and Reading (4)
- JPN 455 - Advanced Translation from English to Japanese (4)
- JPN 457 - Business Japanese (4)

Spanish

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)

And one of the following courses

- SPN 350 - Latin American Civilization (4)
- SPN 351 - Spanish Civilization (4)
- SPN 355 - Translation: Spanish into English (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)
- SPN 455 - Translation: English into Spanish (4)
- SPN 457 - Business Spanish (4)

Note

At least 12 credits of those required for the minor in any of the languages must be taken at Oakland University.

Requirements for the liberal arts minor in Chinese language and civilization

Students must complete 20 credits, including

- CHE 214 - Second Year Chinese I (4)
- CHE 215 - Second Year Chinese II (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)
- CHE 351 - Chinese Civilization (4) *
- CHE 355 - Translation: Chinese (4)

*The following can qualify as an alternative to CHE 351

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 357 - Chinese Business Communication (4)
- CHE 390 - Directed Readings in Chinese (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)

Required corequisite course

- IS 210 - Perspectives on China (4)

Note

At least 12 credits of those required for the minor in Chinese language and civilization must be taken at Oakland University.

Requirements for the liberal arts minor in German studies

Students must complete a minimum of 24 credits as follows:

The courses required include

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 340 - German Culture I (4)
- GRM 408 - Advanced German Conversation (4)
- GRM 440 - German Culture II (4)
- LIT 181 - European Literature I (4) or LIT 182 - European Literature II (4)

Note
At least 12 credits of those required for the minor in German Studies must be taken at Oakland University.

Requirements for the liberal arts minor in Japanese language and civilization

Students must complete 20 credits at the 200 level and above, including

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)

Corequisite course

- IS 220 - Perspectives on Japan (4) (required in addition to the 20 credits in Japanese)

Note
At least 12 credits of those required for the minor in Japanese language and civilization must be taken at Oakland University.

French Studies Concentration

Coordinator: *Stacey Hahn (French)*

The concentration in French studies provides an interdisciplinary understanding of French culture for students not majoring in French. Courses in French language, literature, civilization, art history and history are required.

In addition to providing students with a well-rounded background in the area of French studies, this concentration is also useful to students planning graduate work in French history or art history.
The concentration offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

The concentration requires completion of a minimum of 28 credits, including 8 credits in French language and 20 credits in courses conducted in English as follows:

1. Eight credits of French language taken at Oakland University

Students must achieve minimally at the 215 level. Students who place into FRH 215 will take FRH 215 and FRH 314; if they place higher than FRH 215, they will take FRH 314 plus 4 credits in a higher level course.

2. Eight credits from the following courses

- LIT 181 - European Literature I (4)
- LIT 182 - European Literature II (4)
- LIT 251 - Studies in Foreign Film (4)
- ML 390 - Advanced Study of Topics Related to Foreign Languages and Cultures (2 OR 4)
- LIT 375 - Topics in Foreign Literature (4) when available
- The courses listed above are conducted in English.

3. Eight credits from the following history courses

- HST 329 - Europe in the Seventeenth Century (4)
- HST 348 - Europe in the Eighteenth Century (4)
- HST 349 - Early Modern France (4)
- Other topic courses in history may be substituted with permission of the concentration coordinator.

4. Four credits in art and art history selected from

- AH 326 - Gothic Art (4)
- AH 360 - Nineteenth-Century Art (4)
- AH 361 - Modern Art 1900-1960 (4)
- Other topic courses in art history may be substutited with permission of the concentration coordinator.

5. Corequisite course selected from the following

- HST 101 - Introduction to European History Before 1715 (4)
- HST 102 - Introduction to European History Since 1715 (4)
- Either course satisfies the general education requirement in the western civilization knowledge exploration area.

Additional information

This concentration does not constitute a major. Students must elect a major from those offered by the university. Interested students should develop a program in consultation with the coordinator.

Requirements for an elementary teaching minor in a modern language

The requirements for an elementary teaching minor in a modern language is a minimum of 20 credits in one language.

Chinese requires

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)
- CHE 351 - Chinese Civilization (4)
- CHE 355 - Translation: Chinese (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)
- 4 credits elective at 300-400 level

French requires

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)

- 4 credits elective at the 300-400 level

German requires

- GRM 314 – Adv. GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 440 - German Culture II (4)
- 4 credits elective at the 300-400 level

Japanese requires

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- 4 credits elective at the 300-400 level

Spanish requires

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)
- 4 credits elective at the 300-400 level

Note

At least 12 credits of those required for the elementary teaching minor in a modern language must be taken at Oakland University.

Additional Information

An Oral Proficiency Interview (OPI) score of advanced-low (intermediate-high for Japanese and Chinese) and EED 428, Methods of Teaching Foreign Language are required. After September 1, 2017, an official ACTFL OPPI rating will be required. Students must consult with the appropriate advisor for teaching majors and minors in the department. For complete details on other requirements, including courses in education, consult the Department of Teacher Development and Educational Studies section in the School of Education and Human Services portion of this catalog.

Requirements for the secondary teaching minor in a modern language

The requirement for a secondary teaching minor in a modern language is a minimum of 20 credits in one language.

Chinese requires

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)
- CHE 351 - Chinese Civilization (4)
- CHE 355 - Translation: Chinese (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)

French requires

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- Four elective credits at the 300-400 level

German requires

- GRM 314 – Adv. GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 440 - German Culture II (4)
- Four elective credits at the 300-400 level

Japanese requires

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- Four elective credits at the 300-400 level

Spanish requires

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)

Note

At least 12 credits of those required for the secondary teaching minor in a modern language must be taken at Oakland University.

Additional Information

An Oral Proficiency Interview (OPI) score of advanced-low (intermediate-high for Japanese and Chinese) and SED 427, Methods of Teaching Foreign Language are required. After September 1, 2017, an official ACTFL OPPI rating will be required. Students must consult with the appropriate advisor for teaching majors and minors in the department. For complete details on other requirements, including courses in education, consult the Department of Teacher Development and Educational Studies section in the School of Education and Human Services portion of this catalog.

Requirements for an elementary teaching major in a modern language

The requirement for an elementary teaching major in a modern language is a minimum of 32 credits.

French requires

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- FRH 380 - Survey of French Literature (4)
- 12 elective credits at the 300-400 level

German requires

- GRM 314 – Adv. GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 381 - Great Works in German Literature (4)
- GRM 440 - German Culture II (4)
- 12 elective credits at the 300-400 level

Japanese requires

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- JPN 408 - Advanced Japanese Conversation and Reading (4)
- IS 220 - Perspectives on Japan (4)
- 8 elective credits at the 300-400 level

Spanish requires

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 350 - Latin American Civilization (4)
- SPN 351 - Spanish Civilization (4)
- SPN 370 - Introduction to Spanish Literature (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- SPN 408 - Advanced Spanish Conversation and Composition (4)
- 4 elective credits at the 300-400 level

Note

At least 16 credits of those required for the elementary teaching major in a modern language must be taken at Oakland University.

Additional information

In addition, an Oral Proficiency Interview (OPI) score of advanced-low (intermediate-high for Japanese and Chinese) and EED 428, Methods of Teaching Foreign Language are required. After September 1, 2017, an official ACTFL OPPI rating will be required. Students must consult with the appropriate advisor for teaching majors and minors in the department. For complete details on other requirements, including courses in education, consult the Department of Teacher Development and Educational Studies section in the School of Education and Human Services portion of this catalog.

Requirements for the certificate in teaching English as a second language

Students may earn a certificate in teaching English as a second language (TESL) by completing the courses listed below. In all cases a student must complete 12 credits in linguistics courses at OU and must satisfy the Practicum Eligibility requirement to obtain the certificate. Students interested in this certificate should contact an adviser in the Department of Linguistics.

- LIN 201 - Introduction to Linguistics (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

ARABIC LANGUAGE

ARB 114 - Introduction to Arabic Language and Culture I (4)
A two-semester sequence in the fundamentals of Arabic and Arabic culture. A beginning course, ARB 114, must be taken first. ARB 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

ARB 115 - Introduction to Arabic Language and Culture II (4)
A two-semester sequence in the fundamentals of Arabic and Arabic culture. A beginning course, ARB 114, must be taken first. ARB 114 or ARB 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

ARB 214 - Second Year Arabic I (4)
Two-semester sequence continuing the work of ARB 114-115, with the addition of cultural and literary readings. ARB 214 must be taken first. ARB 214 or ARB 215 satisfies the university general education requirement in the foreign language and cultural knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Arabic or equivalent.

ARB 215 - Second Year Arabic II (4)
Two-semester sequence continuing the work of ARB 114-115, with the addition of cultural and literary readings. ARB 214 must be taken first. ARB 214 or ARB 215 satisfies the university general education requirement in the foreign language and cultural knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Arabic or equivalent.

ARB 316 - Arabic Conversation (2)
Practice in speaking at the intermediate level. Format may include oral presentation and phonetics. Must be taken concurrently with ARB 318.
Prerequisite(s): ARB 215 or equivalent.

ARB 318 - Arabic Composition (2)
Practice in written composition using formal literary Arabic. Techniques of textual analysis and exposition are introduced. Must be taken concurrently with ARB 316.
Prerequisite(s): ARB 215 or equivalent.

ARB 351 - Arabic Civilization (4)
Survey of Arabic culture and civilization from topical, literary, and historic perspectives. Conducted in Arabic and English.
Prerequisite(s): ARB 215.

ARB 370 - Arabic Literature (4)
Introduction to Arabic literature with a focus on influences, major trends, themes, and genres. Will provide a foundational knowledge of literature in the Arabic language. Conducted in Arabic and English.
Prerequisite(s): ARB 215.

ARB 390 - Directed Readings in Arabic (2 or 4)
Directed individual readings in Arabic. May be repeated for a total of 8 credits.
Prerequisite(s): permission of instructor.

CHINESE LANGUAGE

CHE 114 - Introduction to Chinese Language and Culture I (4)
A two-semester sequence in the fundamentals of modern Mandarin Chinese and Chinese culture. A beginning course. CHE 114 must be taken first. CHE 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

CHE 115 - Introduction to Chinese Language and Culture II (4)
A two-semester sequence in the fundamentals of modern Mandarin Chinese and Chinese culture. A beginning course, CHE 114, must be taken first. CHE 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

CHE 214 - Second Year Chinese I (4)
A two-semester sequence continuing the work of CHE 114-115, with the addition of cultural and literary readings. CHE 214 must be taken first. CHE 214 or 215 satisfies the university general education requirement in the foreign language and cultural knowledge exploration area or the
knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite: one year of college Chinese or equivalent.

CHE 215 - Second Year Chinese II (4)
A two-semester sequence continuing the work of CHE 114-115, with the addition of cultural and literary readings. CHE 214 must be taken first. CHE 214 or 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Chinese or equivalent.

CHE 314 - Advanced Chinese Grammar (4)
Review and survey of Chinese grammar and expressions through a variety of approaches, such as reading, translation and composition. Conducted in Chinese.
Prerequisite(s): CHE 215 or equivalent.

CHE 316 - Chinese Conversation (2)
Practice in speaking at intermediate level. Format may include oral presentation and phonetics. Must be taken concurrently with CHE 318.
Prerequisite(s): CHE 215 or equivalent.

CHE 318 - Chinese Composition (2)
Practice in written composition. Techniques of textual analysis and exposition are introduced. Must be taken concurrently with CHE 316.
Prerequisite(s): CHE 215 or equivalent.

CHE 351 - Chinese Civilization (4)
Survey of Chinese culture and civilization from topical, literary and historical perspectives. Conducted in Chinese and English.
Prerequisite(s): CHE 215 or equivalent.

CHE 355 - Translation: Chinese (4)
Translation from Chinese to English of a range of materials from commercial and technical to literary.
Prerequisite(s): CHE 215 or equivalent.

CHE 357 - Chinese Business Communication (4)
Introduction to the essential vocabulary and style specific to Chinese business as well as to China's business environment and the basic workings of its economy.
Prerequisite(s): CHE 215 or equivalent.

CHE 390 - Directed Readings in Chinese (2 or 4)
Directed individual readings in Chinese. May be repeated.
Prerequisite: permission of instructor.

CHE 408 - Advanced Chinese Conversation and Reading (4)
Development of advanced conversational and reading skills. Format will include oral presentations as well as literary and other readings.
Prerequisite(s): CHE 316 or permission of instructor.

FRENCH LANGUAGE AND LITERATURE

FRH 114 - Introduction to French Language and Culture I (4)
A two-semester sequence in the fundamentals of French and French culture. A beginning course. FRH 114 must be taken first. FRH 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

FRH 115 - Introduction to French Language and Culture II (4)
A two-semester sequence in the fundamentals of French and French culture. A beginning course, FRH 114, must be taken first. FRH 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

FRH 119 - Accelerated Review of Elementary French and French Culture (4)
One-semester course designed to review the fundamentals of French and French culture. Designed for students who have three or more years of previous French experience. Covers the same materials as the two-semester sequence French 114-115. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

FRH 214 - Second Year French I (4)
Two-semester sequence continuing the work of FRH 114-115 with the addition of cultural and literary readings. FRH 214 must be taken first. FRH 214 or FRH 215 satisfies the university general education requirement in the foreign language and cultural knowledge exploration area or the knowledge application integration area, not both. Prerequisite for knowledge application integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college French or equivalent.

FRH 215 - Second Year French II (4)
Two-semester sequence continuing the work of FRH 114-115 with the addition of cultural and literary readings. FRH 214 must be taken first. FRH 214 or FRH 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge application integration area, not both. Prerequisite for knowledge application integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): One year of college French or equivalent.

FRH 216 - Basic French Conversation (2)
Designed to develop the student's ability to organize and express ideas in French with a minimum of inhibition.
Prerequisite(s): FRH 115.

FRH 290 - Directed Readings in French (2 or 4)
A reading course for non-majors in research in a particular area. Approximately 50 hours of reading per credit. One conference weekly with the instructor.
Prerequisite(s): FRH 215.

FRH 312 - French Phonetics and Listening Comprehension (2)
Group and individual practice in the sound system of French, with special attention to listening comprehension problems. Both written and laboratory work required. Offered fall semester.
Prerequisite(s): FRH 215.

FRH 314 - French Grammar Review (4)
Review of French grammar through a variety of approaches such as reading, translation and composition. Conducted in French.
Prerequisite(s): FRH 215.

FRH 316 - French Conversation (2)
Practice in speaking at intermediate level. Format may include oral presentations and phonetics. Offered winter semester.
Prerequisite(s): FRH 215.

FRH 318 - French Composition (2)
Practice in written composition. Techniques of textual analysis and exposition are introduced. Offered fall semester. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): FRH 215. FRH 314 highly recommended.

FRH 351 - French Civilization (4)
An overview of contemporary life, education and socio-economic conditions in France. Conducted in French. Offered in fall semester.
Prerequisite(s): FRH 215.

FRH 355 - Translation into English (4)
Translation from French to English of materials that may range from commercial and technical to literary. Offered winter semester.
Prerequisite(s): FRH 314.

FRH 357 - French Business Communication (4)
Introduction to basic business communication skills, including essential reading, writing and speaking activities. Offered in alternate years.
Prerequisite(s): FRH 314.

FRH 369 - Field Experience in Teaching French in Elementary and Middle Schools (2 or 4)
Provides supervised experience in teaching French in elementary and middle schools. Graded S/U. May be repeated for credit once. Does not carry credit toward departmental major.
Prerequisite(s): FRH 314.

FRH 370 - Introduction to French Literature (4)
An introduction to textual analysis based on selected readings. Conducted in French. Offered fall semester.
Prerequisite(s): FRH 215, FRH 314 is highly recommended.

FRH 380 - Survey of French Literature (4)
A survey of French literature. Intended to supplement the work of FRH 370. Conducted in French. Offered winter semester.
Prerequisite(s): FRH 370.

FRH 390 - Directed Readings in French (2 or 4)
Directed individual readings in French. May be repeated.
Prerequisite(s): permission of instructor.

FRH 408 - Advanced French Conversation (2)
Practice in speaking at an advanced level. Format may include oral presentations and readings.
Prerequisite(s): FRH 316.

FRH 416 - French Literature from the Middle Ages through the Sixteenth Century (4)
A study of works in various genres of several periods. Works and authors may include epics, bawdy tales, courtly romances, Villon, Rabelais and Montaigne. Conducted in French. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): FRH 314, 370 and 380.

FRH 417 - French Literature - Seventeenth and Eighteenth Centuries (4)
A study of works in various genres by leading French authors such as Pascal, Corneille, Racine, Moliere, La Fontaine, Montesquieu, Diderot, Rousseau and Voltaire. Conducted in French. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): FRH 314, 370 and 380.

FRH 419 - French Literature - Nineteenth Century (4)
A study of works in various genres by leading French authors such as Stendhal, Balzac, Hugo, Nerval, Flaubert, Zola, Baudelaire and Mallarme. Conducted in French. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): FRH 314, 370 and 380.

FRH 420 - French Literature - Twentieth Century (4)
Study of contemporary genres demonstrating different approaches to study of works in various genres by leading French and francophone authors from 1900 to the present. May include works by Gide, Proust, Sartre, Beauvoir, Duras, Ionesco, Valery, Conde, Djebar, among others. Conducted in French. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): FRH 314, 370 and 380.

FRH 455 - Translation into French (4)
Translation from English into French of a wide variety of materials that may range from commercial and technical to literary. Offered fall semester in alternate years.
Prerequisite(s): FRH 314, 316, and 318.

FRH 480 - Undergraduate Seminar (2 or 4)
Study of individual authors, selected themes or critical problems. Conducted in French. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite: completion of the university writing foundation requirement.
Prerequisite(s): FRH 314, 370 and 380.

FRH 490 - Independent Reading and Research (2 to 8)
Directed individual research and reading for advanced French majors. May be repeated.
Prerequisite(s): two 400-level French literature courses and permission of department.

FRH 491 - Independent Translation Project (4 to 8)
Directed annotated translation from French into English of a major work in the student's field. May not be counted toward the major.
Prerequisite(s): FRH 355 and 455 and permission of department.

GERMAN LANGUAGE AND LITERATURE

GRM 114 - Introduction to German Language and Culture I (4)
A two-semester sequence in the fundamentals of German and German culture. A beginning course. GRM 114 must be taken first. GRM 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

GRM 115 - Introduction to German Language and Culture II (4)
A two-semester sequence in the fundamentals of German and German culture. A beginning course. GRM 114 must be taken first. GRM 114 or 115 satisfies the university general education requirement in the foreign language and cultural knowledge exploration area.

GRM 214 - Second Year German I (4)
A two-semester sequence continuing the work of GRM 114-115, with the addition of cultural and literary readings. GRM 214 must be taken first. GRM 214 or GRM 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge application integration area, not both. Prerequisite for knowledge application integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college German or equivalent.

GRM 215 - Second Year German II (4)
A two-semester sequence continuing the work of GRM 114-115, with the addition of cultural and literary readings. GRM 214 must be taken first. GRM 214 or GRM 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge application integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college German or equivalent.

GRM 290 - Directed Readings in German (2 or 4)
A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor.
Prerequisite(s): GRM 215.

GRM 300 - Germany Exchange: Oldenburg I (4 to 18)
Course work is taken at the University of Oldenburg in Germany and includes German Language study and additional appropriate course work with German as the language of instruction.
Prerequisite(s): permission of program coordinator.

GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
Review and refinement of German grammatical and literary skills with an emphasis on the development of cultural understandings. Offered fall semester.
Prerequisite(s): GRM 215 or equivalent.

GRM 316 - German Conversation (2)
Provides a transition between the carefully structured activities of other intermediate courses and free manipulation of the spoken language. Must be taken concurrently with GRM 318. Offered winter semester.
Prerequisite(s): GRM 314 or equivalent.

GRM 318 - German Composition (2)
Practice in written composition. Techniques of textual analysis and exposition are introduced. Must be taken concurrently with GRM 316. Offered winter semester. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): GRM 314 or equivalent.

GRM 340 - German Culture I (4)
German culture of the twentieth century, with emphasis on the period since World War II and particularly the present. Conducted in German. Offered fall semester in alternate years.
Prerequisite(s): GRM 314 or equivalent.

GRM 355 - Translation: German (4)
Translation from German to English of a range of materials from commercial and technical to literary, with an emphasis on idiomatic English. Offered fall semester.
Prerequisite(s): GRM 316 and 318.

GRM 369 - Field Experience in Teaching German in Elementary and Middle Schools (2 or 4)
Provides supervised experience in teaching German in elementary and middle schools. Graded S/U. May be repeated for credit once. Does not carry credit toward departmental major.
Prerequisite(s): GRM 314 or equivalent.

GRM 371 - Introduction to the Study of German Literature (4)
Introduction to literary genres and critical approaches, using selected works of German literature. Conducted in German.
Prerequisite(s): GRM 215.

GRM 381 - Great Works in German Literature (4)
An historical survey. Conducted in German.
Prerequisite(s): GRM 215.

GRM 390 - Directed Readings in German (2 or 4)
Directed individual readings in German. May be repeated.
Prerequisite(s): permission of instructor.

GRM 400 - Germany Exchange: Oldenburg II (4 to 18)
Course work is taken at the University of Oldenburg in Germany and includes German language study and additional appropriate course work with German as the language of instruction
Prerequisite(s): permission of program coordinator.

GRM 408 - Advanced German Conversation (4)
Practice in speaking at the advanced level. Format may include oral presentations and readings.
Prerequisite(s): GRM 316 or permission of instructor.

GRM 413 - German Literature from the Middle Ages through the Seventeenth Century (4)
A study of works in all genres by leading authors of the period including Walter von der Vogelweide, Wolfram von Eschenbach, Gottfried von Strassburg and Grimmelshausen. Conducted in German. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): GRM 371 and 381.

GRM 418 - German Literature - Eighteenth Century (4)
A study of representative works of Lessing, Goethe and Schiller, which exemplify the intellectual and artistic currents of this period. Conducted in German. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): GRM 371 and 381.

GRM 419 - German Literature - Nineteenth Century (4)
A study of works in all genres by leading authors of the period with emphasis on the lyric poetry of Romanticism, the dramas of Kleist, Grillparzer and Hebbel, and the novella of Poetic Realism. Conducted in German. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): GRM 371 and 381.

GRM 420 - German Literature - Twentieth Century (4)
A study of works and movements in various genres from Naturalism to the present by authors such as Schnitzler, Toller, Brecht, Mann, Boll, Wolf, Celan and Kirsch. Conducted in German. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): GRM 371 and 381.

GRM 440 - German Culture II (4)
Culture in history before 1900. The course covers the principal characteristics of culture and civilization generally regarded as important by German-speaking people themselves. Conducted in German. Offered winter semester in alternate years.
Prerequisite(s): GRM 340 or reading ability at the fourth-year level.

GRM 455 - Translation Into German (4)
Translation from English into German of a wide variety of materials ranging from commercial and technical to literary. Individual students may emphasize areas of interest. Offered winter semester in alternate years.
Prerequisite(s): GRM 318 and 355.

GRM 457 - Business German (4)
Introduction to the essential vocabulary and style specific to German business as well as to the basic workings of the German economy. All language skills receive equal emphasis.
Prerequisite(s): GRM 316 and 318.

GRM 480 - Undergraduate Seminar (2 or 4)
Study of individual authors, selected themes or critical problems. Conducted in German. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): GRM 371 and 381.

GRM 490 - Independent Reading and Research (2 to 8)
Directed individual research and reading for advanced German majors. May be repeated.
Prerequisite(s): two 400-level German literature courses and permission of department.

GRM 491 - Independent Translation Project (4 to 8)
Directed annotated translation from German into English of a major work in the student's field. May not be counted toward the major.
Prerequisite(s): GRM 355 and 455 and permission of department.

HEBREW LANGUAGE AND LITERATURE

HBR 114 - Introduction to Hebrew Language and Culture I (4)
A two-semester sequence in the fundamentals of Hebrew and Israeli culture. A beginning course. HBR 114 must be taken first. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

HBR 115 - Introduction to Hebrew Language and Culture II (4)
A two-semester sequence in the fundamentals of Hebrew and Israeli culture. HBR 114 must be taken first. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

HBR 214 - Second Year Hebrew I (4)
A two-semester sequence continuing the work of HBR 114-115, with the addition of cultural and literary readings. Conducted in Hebrew. HBR 214 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Hebrew or equivalent.

HBR 215 - Second Year Hebrew II (4)
A two-semester sequence continuing the work of HBR 114-115, with the addition of cultural and literary readings. Conducted in Hebrew. HBR 214 must be taken first. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Hebrew or equivalent.

ITALIAN LANGUAGE AND LITERATURE

IT 114 - Introduction to Italian Language and Culture I (4)
A two-semester sequence of the fundamentals of Italian and Italian culture. A beginning course. IT 114 must be taken first. IT 114 or 115 satisfies the university general education requirement in foreign language and culture knowledge exploration area.

IT 115 - Introduction to Italian Language and Culture II (4)
A two-semester sequence of the fundamentals of Italian and Italian culture. A beginning course. IT 114 must be taken first. IT 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

IT 214 - Second Year Italian I (4)
A two-semester sequence continuing the work of IT 114-115 with the addition of cultural and literary readings. IT 214 must be taken first. IT 214 or 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Italian or equivalent.

IT 215 - Second Year Italian II (4)
A two-semester sequence continuing the work of IT 114-115 with the addition of cultural and literary readings. IT 214 must be taken first. IT 214 must be taken first. IT 214 or 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Italian or equivalent.

IT 390 - Directed Readings in Italian (2 or 4)
Directed individual readings in Italian. May be repeated. Prerequisite(a): permission of instructor.

JAPANESE LANGUAGE AND LITERATURE

JPN 114 - Introduction to Japanese Language and Culture I (4)
A two-semester sequence in the fundamentals of Japanese and Japanese culture. A beginning course. JPN 114 must be taken first. JPN 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

JPN 115 - Introduction to Japanese Language and Culture II (4)
A two-semester sequence in the fundamentals of Japanese and Japanese culture. A beginning course. JPN 114 must be taken first. JPN 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

JPN 214 - Second Year Japanese I (4)
A two-semester sequence continuing the work of JPN 114-115, with the addition of cultural and literary readings. JPN 214 must be taken first. JPN 214 or 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Japanese or equivalent.

JPN 215 - Second Year Japanese II (4)
A two-semester sequence continuing the work of JPN 114-115, with the addition of cultural and literary readings. JPN 214 must be taken first. JPN 214 or 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge applications integration area, not both. Prerequisite for knowledge applications integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Japanese or equivalent.

JPN 314 - Advanced Japanese Grammar (4)
Review of advanced Japanese grammar and expressions through such methods as translation, reading, and composition.
Prerequisite(s): JPN 215 or equivalent.

JPN 315 - Advanced Japanese Texts and Contexts (4)
Refinement of Japanese grammatical, reading and conversational skills with an emphasis on the development of cultural understanding.
Prerequisite(s): JPN 314.

JPN 316 - Japanese Conversation (2)
Practice in speaking at intermediate level. Format may include oral presentations and phonetics. Must be taken concurrently with JPN 318.
Prerequisite(s): JPN 215.

JPN 318 - Japanese Composition (2)
Practice in written composition. Techniques of textual analysis and exposition are introduced. Must be taken concurrently with JPN 316. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): JPN 215.

JPN 351 - Japanese Civilization (4)
Survey of Japanese culture and civilization from topical and historical perspectives. Diverse materials include newspaper articles, films and critical writings. Conducted both in English and Japanese.
Prerequisite(s): JPN 355.

JPN 355 - Translation: Japanese (4)
Translation from Japanese to English of a range of materials from commercial and technical to literary.
Prerequisite(s): JPN 215 or equivalent.

JPN 370 - Introduction to Japanese Literature (4)
Critical approach to selected readings of classical and modern Japanese folklore, tales, fiction, poetry, and drama. Conducted both in English and Japanese. Offered in the fall semester.
Prerequisite(s): JPN 215. JPN 314 strongly recommended.

JPN 390 - Directed Readings in Japanese (2 or 4)
Directed individual readings in Japanese. May be repeated.
Prerequisite(s): permission of instructor.

JPN 408 - Advanced Japanese Conversation and Reading (4)
Practice in speaking at an advanced level in recent historical, social, business and cultural topics featured in newspapers, internet articles, magazines, books, TV programs and films.
Prerequisite(s): JPN 316, JPN 318, JPN 355.

JPN 420 - Japanese Literature - Nineteenth and Twentieth Centuries (4)
Reading texts of various literary genres. Conducted in Japanese. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): JPN 314, JPN 355, and JPN 370.

JPN 455 - Advanced Translation from English to Japanese (4)
Translation from English to Japanese of a wide variety of texts on such subjects as literature, culture, business, technology, and international affairs.
Prerequisite(s): JPN 314, JPN 316, JPN 318, and JPN 355.

JPN 457 - Business Japanese (4)
Introduction to the essential vocabulary and style specific to Japanese business as well as to the basic working of the Japanese economy. The course will broaden one's understanding of Japanese society through analysis of Japanese business practices. Conducted in Japanese.
Prerequisite(s): JPN 316 AND 318 or equivalent.

JPN 491 - Independent Translation Project (4)
Directed annotated translation from Japanese into English of a major work or works in the student's field. May not be counted toward the major.
Prerequisite(s): JPN 355 and 455 and permission of department.

LITERATURES IN TRANSLATION

LIT 100 - Introduction to Asian Literature (4)
A survey of the four great Asian literary traditions: China, Japan, India and Middle East. Satisfies the university general education requirement in the literature knowledge exploration area.

LIT 181 - European Literature I (4)
A study of the main literary currents as reflected in continental European masterpieces up to 1850. All works read in English translations. Satisfies the university general education requirement in the literature knowledge exploration area.

LIT 182 - European Literature II (4)
A study of the main literary currents as reflected in continental European masterpieces from 1850 to the present. All works read in English translations. Satisfies the university general education requirement in the literature knowledge exploration area.

LIT 251 - Studies In Foreign Film (4)
A study of film as a mirror of the cultures and aesthetics of various societies. Topics to be selected by the instructor.

LIT 375 - Topics in Foreign Literature (4)
A study of the main literary currents of a particular century or era of a major foreign literature. All works read in English translation. May not be used to satisfy requirements in the Department of Modern Languages and Literatures. May be repeated for credit with readings from a different foreign literature in English translation.

SPANISH LANGUAGE AND LITERATURE

SPN 114 - Introduction to Spanish Language and Culture I (4)
A two-semester sequence in the fundamentals of Spanish and Hispanic cultures. A beginning course. SPN 114 must be taken first. SPN 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

SPN 115 - Introduction to Spanish Language and Culture II (4)
A two-semester sequence in the fundamentals of Spanish and Hispanic cultures. A beginning course. SPN 114 must be taken first. SPN 114 or 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

SPN 119 - Accelerated Review of Elementary Spanish and Spanish Culture (4)
One-semester course designed to review the fundamentals of Spanish and Spanish culture. Designed for students who have three or more years of previous Spanish experience. Covers the same materials as the two-semester sequence of Spanish 114-115. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.

SPN 214 - Second Year Spanish I (4)
A two-semester sequence continuing the work of SPN 114-115, with the addition of cultural and literary readings. Conducted in Spanish. SPN 214 or SPN 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge application integration, not both. Prerequisite for knowledge application integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Spanish or equivalent.

SPN 215 - Second Year Spanish II (4)
A two-semester sequence continuing the work of SPN 114-115, with the addition of cultural and literary readings. Conducted in Spanish. SPN 214 must be taken first. SPN 214 or SPN 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area or the knowledge application integration area, not both. Prerequisite for knowledge application integration: completion of the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): one year of college Spanish or equivalent.

SPN 290 - Directed Readings in Spanish (2 or 4)
A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor.
Prerequisite(s): SPN 215.

SPN 313 - Spanish Phonetics (2)
Group and individual practice in the sound system of Spanish, with specific reference to interference from English. Both written and laboratory work required. Conducted in Spanish.
Prerequisite(s): SPN 215.

SPN 314 - Spanish Grammar Review (4)
Review of Spanish grammar and syntax through a variety of approaches. Conducted in Spanish.
Prerequisite(s): SPN 215.

SPN 316 - Spanish Conversation (2)
Provides a transition between the carefully structured drills and free manipulation of the spoken language. Must be taken with SPN 318. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 318 - Spanish Composition (2)
Development of written composition skills including description, narration and exposition. Must be taken with SPN 316. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 350 - Latin American Civilization (4)
Historical approach to Latin American culture and civilization, with emphasis on geography, social structure, philosophical thought, music, art and popular culture. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 351 - Spanish Civilization (4)
Historical approach to Spanish culture and civilization, with emphasis on geography, social structure, philosophical thought, music, art and architecture. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 355 - Translation: Spanish into English (4)
Translation from Spanish to English of a variety of materials that may range from commercial, technical to literary texts. Offered winter semester.
Prerequisite(s): SPN 314.

SPN 358 - Spanish Language and Culture for Health Care Professionals (4)
Prepares students to communicate effectively with Spanish speaking patients in medical settings. Designed to help students achieve an intermediate level in Spanish and places special emphasis on oral communication on health-related topics. Focus on the most common procedures followed by health care professionals.
Prerequisite(s): SPN 215.

SPN 369 - Field Experience in Teaching Spanish in Elementary and Middle Schools (2 or 4)
Provides supervised experience in teaching Spanish in elementary and middle schools. Graded S/U. May be repeated for credit once. Does not carry credit toward departmental major.
Prerequisite(s): SPN 215.

SPN 370 - Introduction to Spanish Literature (4)
Study of literary genres and movements based on selected masterpieces of Spanish literature. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 380 - Introduction to Spanish-American Literature (4)
Further study of literary genres and movements based on selected masterpieces of Spanish-American literature. Conducted in Spanish.
Prerequisite(s): SPN 215. SPN 314 highly recommended.

SPN 390 - Directed Readings in Spanish (2 or 4)
Directed individual readings in Spanish. May be repeated.
Prerequisite(s): permission of instructor.

SPN 399 - Advanced Spanish and Academic Service Learning (4)
Supervised academic service learning experience teaching Spanish in schools, organizations, and OU programs. Course requires community service. Students spend four hours per week in class; significant time spent volunteering in the community and reflecting on the volunteer experience. Conducted in Spanish.
Prerequisite(s): SPN 314; SPN 316 and 318 and permission of instructor.

SPN 408 - Advanced Spanish Conversation and Composition (4)
Development of advanced writing and conversational skills with emphasis on appropriate vocabulary, style, grammar and syntax. Offered fall semester. Conducted in Spanish. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 316 and 318.

SPN 415 - Medieval Literature of the Iberian Peninsula (4)
Socio-historic and literary analyses of the Mozarabic jarchas, several archetypes of the Iberian epic, Medieval ejempla, parables, drama and poetry. Conducted in Spanish.
Prerequisite(s): SPN 370 and 380.

SPN 416 - Spanish Literature - Fifteenth and Sixteenth Centuries (4)
Following a brief introduction to medieval origins, a study of works in various genres by leading Spanish authors of the Renaissance period. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 417 - Spanish Literature - Seventeenth Century (4)
A study of works in various genres by leading Spanish authors of the Baroque period. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 418 – Cervantes (4)
Socio-historic literary analyses of Don Quijote de la Mancha and other representative works of Miguel de Cervantes. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 419 - Spanish Literature - Eighteenth and Nineteenth Centuries (4)
A study of works in various genres by leading Spanish authors beginning with Neoclassicism and including Naturalism. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 420 - Spanish Literature - Twentieth Century (4)
A study of works in various genres by leading modern and contemporary Spanish authors from the Generation of ‘98 to the present. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 455 - Translation: English into Spanish (4)
Translation from English to Spanish using a variety of materials that may range from commercial, technical to literary texts. Offered fall semester.
Prerequisite(s): SPN 314 and 318.

SPN 457 - Business Spanish (4)
Introduction to the essential vocabulary and style specific to Spanish business as well as to the basic workings of the Hispanic economy. All language skills receive equal emphasis. Course conducted in Spanish.
Prerequisite(s): SPN 314, 316 and 318.

SPN 480 - Undergraduate Seminar (2 or 4)
Study of individual authors, selected themes or critical problems. Conducted in Spanish.
Prerequisite(s): SPN 370 and 380.

SPN 488 - Spanish-American Literature before 1888 (4)
A study of works in various genres by leading Spanish-American authors from the Colonial Period to Modernism. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 489 - Spanish-American Literature after 1888 (4)
A study of works in various genres by leading Spanish-American authors of modern and contemporary literature. Conducted in Spanish. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SPN 370 and 380.

SPN 490 - Independent Reading and Research (2 to 8)
Directed individual research and reading for advanced Spanish majors. May be repeated.
Prerequisite(s): two 400-level Spanish literature courses and permission of department.

SPN 491 - Independent Translation Project (4)
Directed annotated translation from Spanish into English of a major work or works in the student's field. May not be counted toward the major.
Prerequisite(s): SPN 355 and permission of department.

MODERN LANGUAGE

ML 191 - Tutorial in Foreign Language – Study Abroad (4)
Instruction in the elements of a spoken or written foreign language such as Bengali, Czech, Sanskrit, Catalan, etc. for which no regular course sequence exists at Oakland University. May be repeated for credit in a different language each time. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite(s): permission of instructor.

ML 192 - Tutorial in Foreign Language – Study Abroad (4)
Instruction in the elements of a spoken or written foreign language such as Bengali, Czech, Sanskrit, Catalan, etc. for which no regular course sequence exists at Oakland University. May be repeated for credit in a different language each time. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area. Prerequisite(s): permission of instructor.

ML 290 - Topics Related to Foreign Language Study (2 or 4)
Topics explored in areas not normally a part of regular offerings in language or literature. May be repeated.
Prerequisite(s): permission of instructor.

ML 291 - Intermediate Tutorial in Foreign Language (4)
Intermediate work in a language and literature not normally taught at Oakland University. May be repeated for credit.
Prerequisite(s): permission of instructor.

ML 292 - Intermediate Tutorial in Foreign Language (4)
Intermediate work in a language and literature not normally taught at Oakland University. May be repeated for credit.
Prerequisite(s): permission of instructor.

ML 390 - Advanced Study of Topics Related to Foreign Languages and Cultures (2 or 4)
Topics are explored in areas not normally a part of regular offerings in language, culture or literature. May be repeated.
Prerequisite(s): permission of department.

ML 391 - Advanced Tutorial in Foreign Language (4)
Advanced work in a language not normally taught at Oakland University. May be repeated for credit.
Prerequisite(s): permission of instructor.

ML 392 - Advanced Tutorial in Foreign Language (4)
Advanced work in a language not normally taught at Oakland University. May be repeated for credit.
Prerequisite(s): permission of instructor.

ML 399 - Field Experience in a Modern Language (4)
Field experience in an appropriate employment setting correlated with directed study assignments relating the experience to the knowledge and skills developed by the foreign language student. May not be repeated for credit.
Prerequisite(s): junior/senior standing. Minimum of 16 credits in the major including FRH or SPN 314, SPN 316 and SPN 318, or GRM 316 and GRM 318.

ML 440 - Interactive Technology: Computers in Foreign Language Teaching (4)
The course will develop competency in creating supplementary computer software for foreign language classes in the schools. It will include designing and field-testing interactive computer programs, proficiency-based units, and programs for “housekeeping chores”. In addition, students will learn to evaluate commercial material.
Prerequisite(s): B.A. or B.S. or completion of EED 428 or equivalent (methodology of teaching foreign languages) or permission of the instructor. Major or minor in a foreign language or English as a second language. Prior experience with computers highly recommended.

Department of Music, Theatre and Dance

207 VARNER HALL
(248) 370-2030
Fax: (248) 370-2041
Department Website: oakland.edu/mtd

Chairperson: *Jacqueline Wiggins*

Program directors: *Deborah VanderLinde, Music; Kerro Knox, Theatre; Gregory Patterson, Dance*

Professors emeriti: *David Daniels (music), John Dovaras (music), Laurie Eisenhower (dance), Robert Facko (music), Michael Gillespie (theatre), Carol Halsted (dance), Adeline G. Hirschfeld-Medalia (theatre), Marvin D. Holladay (music), Flavio Varani (music)*

Distinguished professor: *Jacqueline Wiggins*

Professors: *James Lentini, Michael Mitchell, Karen Sheridan, John-Paul White*

Associate professors: *Gregory Cunningham, Drake Dantzler, Anthony Guest, Melissa Hoag, Thayer Jonutz, David Kidger, Kerro Knox, Kenneth Kroesche, Fred Love, Gregory Patterson, Jessica Payette, Joseph Shively, George Stoffan, Mark Stone, Deborah VanderLinde*

Assistant professors: *Jeremy Barnett, Miles Brown, Jeffrey Heisler, Lynnae Lehfeldt, Elizabeth Kattner-Ulrich, Tian Tian, Alison Woerner*

Adjunct assistant professor: *Edith Diggory*

Artist-in-residence: *Regina Carter*

DSO affiliate applied faculty: *Marcus Schoon (bassoon), Sharon Sparrow (flute), Jeffrey Zook (flute)*

Special lecturers: *Alta Dantzler, Patrick Fitzgibbon, Bret Hoag, Jennifer Harge, Jake Hooker, Lois Kaarre, Jennifer Kincer Catallo, Leslie Littell, Roberta Lucas, Thomas Mahard, Stephanie Pizzo, Victoria Shively, Michele Soroka, Kristin Tait, Christina Tasco, Phyllis White*

Lecturers: *Joseph Beck (scene shop supervisor), Debra Bernstein-Siegel, Barbara Bland, Ricky Carver, Rebecca Crimmins, Sean Dobbins, Kitty Dubin, Michael Duncan, Patrick Fitzgibbon, Nina Flanigan, Dana Gamarra, Mila Govich, Rebecca Happel, Christy Koerner (costume shop supervisor), Phill Harmer, Terry Herald (sound technician/technical coordinator), Alissa Hetzner, Christy Heussner, Melanie King, Lesley Kay, Alan MacNair, Daniel Maslanka, Zeljko Milicevic, Christopher Napier, Diane Raymond, Elizabeth Rowin, Marcus Schoon, Carly Uhrig, Spiros Xydas, Jocelyn Zelasko*

Applied music instructors:
Brass: *David Denniston (French horn), Kenneth Kroesche (low brass), Gordon Simmons (trumpet)*
Woodwind: *Jeffrey Heisler (saxophone), Timothy Michling (oboe), Marcus Schoon (bassoon), Amanda Sparfeld (flute), Sharon Sparrow (flute), George Stoffan (clarinet), Jeffrey Zook (flute)*
Strings: *Kerstin Allvin (harp), Miles Brown (double bass), Nadine DeLeury (cello), Roman Kosarev (viola), Elizabeth Rowin (violin)*
Percussion: *Sean Dobbins, Daniel Maslanka, Mark Stone*
Guitar: *John Hall, Bret Hoag*
Keyboard: *Rebecca Happel (piano), Tian Tian (piano), I-Chen Yeh (piano), Jeremy Tarrant (organ), Dennis Curry*

(carillon)
Voice: *Barbara Bland, Alta Dantzler, Drake Dantzler, Edith Diggory, Stephen Eisenhard, Melissa Maloney, Stephanie Michaels, Nadine Washington, John-Paul White*
Jazz: *Miles Brown (bass), Sean Dobbins (percussion), Scott Gwinnell (piano), Mark Kieme (saxophone), John Rutherford (trombone), Anthony Stanco (trumpet)*
World Music: *Sam Jeyasingam (Indian percussion), Mark Stone (African and Caribbean percussion)*

Accompanists:
Music: *Samantha Beresford, Scott Gwinnell (jazz), Paul McCaffrey, Rudolf Ozolins, Amanda Sabelhaus, Julie Steinmayer, I-Chen Yeh (instrumental accompanying coordinator), Eun Young Yoo, Tatyana Zut, Stanley Zydek (voice accompanying coordinator)*
Musical Theatre: *Alissa Hetzner, Julie Malloy, Jamie Reed*
Dance: *Patrick Fitzgibbon, Vladimir Kalmsky, Mike List, Michael McCabe, Michael Shimmin*

Center for Applied Research in Musical Understanding:
Joseph Shively, director; Deborah VanderLinde, Jacqueline Wiggins

Music Preparatory Division: *Bibianne Yu, director*

Programs Offered

The Department of Music, Theatre and Dance offers liberal arts programs in the performing arts, programs designed to prepare students for professional careers in the performing arts, and advanced programs designed to enhance and extend the professional knowledge of performing arts professionals. In the liberal arts programs, a student can earn a Bachelor of Arts degree with a major in:

- MUSIC
- THEATRE
- DANCE

Professional preparation programs include:

- Bachelor of Fine Arts in Dance;
- Bachelor of Fine Arts in Theatre with a major in acting, musical theatre, or theatre design and technology; and
- Bachelor of Music with a major in music education or; voice, piano, or instrumental performance; or a combined degree in music education and performance.
- The music program also offers Performer's Certificates in Undergraduate and Graduate Piano.

Graduate programs for music professionals include a Master of Music with a major in performance, pedagogy, conducting or music education; Graduate and Post-master's Certificates in performance, pedagogy, conducting or music education; and a Doctor of Philosophy in music education.

Liberal arts minors are offered in music, theatre or dance. Elementary and secondary teaching minors are offered in dance. Minors in jazz studies and world music are offered for music majors and non-majors.

The department offers student performance opportunities in dramatic and musical theatre productions, dance performances, music ensembles and recitals. Most performance opportunities are open to all qualified students.

All programs offered by the Department of Music, Theatre and Dance are fully accredited by the National Association of Schools of Music, the National Association of Schools of Theatre and the National Association of Schools of Dance.

Outreach, Partnerships and Opportunities

Center for Applied Research in Musical Understanding

The mission of the Center for Applied Research in Musical Understanding (CARMU) is to:

- transform practice in music education;
- build and advance a research-based pedagogy of teaching for musical understanding;
- support preK-12 music educators in Michigan, the United States, and internationally;
- demonstrate how research informs professional practice in music education;
- seek national and international eminence in applied research in musical understanding at Oakland University;
- support faculty, graduate and undergraduate research in musical understanding.

The Center hosts biannual international conferences on music learning and teaching and publishes materials that support the work of music educators. Visit oakland.edu/carmu.

Music Preparatory Division

The department offers music programs to the community through the Music Preparatory Division (302 Varner Hall, 248-370-2034). The Prep Division offers private studio lessons in voice, piano, guitar, and all orchestral instruments for elementary and secondary school students and adults as well as classes in music theory, early childhood music, creative music for children, and piano readiness. The Music Prep Division also provides lessons for undergraduate students who wish to study an instrument or voice but do not have enough prior experience to study for college credit.

Affiliated professional organizations

- Eisenhower Dance (in residence)
- Patterson Rhythm Pace Dance Company
- Take Root (dance company)
- Meadow Brook Theatre Ensemble

Partners in the performing arts

- Chamber Music Society of Detroit
- Detroit Symphony Orchestra (DSO)
- Synergy on Stage
- Oakland Youth Orchestras (OYO)
- Oakland University Cooperative Orchestral Library (OUCOL)

Professional internship opportunities

- Oakland Symphony Orchestra
- Eisenhower Dance Apprenticeships
- Take Root Apprenticeships
- Meadow Brook Theatre Ensemble Apprenticeships
- Student Teaching in Regional K-12 Schools

Study abroad opportunities

- Classical Theatre Study in Greece
- Traditional Music and Dance in Ghana
- Dance Study in Berlin, Germany

Departmental Honors and Awards

The department offers honors and awards for students, alumni, and community supporters. Departmental honors are awarded for a combination of academic achievement (minimum 3.30 GPA), artistry in the major area of study and contribution to the operations of the department. Alumni Arts Achievement Awards are presented in dance, music and theatre. The department also awards a Distinguished Community Service Award and an Outstanding Student Service Award.

The music program confers a Distinguished Musicianship Award as the department's highest honor in music and Outstanding Student Awards to students who distinguish themselves in performance, music education, chamber music and jazz. The Joyce Weintraub Adelson Memorial Award for Piano Ensemble honors the memory of an Oakland University piano instructor and the Jennifer Scott Memorial Award honors the memory of an Oakland University piano student.

The theatre and dance programs confer a variety of awards, including Outstanding Student Awards in choreography, dance performance, musical theatre, theatre design and technology. The Gittlin Theatre and Gittlin Achievement Awards are scholarships offered to theatre students of promise and outstanding ability.

Music Program

Admission to Music degree programs

Admission to the music degree programs at Oakland University (OU) is a two-tiered process, except for the B.A. in Music. The first step in the process for all students is the entrance audition. These auditions are held several times a year and determine whether or not a student will be admitted to OU in any of these degree programs. For all B.M. programs, the second step is the major standing audition, which determines whether students may continue in the program, and if they can be admitted into a professional program in the school.

Entrance auditions

Entrance audition days are held several times each year. The audition schedule and downloadable application are available on the school website at www.oakland.edu/music. Please submit application to the department office. Students should be prepared to demonstrate proficiency in their proposed area of specialization.

- Students seeking admission to Oakland University as music majors or auditioned music minors must audition for the music faculty.
- Students who audition and do not enroll within two semesters must re-audition.
- Students who enroll and leave school for at least two semesters must re-audition. Music students who enroll and leave school must re-audition and also retake the theory placement exam.

Requirements for the liberal arts major in music, B.A. program

This degree is for students who wish a broad general education without a high degree of specialization in music. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

For this program, MUS 131 satisfies the general education arts requirement. MUS 331, 332, 420, 423 and 430 count as writing intensive in the major. MUS 420, or 430 count as the general education capstone. Only major courses in which a grade of at least 2.0 has been earned will count toward the major.

This degree program requires a minimum of 124 credits.

Applied Music - 16 credits (or placement)

- 12 credits in a single instrument or voice (must progress to a pass 300-level applied)
- 4 credits of an applied elective (may include conducting and keyboard techniques, if applied area is not piano)

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) and MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) and MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

Required electives - 12 credits (or placement)

- One music history capstone course selected from
- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- **plus two courses selected from the following (at least one of the two must be music theory)**
- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Language requirement - 4-8 credits

- Modern language course (115 or higher)

Ensembles - 4 credits

Must enroll in an ensemble that uses the primary performance area every semester of major (minimum of 4 times for credit)

- MUE 301 - University Chorus (0 or 1)
- MUE 304 - Oakland Chorale (0 or 1)
- MUE 319 - University Chamber Orchestra (0 or 1)
- MUE 320 - Oakland Symphony (0 or 1)
- MUE 329 - Symphonic Band (0 or 1)
- MUE 331 - Wind Symphony (0 or 1)

Non-credit requirement

- Events attendance requirement

Requirements for the major in Music Education, Bachelor of Music program (specialization in choral and general music)

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. A minimum grade of 3.0 is required in all professional courses, marked with an asterisk (*) in the list below. Application for music education major standing takes place upon completion of MUS 240.

For this program, MUS 131 satisfies the general education arts requirement; MUS 331, 332, and 431 count as writing intensive in the major; and MUS 431 counts as the general education capstone.

Degree requirements are as follows:

Requirements specific to the voice major - 35 credits (or placement)

- MUA 160 - Vocal Techniques (2)
- MUA 100 - Voice (1 credit first semester, 2 credits second semester, 3 credits total)
- MUA 200 - Voice (2 credits per semester, 4 credits total)

- MUA 300 - Voice (2 credits per semester, 4 credits total)
- MUA 400 - Voice (2 credits per semester, 4 credits total)
- MUS 211 - Diction for Singers I (2)
- MUS 212 - Diction for Singers II (2)
- MUA 250 - Instrumental Techniques for Choral Majors (2) *
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 291 - Keyboard Technique III (2)
- MUA 292 - Keyboard Technique IV (2)
- MUA 391 - Accompanying for the Non-pianist I (2)
- MUA 392 - Accompanying for the Non-pianist II (2)

Requirements specific to the piano major - 35 credits (or placement)

- MUA 101 - Piano (2 credits per semester, 4 credits total)
- MUA 201 - Piano (2 credits per semester, 4 credits total)
- MUA 301 - Piano (2 credits per semester, 4 credits total)
- MUA 401 - Piano (2 credits per semester, 4 credits total)
- MUA 161 - Vocal Techniques for Instrumentalists I (1)
- MUA 162 - Vocal Techniques for Instrumentalists II (2)
- MUA 100 - Voice (4)
- MUA 250 - Instrumental Techniques for Choral Majors (2) *
- MUA 375 - Accompanying for Piano Majors (2)
- MUA 443 - Keyboard Skills for the Piano Major I (2)
- MUA 444 - Keyboard Skills for the Piano Major II (2)
- MUS 211 - Diction for Singers I (2)
- MUS 212 - Diction for Singers II (2)

Required courses for both voice and piano majors

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) /MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) /MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) /MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) /MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective course (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Minimum of 2 credits of improvisation or composition selected from

- MUE 310 - Vocal Jazz Improvisation Workshop (0 or 1)
- MUE 315 - Oakland Jazz Singers (0 or 1)
- MUE 340 - Oakland University Jazz Band (0 or 1)

- MUE 341 - Jazz Improvisation Combos (0 or 1)
- MUE 345 - African Ensemble (0 or 1)
- MUE 346 - Steel Band (0 or 1)
- MUE 348 - World Percussion Ensemble (0 or 1)
- MUE 365 - Contemporary Music Ensemble (0 or 1)
- MUT 314 - Jazz Theory and Improvisation I (2)
- MUT 315 - Jazz Theory and Improvisation II (2)

Language - 4 credits

Must choose a foreign language (Italian, French, or German recommended) to fulfill foreign language requirement (not ALS or ML)

Ensembles - 8 credits

Must enroll in ensemble that uses primary performance area every semester of major. Voice majors must choose a vocal ensemble. Pianists may choose any major ensemble.

- MUE 301 - University Chorus (0 or 1)
- MUE 304 - Oakland Chorale (0 or 1)
- MUE 319 - University Chamber Orchestra (0 or 1)
- MUE 320 - Oakland Symphony (0 or 1)
- MUE 329 - Symphonic Band (0 or 1)
- MUE 331 - Wind Symphony (0 or 1)

Professional courses and requirements - 41 credits (or placement) and MTTC

- MUS 140 - Learning and Teaching Music (1) *
- MUS 240 - Educational Psychology and Music Learning (3) *
- MUS 241 - Elementary General Music Methods (3) *
- MUS 395 - Conducting I (2) *
- MUS 396 - Conducting II (2) *
- MUS 412 - Choral Methods (3) *
- MUS 398 - Instrumental Methods for Choral Majors (1) *
- MUS 431 - Teaching Music in the 21st Century I (3) *
- MUS 432 - Teaching Music in the 21st Century II (3) *
- RDG 338 - Teaching Reading in the Content Areas (4) *
- SE 401 - Introduction to Students with Special Needs (4) *
- SED 455 - Internship in Secondary Education (12) *

- Michigan Test for Teacher Certification (MTTC): Professional Readiness Exam and Music Education portion

Note

For students with piano as applied major, enrollment in MUA 160 or MUA 161 is by placement audition. Students placing into MUA 160 take the following 8-credit sequence: MUA 160, MUA 100 and two semesters of MUA 200. Students placing into MUA 161 take the following 7-credit sequence: MUA 161, MUA 162 and two semesters of MUA 100.

*A minimum grade of 3.0 is required in all professional courses.

Application for music education major standing takes place upon completion of MUS 240.

Non-credit requirements

- Major standing
- Events attendance requirement

Requirements for the major in Music Education and Performance, Bachelor of Music program (specialization in choral and general music)

Admission to Music degree programs

Admission to the music degree programs at Oakland University (OU) is a two-tiered process, except for the B.A. in Music. The first step in the process for all students is the entrance audition. These auditions are held several times a year and determine whether or not a student will be admitted to OU in any of these degree programs. For all B.M. programs, the second step is the major standing audition, which determines whether students may continue in the program, and if they can be admitted into a professional program in the school.

Entrance auditions

Entrance audition days are held several times each year. The audition schedule and downloadable application are available on the school website at www.oakland.edu/music. Please submit application to the department office. Students should be prepared to demonstrate proficiency in their proposed area of specialization.

- Students seeking admission to Oakland University as music majors or auditioned music minors must audition for the music faculty.
- Students who audition and do not enroll within two semesters must re-audition.
- Students who enroll and leave school for at least two semesters must re-audition. Music students who enroll and leave school must re-audition and also retake the theory placement exam.

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. A minimum grade of 3.0 is required in all professional courses, marked with an asterisk (*) in the list below. Application for music education major standing takes place upon completion of MUS 240.

For this program, MUS 131 satisfies the general education arts requirement, MUS 331, 332, and 431 count as writing intensive in the major; and MUA 499 and MUS 431 count as the general education capstone.

Degree requirements are as follows:

Requirements specific to the voice major - 50 credits (or placement)

- MUA 160 - Vocal Techniques (2)
- MUA 100 - Voice (1 credit first semester, 2 credits second semester, 3 credits total)
- MUA 200 - Voice (2 credits per semester, 4 credits total)
- MUA 300 - Voice (4 credits per semester, 8 credits total)
- MUA 400 - Voice (1 semester, 4 credits total)
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 250 - Instrumental Techniques for Choral Majors (2) *
- MUA 291 - Keyboard Technique III (2)
- MUA 292 - Keyboard Technique IV (2)

- MUA 391 - Accompanying for the Non-pianist I (2)
- MUA 392 - Accompanying for the Non-pianist II (2)
- MUA 499 - Senior Recital (4 or 6) (6)
- MUE 350 - Opera Workshop (1)
- MUS 211 - Diction for Singers I (2)
- MUS 212 - Diction for Singers II (2)
- MUS 461 - Vocal Repertoire I (2)
- MUS 462 - Vocal Repertoire II (2)

Requirements specific to the piano major - 51 credits (or placement)

- MUA 101 - Piano (2 credits per semester, 4 credits total)
- MUA 201 - Piano (2 credits per semester, 4 credits total)
- MUA 301 - Piano (4 credits per semester, 8 credits total)
- MUA 401 - Piano (one semester, 4 credits)
- MUA 375 - Accompanying for Piano Majors (2)
- MUA 443 - Keyboard Skills for the Piano Major I (2)
- MUA 444 - Keyboard Skills for the Piano Major II (2)
- MUA 499 - Senior Recital (4 or 6)
- MUS 455 - Piano Repertoire I (2)
- MUS 457 - Piano Repertoire II (2)
- MUS 441 - Piano Pedagogy I (2)
- MUS 442 - Piano Pedagogy II (2)
- MUA 250 - Instrumental Techniques for Choral Majors (2) *
- MUA 161 - Vocal Techniques for Instrumentalists I (1)
- MUA 162 - Vocal Techniques for Instrumentalists II (2)
- MUA 100 - Voice or MUA 200 - Voice (by audition) (4)
- MUS 211 - Diction for Singers I (2)
- MUS 212 - Diction for Singers II (2)

Required courses for both voice and piano majors

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) and MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) and MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective course (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Minimum of 2 credits of improvisation or composition selected from

- MUE 310 - Vocal Jazz Improvisation Workshop (0 or 1)
- MUE 315 - Oakland Jazz Singers (0 or 1)
- MUE 340 - Oakland University Jazz Band (0 or 1)
- MUE 341 - Jazz Improvisation Combos (0 or 1)
- MUE 345 - African Ensemble (0 or 1)
- MUE 346 - Steel Band (0 or 1)
- MUE 348 - World Percussion Ensemble (0 or 1)
- MUE 365 - Contemporary Music Ensemble (0 or 1)
- MUT 314 - Jazz Theory and Improvisation I (2)
- MUT 315 - Jazz Theory and Improvisation II (2)

Language - 4 credits

- Must choose a foreign language (Italian, French, or German recommended) to fulfill general education foreign language requirement (not ALS or ML).

Ensembles - 8 credits

Must enroll in ensemble that uses primary performance area every semester of major. Voice majors must choose a vocal ensemble. Pianists may choose any major ensemble.

- MUE 301 - University Chorus (0 or 1)
- MUE 304 - Oakland Chorale (0 or 1)
- MUE 319 - University Chamber Orchestra (0 or 1)
- MUE 320 - Oakland Symphony (0 or 1)
- MUE 329 - Symphonic Band (0 or 1)
- MUE 331 - Wind Symphony (0 or 1)

Professional music education courses and requirements - 41 credits (or placement) and MTTC

- MUS 140 - Learning and Teaching Music (1) *
- MUS 240 - Educational Psychology and Music Learning (3) *
- MUS 241 - Elementary General Music Methods (3) *
- MUS 412 - Choral Methods (3) *
- MUS 395 - Conducting I (2) *
- MUS 396 - Conducting II (2) *
- MUS 398 - Instrumental Methods for Choral Majors (1) *
- MUS 431 - Teaching Music in the 21st Century I (3) *
- MUS 432 - Teaching Music in the 21st Century II (3) *
- RDG 338 - Teaching Reading in the Content Areas (4) *
- SE 401 - Introduction to Students with Special Needs (4) *
- SED 455 - Internship in Secondary Education (12) *
- Michigan Test for Teacher Certification (MTTC): Professional Readiness Exam and Music Education portion
- A minimum grade of 3.0 is required in all professional courses. Application for music education major standing takes place upon completion of MUS 240.

Note

For piano majors, enrollment in MUA 160 or MUA 161 is by placement audition. Students placing into MUA 160 take the following 8 credits sequence: MUA 160, MUA 100 and two semesters of MUA 200. Students placing into MUA 161 take the following 7-credit sequence: MUA 161, MUA 162 and two semesters of MUA 100.

Non-credit requirements

- Events attendance requirement
- Major standing

Requirements for the major in Music Education and Performance, Bachelor of Music program (specialization in instrumental and general music)

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. A minimum grade of 3.0 is required in all professional courses, marked with an asterisk (*) in the list below. Application for music education major standing takes place upon completion of MUS 240.

For this program, MUS 131 satisfies the general education arts requirement; MUS 331, 332 and 431 count as writing intensive in the major; and MUA 499 and MUS 431 count as the general education capstone.

Degree requirements are as follows:

Applied music - 39 credits (or placement)

- MUA 499 - Senior Recital (4 or 6)
- MUA 161 - Vocal Techniques for Instrumentalists I (1)
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 291 - Keyboard Technique III (2)
- MUA 292 - Keyboard Technique IV (2)
- MUS 463 - Instrumental Repertoire I (1)
- MUS 464 - Instrumental Repertoire II (1)
- MUS 447 - Instrumental Teaching Studio (2)

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) /MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) /MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) /MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) /MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Minimum of 2 credits of improvisation or composition selected from

- MUE 310 - Vocal Jazz Improvisation Workshop (0 or 1)
- MUE 315 - Oakland Jazz Singers (0 or 1)
- MUE 340 - Oakland University Jazz Band (0 or 1)
- MUE 341 - Jazz Improvisation Combos (0 or 1)
- MUE 345 - African Ensemble (0 or 1)
- MUE 346 - Steel Band (0 or 1)
- MUE 348 - World Percussion Ensemble (0 or 1)
- MUE 365 - Contemporary Music Ensemble (0 or 1)
- MUT 314 - Jazz Theory and Improvisation I (2)
- MUT 315 - Jazz Theory and Improvisation II (2)

Language - 4 credits

- Must choose a foreign language to fulfill general education foreign language requirement (not ALS or ML).

Ensembles - 12 credits

Must enroll in a large ensemble that uses the primary performance area every semester of major.

- Large ensembles: MUE 329 - Symphonic Band or MUE 319 - University Chamber Orchestra or MUE 331 – Wind Symphony (8)

- Small ensembles (4)

Professional music education courses and requirements - 48 credits (or placement) and MTTC

- MUA 270 - Percussion Techniques (1) *
- MUA 272 - Brass Techniques (1) *
- MUA 273 - Woodwind Techniques (1) *
- MUA 274 - String Techniques (1) *
- MUS 140 - Learning and Teaching Music (1) *
- MUS 240 - Educational Psychology and Music Learning (3) *
- MUS 241 - Elementary General Music Methods (3) *
- MUS 395 - Conducting I (2) *
- MUS 396 - Conducting II (2) *
- MUS 400 - Elementary Instrumental Methods (2) *
- MUS 404 - Secondary Instrumental Methods (2) *
- MUS 405 - Marching Band Methods (1) *
- MUS 406 - Jazz Pedagogy (1) *
- MUS 409 - Choral Methods for Instrumental Majors (1) *
- MUS 431 - Teaching Music in the 21st Century I (3) *
- MUS 432 - Teaching Music in the 21st Century II (3) *
- RDG 338 - Teaching Reading in the Content Areas (4) *
- SE 401 - Introduction to Students with Special Needs (4) *
- SED 455 - Internship in Secondary Education (12)*
- Michigan Test for Teacher Certification (MTTC: Professional Readiness Exam and Music Education portion

*A minimum grade of 3.0 is required in all professional courses.

Non-credit requirements

- Major standing
- Events attendance requirement

Note

Application for music education major standing takes place upon completion of MUS 240.

Requirements for the major in Music Education, Bachelor of Music program (specialization in instrumental and general music)

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. A minimum grade of 3.0 is required in all professional courses, marked with an asterisk (*) in the list below. Application for music education major standing takes place upon completion of MUS 240.

For this program, MUS 131 satisfies the general education arts requirement; MUS 331, 332, and 431 count as writing intensive in the major: and MUS 431 counts as the general education capstone.

Degree requirements are as follows:

Applied music - 23 credits (or placement)

- MUA 1xx-4xx - Applied major (normally an orchestral instrument)
- MUA 1xx (2 credits per semester, 4 credits total)
- MUA 2xx (2 credits per semester, 4 credits total)
- MUA 3xx (2 credits per semester, 4 credits total)
- MUA 4xx (2 credits per semester, 4 credits total)
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 291 - Keyboard Technique III (2)
- MUA 161 - Vocal Techniques for Instrumentalists I (1)

Music history, theory, and world music - 28 credits (or placement)

- • MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- • MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- • MUT 212 - Music Theory III (3) and MUT 213 - Aural Skills III (1)
- • MUT 214 - Music Theory IV (3) and MUT 215 - Aural Skills IV (1)
- • MUS 131 - History and Literature of Western Tonal Music (3)
- • MUS 132 - Music of World Cultures (3)
- • MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- • MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Minimum of 2 credits of improvisation or composition selected from

- MUE 310 - Vocal Jazz Improvisation Workshop (0 or 1)
- MUE 315 - Oakland Jazz Singers (0 or 1)
- MUE 340 - Oakland University Jazz Band (0 or 1)
- MUE 341 - Jazz Improvisation Combos (0 or 1)
- MUE 345 - African Ensemble (0 or 1)
- MUE 346 - Steel Band (0 or 1)
- MUE 348 - World Percussion Ensemble (0 or 1)
- MUE 365 - Contemporary Music Ensemble (0 or 1)
- MUT 314 - Jazz Theory and Improvisation I (2)
- MUT 315 - Jazz Theory and Improvisation II (2)

Language - 4 credits

- Must choose a foreign language to fulfill general education foreign language requirement (not ALS or ML)

Ensembles - 8 credits

Must enroll in a large ensemble that uses the primary performance area every semester of major.

- Large ensembles: MUE 329 - Symphonic Band or MUE 319 - University Chamber Orchestra or MUE 331 - Wind Symphony (8)

Professional courses and requirements - 48 credits (or placement) and MTTC

- MUA 270 - Percussion Techniques (1) *
- MUA 272 - Brass Techniques (1) *
- MUA 273 - Woodwind Techniques (1) *
- MUA 274 - String Techniques (1) *
- MUS 140 - Learning and Teaching Music (1) *
- MUS 240 - Educational Psychology and Music Learning (3) *
- MUS 241 - Elementary General Music Methods (3) *
- MUS 395 - Conducting I (2)
- MUS 396 - Conducting II (2)
- MUS 400 - Elementary Instrumental Methods (2) *
- MUS 404 - Secondary Instrumental Methods (2) *
- MUS 405 - Marching Band Methods (1) *
- MUS 406 - Jazz Pedagogy (1) *
- MUS 409 - Choral Methods for Instrumental Majors (1) *
- MUS 431 - Teaching Music in the 21st Century I (3) *
- MUS 432 - Teaching Music in the 21st Century II (3)
- RDG 338 - Teaching Reading in the Content Areas (4) *
- SE 401 - Introduction to Students with Special Needs (4) *
- SED 455 - Internship in Secondary Education* (12)
- Michigan Test for Teacher Certification (MTTC): Professional Readiness Exam and Music Education portion

Requirements for the major in voice performance, Bachelor of Music program

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. For this program, MUS 131 satisfies the general education arts requirement, MUS 331 and 332 count as writing intensive in the major, and MUA 499 counts as the general education capstone in the major.

Degree requirements are as follows:

Applied music - 39 credits (or placement)

- MUA 160 - Vocal Techniques (2)
- MUA 100 - Voice (2)
- MUA 200 - Voice (4) (2 credits per semester)
- MUA 300 - Voice (8) (4 credits per semester)
- MUA 400 - Voice (4) (4 credits per semester)
- MUA 499 - Senior Recital (4 or 6)
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 291 - Keyboard Technique III (2)
- MUA 292 - Keyboard Technique IV (2)
- MUA 391 - Accompanying for the Non-pianist I (2)
- MUA 392 - Accompanying for the Non-pianist II (2)

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) /MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) /MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) /MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) /MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective course (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Other required courses - 12 credits (or placement)

- MUS 211 - Diction for Singers I (2)
- MUS 212 - Diction for Singers II (2)
- MUS 395 - Conducting I (2)
- MUS 461 - Vocal Repertoire I (2)
- MUS 462 - Vocal Repertoire II (2)
- MUE 350 - Opera Workshop (1) (2 credits)

Language - 4-8 credits

- Italian, French, or German course numbered 115 or higher

Ensemble - 8 credits

Must enroll in a large ensemble that uses the primary performance area every semester of major.

- MUE 301 - University Chorus (0 or 1) or
- MUE 304 - Oakland Chorale (0 or 1)

Non-credit requirements

- Major standing
- Events attendance requirement

Requirements for the major in piano performance, Bachelor of Music program

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. For this program, MUS 131 satisfies the general education arts requirement. MUS 331 and 332 count as writing intensive in the major, and MUA 499 counts as the general education capstone in the major.

Degree requirements are as follows:

This degree program requires a minimum of 124 credits.

Applied music - 30 credits (or placement)

- MUA 101 - Piano (1 OR 2) (4) (2 credits per semester, 4 credits total)
- MUA 201 - Piano (1 OR 2) (4) (2 credits per semester, 4 credits total)
- MUA 301 - Piano (1 TO 4) (8) (4 credits per semester, 8 credits total)
- MUA 401 - Piano (1 TO 4) (4) (4 credits total)
- MUA 375 - Accompanying for Piano Majors (2)
- MUA 443 - Keyboard Skills for the Piano Major I (2)
- MUA 444 - Keyboard Skills for the Piano Major II (2)
- MUA 499 - Senior Recital (4 or 6)

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) and MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) and MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)
- MUS 331 - History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective course (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Other required courses - 12 credits (or placement)

- MUS 395 - Conducting I (2)
- MUS 396 - Conducting II (2)
- MUS 441 - Piano Pedagogy I (2)

- MUS 442 - Piano Pedagogy II (2)
- MUS 455 - Piano Repertoire I (2)
- MUS 457 - Piano Repertoire II (2)

Ensembles - 8 credits

Must enroll in an ensemble every semester of major.

- MUE 301 - University Chorus (0 or 1)
- MUE 304 - Oakland Chorale (0 or 1)
- MUE 319 - University Chamber Orchestra (0 or 1)
- MUE 320 - Oakland Symphony (0 or 1)
- MUE 329 - Symphonic Band (0 or 1)
- MUE 331 - Wind Symphony (0 or 1)

Language - 4 credits

Language course numbered 114 or higher (German, French or Italian required)

Non-credit requirements

- Major standing
- Events attendance requirement
- Fifteen-minute sophomore recital
- Twenty-five-minute junior recital

Requirements for the major in instrumental performance, Bachelor of Music program

The Bachelor of Music degree is intended for students who wish pre-professional and professional preparation in music education and/or performance. Students should consult the Undergraduate Music Handbook available on the department website, oakland.edu/music and should also consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program.

Only major courses in which a grade of at least 2.0 has been earned will count toward the major. For this program, MUS 131 satisfies the general education arts requirement, MUS 331 and 332 count as writing intensive in the major, and MUA 499 counts as the general education capstone in the major.

Degree requirements are as follows:

Applied music - 34 credits (or placement)

- MUA 499 - Senior Recital (4 or 6)
- MUA 191 - Keyboard Technique I (2)
- MUA 192 - Keyboard Technique II (2)
- MUA 291 - Keyboard Technique III (2)
- MUA 292 - Keyboard Technique IV (2)

Music history, theory, and world music - 28 credits (or placement)

- MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- MUT 212 - Music Theory III (3) and MUT 213 - Aural Skills III (1)
- MUT 214 - Music Theory IV (3) and MUT 215 - Aural Skills IV (1)
- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)

- MUS 331 – History and Literature of Medieval and Renaissance Music (3)
- MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)

History or theory elective course (1 course) selected from

- MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
- MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
- MUS 430 - Seminar in Opera and Drama (4)
- MUT 311 - Musical Analysis and Form (4)
- MUT 312 - Counterpoint (4)
- MUT 410 - Analysis of Music Since 1900 (4)

Ensembles - 12 credits

Must enroll in a large ensemble that uses the primary performance area every semester of major.

- Large ensembles: MUE 301 - University Chorus or MUE 304 - Oakland Chorale or MUE 319 - Chamber Orchestra or MUE 329 - Symphonic Band or MUE 331 - Wind Symphony (8)

- Small ensembles (4)

Language - 4-8 credits

- Language course numbered 115 or higher (Italian, French or German recommended)

Other required courses - 8 credits (or placement)

- MUS 395 - Conducting I (2)
- MUS 396 - Conducting II (2)
- MUS 447 - Instrumental Teaching Studio (2)
- MUS 463 - Instrumental Repertoire I (1)
- MUS 464 - Instrumental Repertoire II (1)

Non-credit requirements

- Major standing
- Events attendance requirement

Requirements for the performer’s certificate in undergraduate piano

The Performer's Certificate in Undergraduate Piano is a special course of study designed for undergraduate students with outstanding musical and performance ability. The program is designed to allow students maximum time and flexibility to develop their performing ability while completing essential studies for a solid musical background. Candidates must have a high school diploma or equivalent and, through audition, must demonstrate potential for becoming a concert performer.

Admission requirements

- High school diploma (or equivalent)
- Audition demonstrating that prior experience and musical achievement provide potential for becoming a concert performer. (International students may audition by sending a DVD recording with excellent sound quality.)

Program Requirements

Students seeking the Performer’s Certificate in Undergraduate Piano must successfully complete 48 credits distributed as follows:

- MUA 340 - Applied Piano (Advanced Level for Performer's Certificate) (8)
- MUA 440 - Applied Piano (Advanced Level) (8)
- MUA 375 - Accompanying for Piano Majors (4)
- MUE 380 - Chamber Music (4)
- MUE 3XX - Ensembles (4)
- MUS 455 - Piano Repertoire I (2)
- MUS 457 - Piano Repertoire II (2)
- MUT 112 - Music Theory I (3) and MUT 113 - Aural Skills I (1)
- MUT 114 - Music Theory II (3) and MUT 115 - Aural Skills II (1)
- Electives (conducting, music history, organ, harpsichord, etc.) (8)

Non-credit requirement

- Two recitals

Requirements for the minors in music

Music, Liberal Arts Minor

The curriculum for the traditional liberal arts minor consists mainly of music classes intended for non-majors. Only a few of these classes can be used for major credit toward a bachelor's degree in music. This minor requires no audition. Students must complete a minimum of 24 credits in:

1. Sixteen credits in music history and theory selected from

- MUS 100 - An Introduction to Music (4)
- MUS 101 - What's On Your Playlist? Music Listening and the Self (4)
- MUS 102 - Exploring Technology in Music (4)
- MUS 105 - Foundations of Rock (4)
- MUS 106 - Exploring Film Music (4)
- MUS 107 - Exploring Jazz (4)
- MUS 110 - Exploring African Music (4)
- MUS 111 - Exploring Caribbean Music (4)
- MUS 220 - Computer-based Music Composition (4)
- MUS 225 - Song and Songwriting (4)
- MUT 111 - Basic Musicianship for Music Students (2)

2. Four credits applied music selected from

- MUA 150 - Vocal Techniques for Non-Majors (2)
- MUA 151 - Beginning Piano for Non-Majors (2)
- MUA 152 - Beginning Guitar for Non-Majors (2)
- Or voice or instrument at the 100 level, subject to acceptance by the applied instructor

3. Four credits of ensemble

- Any MUE course, subject to ensemble audition

Auditioned Minor

The curriculum for the auditioned minor consists mainly of classes intended for majors, making it possible to apply these courses to a bachelor's degree in music should the student choose to do so. This minor requires the same audition required of music majors. Students must complete a minimum of 25 credits in:

1. Minimum of 9 credits in music history

- MUS 131 - History and Literature of Western Tonal Music (3)
- MUS 132 - Music of World Cultures (3)

Plus one from

- MUS 100 - An Introduction to Music (4)
- MUS 101 - What's On Your Playlist? Music Listening and the Self (4)
- MUS 102 - Exploring Technology in Music (4)
- MUS 105 - Foundations of Rock (4)
- MUS 106 - Exploring Film Music (4)
- MUS 107 - Exploring Jazz (4)
- MUS 110 - Exploring African Music (4)
- MUS 111 - Exploring Caribbean Music (4)
- MUS 220 - Computer-based Music Composition (4)
- MUS 225 - Song and Songwriting (4)

2. Eight credits of music theory

- MUT sequence, level determined by placement exam

3. Minimum of 4 credits of applied music

- Two terms of 100-level applied lessons on the instrument with which the student performed the entrance audition

Voice students take

- MUA 160 - Vocal Techniques (2) and then
- MUA 100 - Voice (2)
- or
- MUA 161 - Vocal Techniques for Instrumentalists I (1) and MUA 162 - Vocal Techniques for Instrumentalists II (2)

4. Four credits of ensemble

- Any MUE course, subject to ensemble audition

Requirements for the minor in jazz studies

Entrance audition days are held several times each year. The audition schedule and downloadable application are available on the school website at www.oakland.edu/mtd. Please submit application to the department office. Students should be prepared to demonstrate proficiency in their proposed area of specialization.

Students seeking admission to Oakland University as music majors or auditioned music minors must audition for the music faculty.

Students who audition and do not enroll within two semesters must re-audition. Students who enroll and leave school for at least two semesters must re-audition. Music students who enroll and leave school must re-audition and also retake the theory placement exam.

The department offers a minor in jazz studies that is open to both music majors and non-majors who have had prior music performance experience and wish to study jazz. Non-music majors who wish to pursue the minor in jazz studies must audition. Contact the jazz program coordinator at 248-370-2805 or brown239@oakland.edu. Music majors who wish to pursue the minor in jazz studies should do so in consultation with the jazz coordinator and their applied music instructor.

The minor in jazz studies is designed to enhance the student’s ability to negotiate the theoretical, practical, cultural, and historical aspects of teaching and performing jazz as a musical art form. Students will study

the practices of past jazz masters and develop methods in order to sustain their own jazz education in addition to the education of current and future students. The minor will focus on refining performance and improvisational skills through private instruction, techniques for rehearsing small and large jazz ensembles, researching historical perspectives, and creating functional arrangements and compositions for both classroom and personal use.

Students must complete a minimum of 21 credits as follows:

Applied lessons - 4 credits

- MUA 1XX - Applied Lessons (Jazz) (2)
- MUA 2XX - Applied Lessons (Jazz) (2)

Ensembles - 4 credits

- MUE 340 - Oakland University Jazz Band (0 or 1) (2 credits total)
- MUE 341 - Jazz Improvisation Combos (0 or 1) (2 credits total)

Other required courses - 13 credits (or placement)

- MUS 107 - Exploring Jazz (4)
- MUS 406 - Jazz Pedagogy (1)
- MUT 314 - Jazz Theory and Improvisation I (2)
- MUT 315 - Jazz Theory and Improvisation II (2)
- MUT 416 - Jazz Composing and Arranging I (2)
- MUT 417 - Jazz Composing and Arranging II (2)

Non-credit requirements

- MUE 340 and 341 each must be taken a total of 4 semesters, with a minimum of 2 semesters each for credit.

Requirements for the minor in world music

Entrance auditions

The department offers a minor in world music that is open to both music majors and non-majors who have had prior music performance experience and wish to study world music. Non-music majors who wish to pursue the minor in world music must audition. Contact the world music program coordinator at 248-370-2044 or stone@oakland.edu.

The minor in world music is designed to enhance students' ability to negotiate the theoretical, practical, cultural, and historical aspects of teaching and performing traditions of world music. Students will study the practices of various world music traditions in order to sustain their own education in addition to the education of current and future students. The minor will focus on refining performance and improvisational skills through private instruction, world music ensembles, music history courses, and a summer study abroad/directed research.

Students must complete a minimum of 23 credits as follows:

Applied lessons - 4 credits

- MUA 125 - World Percussion (1 or 2)
- MUA 225 - World Percussion (1 or 2)
- MUA 325 - World Percussion (1 or 2)
- MUA 425 - World Percussion (1 or 2)

World music ensembles - 4 credits selected from

- MUE 345 - African Ensemble (0 OR 1)
- MUE 346 - Steel Band (0 OR 1)
- MUE 348 - World Percussion Ensemble (0 OR 1)
- DAN 140 - African Dance (0 OR 2)

Required courses - 7 credits

- MUS 132 - Music of World Cultures (3)
- MUS 425 - Critical Theory Methodologies in the Global Arts (4)

Elective option - 1 course selected from

- DAN 175 - Dance in American Culture (4)
- MUS 110 - Exploring African Music (4)
- MUS 111 - Exploring Caribbean Music (4)

Study abroad/research option - 1 course selected from

- IS 410 - Global Arts Study Abroad (4)
- IS 490 - Directed Research in International Studies (2 to 8)

Non-credit requirements

Non-credit requirements: World music ensembles - total of 8 semesters, minimum of 4 for credit

Individual lessons

- MUA 100 – Voice (1 or 2)
- Prerequisite(s): MUA 150, 160, 161 or 162 and permission of program coordinator.
- MUA 200 – Voice (1 or 2)
- MUA 300, 400 – Voice (1, 2, or 4)
- MUA 101,201 – Piano (1 or 2)
- Audition required. Please contact program coordinator before registering.
- MUA 301, 401 – Piano (1, 2 or 4)
- MUA 102, 202, 302, 402 – Organ (1 or 2)
- MUA 103, 203, 303, 403- Harpsichord (1 or 2)
- MUA 104, 204, 404 – Violin (1, 2 or 4)
- MUA 105, 205 – Viola (1 or 2)
- MUA 305, 405 – Viola (1, 2 or 4)
- MUA 106, 206 – Violoncello (1 or 2)
- MUA 306, 406 – Violoncello (1, 2 or 4)
- MUA 107, 207 - Double Bass (1 or 2)
- MUA 307, 407 - Double Bass (1, 2 or 4)
- MUA 108, 208 – Flute (1 or 2)
- MUA 308, 408 – Flute (1, 2 or 4)
- MUA 109, 209 – Oboe (1 or 2)
- MUA 309, 409 – Oboe (1, 2 or 4)
- MUA 110, 210 – Clarinet (1 or 2)
- MUA 310, 410 – Clarinet (1, 2 or 4)
- MUA 111, 211 – Bassoon (1 or 2)
- MUA 311, 411 – Bassoon (1, 2 or 4)
- MUA 112, 212- French Horn (1 or 2)
- MUA 312, 412- French Horn (1, 2 or 4)
- MUA 113, 213 – Trumpet (1 or 2)

- MUA 313, 413 – Trumpet (1, 2 or 4)
- MUA 114, 214 – Trombone (1 or 2)
- MUA 314, 414 – Trombone (1, 2 or 4)
- MUA 115, 215 – Tuba (1 or 2)
- MUA 315, 415 – Tuba (1, 2 or 4)
- MUA 116, 216 – Timpani (1 or 2)
- MUA 316, 416 – Timpani (1, 2 or 4)
- MUA 117, 217 – Percussion (1 or 2)
- MUA 317, 417 – Percussion (1, 2 or 4)
- MUA 118, 218 – Harp (1 or 2)
- MUA 318, 418 – Harp (1, 2 or 4)
- MUA 119, 219 – Guitar (1 or 2)
- MUA 319, 419 – Guitar (1, 2, or 4)
- MUA 120, 220, 320, 420 – Bass Guitar (1 or 2)
- MUA 320, 420 – Guitar (1, 2, or 4)
- MUA 124, 224 – Saxophone (1 or 2)
- MUA 324, 424 – Saxophone (1, 2 or 4)
- MUA 125, 225, 325, 425 - World Percussion (1 or 2)
- MUA 130, 230, 330, 430 - Piano (Jazz) (1 or 2)
- MUA 131, 231, 331, 431 - Guitar (Jazz) (1 or 2)
- MUA 137, 237, 337, 437 – Trombone (Jazz) (1 or 2)
- MUA 132, 232, 332, 432 - Trumpet (Jazz) (1 or 2)
- MUA 133, 233, 333, 433 - Saxophone (Jazz) (1 or 2)
- MUA 134, 234, 334, 434 - Percussion (Jazz) (1 or 2)
- MUA 135, 235, 335, 435 - Double Bass (Jazz) (1 or 2)
- MUA 136, 236 – Euphonium (1 or 2)
- MUA 336, 436 – Euphonium (1, 2 or 4)
- MUA 340 - Applied Piano (Advanced Level for Performer's Certificate)(4)
- (4) MUA 149, 249, 349, 449 - Applied Music (1 or 2)

GROUP LESSONS

MUA 100 – Voice (1-2)
Admission to music program through audition.

MUA 150 - Vocal Techniques for Non-Majors (2)
Introduction to the technique of singing geared to the non-major. Basic breath control, voice placement, and diction, with an emphasis on healthy voice production crossing musical styles.

MUA 151 - Beginning Piano for Non-Majors (2)
Introduction to basic keyboard skills, designed for students with little or no musical background.

MUA 152 - Beginning Guitar for Non-Majors (2)
Introduction to basic guitar, designed for students with little or no prior experience. Student must have access to a playable guitar.

MUA 153 - Intermediate Guitar for Non-Majors (2)
Playing guitar in small jazz, classical, and popular music ensembles. An extension of MUA 152. Student must own or have access to a playable guitar.
Prerequisite(s): completion of MUA 152 with a grade of 2.8 or higher or successfully passing a placement exam.

MUA 160 - Vocal Techniques (2)
Techniques of singing, including diction, breath control, projection and repertoire. This course is a prerequisite to private voice study.
Prerequisite(s): open to music and music theatre majors only.

MUA 161 - Vocal Techniques for Instrumentalists I (1)
Introduction to singing with emphasis on alignment, breath control, projection, basic anatomy of the voice, and voice health, including the speaking voice.

MUA 162 - Vocal Techniques for Instrumentalists II (2)
Continuation of the basic techniques of MUA 161 with more detailed attention to diction (International Phonetic Alphabet). Winter semester.
Prerequisite(s): MUA 161.

MUA 191 - Keyboard Technique I (2)
Development of the basic keyboard facility essential to any musician and some acquaintance with keyboard literature. May not be repeated for credit.
Prerequisite(s): open to music majors only.
Corequisite(s): MUT 112 or equivalent.

MUA 192 - Keyboard Technique II (2)
Development of the basic keyboard facility essential to any musician and some acquaintance with keyboard literature. May not be repeated for credit. Open to music majors only.
Prerequisite(s): MUA 191.
Corequisite(s): MUT 114 or equivalent.

MUA 250 - Instrumental Techniques for Choral Majors (2)
Introduction to the teaching of basic performance skills on band and orchestral instruments for students majoring in choral/general music education. Winter semester.

MUA 270 - Percussion Techniques (1)
Principles and practices of teaching percussion students in school music programs. Includes basic playing technique for teachers.

MUA 272 - Brass Techniques (1)
Principles and practices of teaching brass students in school music programs. Includes basic playing technique for teachers.

MUA 273 - Woodwind Techniques (1)
Principles and practices of teaching woodwind students in school music programs. Includes basic playing technique for teachers.

MUA 274 - String Techniques (1)
Principles and practices of teaching string students in school music programs. Includes basic playing technique for teachers.

MUA 291 - Keyboard Technique III (2)
Development of the basic keyboard facility essential to any musician and some acquaintance with keyboard literature. May not be repeated for credit. Open to music majors only.
Prerequisite(s): MUA 192 and MUT 114.

MUA 292 - Keyboard Technique IV (2)
Development of the basic keyboard facility essential to any musician and some acquaintance with keyboard literature. May not be repeated for credit. Open to music majors only.
Prerequisite(s): MUA 291.

MUA 340 - Applied Piano (Advanced Level for Performer's Certificate) (4)

MUA 345 - Vocal Coaching for Singers (1)
Studies to prepare the vocal student to perform in concert, recital, and musical theatre, including study of style, performance practices, diction, interpretation, and audition preparation. Includes preparation of musical theatre repertoire as well as art song literature appropriate to students' level of proficiency and accomplishment.
Prerequisite(s): MUA 100 and instructor permission.

MUA 375 - Accompanying for Piano Majors (2)
Accompanying for students whose major instrument is piano.

MUA 376 - Accompaniment Practicum (1 to 2)
Experience in piano accompaniment of solo and/or ensembles, vocal and instrumental. May be repeated for credit.
Prerequisite(s): MUA 375 or permission of instructor.

MUA 391 - Accompanying for the Non-pianist I (2)
Basic accompanying skills for the non-piano major. Designed for music majors who will need basic accompanying skills to function effectively in either the classroom or the private studio.
Prerequisite(s): MUA 292.

MUA 392 - Accompanying for the Non-pianist II (2)
Continuation of MUA 391.
Prerequisite(s): MUA 391.

MUA 443 - Keyboard Skills for the Piano Major I (2)
Functional skills for keyboard majors, including sight-reading, transposition, harmonization and score-reading.

MUA 444 - Keyboard Skills for the Piano Major II (2)
Continuation of MUA 443.
Prerequisite(s): MUA 443.

MUA 449 Applied Music (1 or 2)

MUA 499 - Senior Recital (4 or 6)
A recital approximately one hour in length (not including pauses and intermission) in which student demonstrates his/her creative and artistic abilities. Required in some music curricula as the culminating project before graduating, optional in others. Preparation for recital includes the applied lesson for the recital semester. Satisfies the general education requirement for the capstone experience.
Prerequisite(s): at least one semester of 400-level applied study.

MUSIC ENSEMBLE
Music ensembles are open to all students by audition. May be repeated for credit. Students may pre-register for the ensemble of their choice; auditions are held during the first week of classes for most ensembles.

MUE 301 - University Chorus (0 or 1)
Performance of a wide range of the large-group choral repertoire. No audition required.

MUE 304 - Oakland Chorale (0 or 1)
Performance of a wide range of choral chamber repertoire from Renaissance to the present.
Prerequisite(s): permission of instructor.

MUE 310 - Vocal Jazz Improvisation Workshop (0 or 1)
The stylistic requirements for singing in the jazz idiom. Topics include the analysis of established singers and styles, scat singing, jazz vocal production, microphone techniques, lyric interpretation, repertoire development, and arranging for a rhythm quartet.
Prerequisite(s): permission of instructor.

MUE 315 - Oakland Jazz Singers (0 or 1)
Ensemble performance of complex vocal jazz works. Development of jazz style and blend, scat-singing, solo production and microphone technique.
Prerequisite(s): permission of instructor.

MUE 319 – Chamber Orchestra (1)
Performance of chamber orchestra repertoire. Membership by audition. Prerequisite: permission of instructor.

MUE 320 - Oakland Symphony (0 or 1)
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. Graded S/U.
Prerequisite(s): permission of instructor.

MUE 329 - Symphonic Band (0 or 1)
A non-auditioned instrumental ensemble designed to offer performance opportunities for non-majors and laboratory experiences for music majors.

MUE 331 - Wind Symphony (0 or 1)
An ensemble of wind instruments performing standard concert band literature.
Prerequisite(s): permission of instructor.

MUE 332 - Golden Grizzly Athletic Band (0 or 1)
An instrumental ensemble that performs at various Oakland university campus and athletic events.

MUE 335 - Brass Band (0 or 1)
Ensemble of brass and percussion instruments performing standard brass band literature.

MUE 340 - Oakland University Jazz Band (0 or 1)
A big band jazz ensemble performing traditional and contemporary jazz literature. Experience will be gained in ensemble and improvisational performance. Audition required.

MUE 341 - Jazz Improvisation Combos (0 or 1)
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.

MUE 345 - African Ensemble (0 or 1)
Study and performance of drumming and xylophone traditions as related to African oral culture using authentic Ghanaian and Ugandan instruments.

MUE 346 - Steel Band (0 or 1)
Study and performance of various Trinidadian and Caribbean styles using handcrafted steel drums.

MUE 348 - World Percussion Ensemble (0 or 1)
Advanced study and performance of world percussion traditions.
Prerequisite(s): permission of the instructor. MUE 345 and 346 recommended.

MUE 350 - Opera Workshop (0 or 1)
Study and experience in various forms of operatic music theatre.
Prerequisite(s): sophomore standing.

MUE 355 – Opera (0 to 2)
Production and performance of a full-scale opera. Cast by audition.
Prerequisite(s): sophomore standing.

MUE 365 - Contemporary Music Ensemble (0 or 1)
Study and performance of recent music, focusing on newly composed music, alternative repertoire, and non-jazz improvisation.
Prerequisite(s): permission of instructor.

MUE 370 - Guitar Ensemble (0 or 1)
Performance practice and techniques of guitar literature involving two or more players.

MUE 371 - Saxophone Chamber Music (0 or 1)
Performance, practice and techniques of saxophone literature involving two or more players.

MUE 372 - Flute Ensemble (0 or 1)
Performance, practice and techniques of flute literature involving two or more players.

MUE 373 - Percussion Ensemble (0 or 1)
Performance of music for various combinations of percussion instruments.
Prerequisite(s): permission of instructor.

MUE 374 - Brass Ensemble (0 or 1)
Performance, practice and techniques of brass literature involving two or more players.

MUE 375 - Piano Ensemble (0 or 1)
Class instruction in performance and repertory of multiple keyboard literature.
Prerequisite(s): permission of instructor.

MUE 376 - String Ensemble (0 or 1)
Performance, practice and techniques of string literature involving two or more players.

MUE 380 - Chamber Music (0 to 2)
Performing ensemble of various instrumentations. A spectrum of appropriate music literature, medieval through contemporary.
Prerequisite(s): permission of instructor.

MUSIC HISTORY, LITERATURE, APPRECIATION AND EDUCATION

MUS 100 - An Introduction to Music (4)
An introduction to Western art music and its traditions, with emphasis on music listening as an active and intellectual experience. No prior knowledge of music notation or theory is required. Satisfies the university general education requirement in the arts knowledge exploration area.

MUS 101 - What's On Your Playlist? Music Listening and the Self (4)
Examination of culturally and historically diverse music as aesthetic expression of experience. Emphasis on relationships in sound as vehicles for deeper understanding of ourselves and others. Satisfies the university general education requirement in the arts musknowledge exploration area.

MUS 102 - Exploring Technology in Music (4)
Explore ways technology has transformed and continues to transform how people create, perform, listen to, and share music with others. Listen to, reflect on, and create music in an online setting to deepen understanding of the various dimensions of music and the ways technology shapes musicians' engagement with them. Satisfies the university general education requirement in the arts knowledge exploration area.

MUS 103 - Music, Culture and Western Civilization (4)
Examines selected historical events and developments in ideas and institutions through music as cultural expression. Satisfies the university general education requirement in the western civilization knowledge exploration area.

MUS 105 - Foundations of Rock (4)
A study of rock music rooted in African and African-American cultures as the result of social upheavals and economics and as a continuous and overwhelming influence on today's American society. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

MUS 106 - Exploring Film Music (4)
Survey of music written for film from the early sound films to recent contributions using the range of genres from symphonic to popular idioms. Emphasis on how music shapes a film's emotion, pacing and subtext. Satisfies the university general education requirement in the arts knowledge exploration area.

MUS 107 - Exploring Jazz (4)
Survey of jazz and blues styles, performers and examples, in the context of the historical, social, economic and political background. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

MUS 110 - Exploring African Music (4)
Study of music traditions in Africa and the African Diaspora, focusing on cultural context and the relationship of music to language, dance, ritual, and social activities. Satisfies the university general education requirement in the arts knowledge exploration area or in the global perspective knowledge exploration area, not both.

MUS 111 - Exploring Caribbean Music (4)
Study of the African-based music traditions found in the Caribbean Islands, South America and the United States. Emphasis on cultural context and the development of new musical forms by African-Americans. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

MUS 131 - History and Literature of Western Tonal Music (3)
Survey of Western tonal music from Monteverdi (ca. 1600) to Mahler (ca. 1900). Emphasis on active listening and analysis from scores. Satisfies the general education requirement in the arts knowledge exploration area.
Corequisite(s): MUT 112 and MUT 113.

MUS 132 - Music of World Cultures (3)
Study of music traditions from world cultures including Africa, the Caribbean, India, Indonesia, the Middle East and North America; also an introduction to the discipline of ethnomusicology.
Corequisite(s): MUT 112 or 114.

MUS 140 - Learning and Teaching Music (1)
Introduction to the learning and teaching of music in classroom settings.
Prerequisite(s): MUS 131, 132; MUT 114, 115. WRT 160 or equivalent with a grade of 3.0 or higher.

MUS 211 - Diction for Singers I (2)
Techniques for pronouncing foreign languages in singing. Focus on International Phonetic Alphabet (IPA), English, Italian, and Latin.

MUS 212 - Diction for Singers II (2)
Techniques for pronouncing foreign languages in singing. Focus on International Phonetic Alphabet (IPA), French, and German.
Prerequisite(s): MUS 211 or ML 211.

MUS 220 - Computer-based Music Composition (4)
Hands-on study of creative computer music composition in a variety of musical styles and genres. Creative concepts in composing introduced through the use of Digital Audio and MIDI interfacing through project-based activities. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area.
Prerequisite(s): any MUS course that has met the general education knowledge explorations requirement.

MUS 225 - Exploring Songwriting (4)
Analysis of a wide variety of songs and creation of students' own songs. Emphasis on free thinking and creativity within the student songwriting process. Ability to read music advantageous but not required. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area.
Prerequisite(s): one of the following: MUS 100, 101, 102, 105, 106, 107, 110, or 111.

MUS 240 - Educational Psychology and Music Learning (3)
Theories of learning and their implication for and application to music education practice, including study of developmentalist, behaviorist, cognitivist and constructivist theories and what they imply about the nature of teaching and learning in classroom and studio settings. Some field observation required.
Prerequisite(s): MUS 140.

MUS 241 - Elementary General Music Methods (3)
Principles and practices of teaching music, based on experiences in the elementary general music classroom. Emphasis on the development of musical understanding through an interactive, constructivist approach, including study of current trends in education and music education. Two hours per week participation in on-site field observation and teaching required.
Prerequisite(s): MUS 240.

MUS 295 - Independent Study (1 to 4)
Normally for freshmen and sophomores.
Prerequisite(s): permission of the music program.

MUS 318 - The Business of Music (4)
A survey of business techniques and procedures, laws, licensing and accounting practices in the music industry, and a study of career opportunities related to music.

MUS 331 - History and Literature of Medieval and Renaissance Music (3)
Survey of Western Music from the earliest notated plainchant to Monteverdi (ca. 1600). Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): MUS 131; MUT 114, MUT 115.

MUS 332 - History and Literature of Western Music from ca. 1850 to the Present (3)
Survey of Western Music from the time of Wagner to the present. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): MUS 131; MUT 114, MUT 115.

MUS 353 - Audio Techniques (2)
Study of electronic issues, basic hardware, and acoustical phenomena associated with sound recording and sound reinforcement. Projects will involve the recording of live concerts.

MUS 354 - The Recording Studio (2)
Continuation of MUS 353 and a study of recording, editing, mixing and mastering in a recording studio. The experience will conclude with the mastering of a CD.
Prerequisite(s): MUS 353.

MUS 395 - Conducting I (2)
Basic techniques of conducting. Both choral and instrumental techniques are studied. Students are assigned to a conducting or performance lab at least one hour per week.
Prerequisite(s): MUT 214, MUT 215.

MUS 396 - Conducting II (2)
Continuation of MUS 395.
Prerequisite(s): MUS 395.

MUS 398 - Instrumental Methods for Choral Majors (1)
Provides practical information related to the teaching of elementary instrumental music. Develops strategies for creative learning. Not open to students who have taken MUS 400. Prerequisite(s): MUS 241, MUT 214, MUT 215 and major standing in music education.

MUS 400 - Elementary Instrumental Methods (2)
Provides practical information related to the teaching of elementary instrumental music. Develops strategies for creative learning. Not open to students who have taken MUS 398.
Prerequisite(s): MUS 240, 332, MUT 214, 215; and major standing in music education.

MUS 404 - Secondary Instrumental Methods (2)
Provides practical information related to the teaching of middle school and high school instrumental music, e.g., teaching strategies, repertoire, materials and techniques. Emphasis on developing musical understanding through the performance experience. Three hours per week field experience is required.
Prerequisite(s): MUS 400, and major standing in music education.

MUS 405 - Marching Band Methods (1)
Provides practical information related to the organization and teaching of marching band. Topics include strategies and techniques for teaching, rehearsal, and student motivation. Introduction to show design and drill writing. Three hours per week field experience is required.
Prerequisite(s): MUS 240, MUS 332, MUT 214, MUT 215.

MUS 406 - Jazz Pedagogy (1)
Preparation for teaching the fundamentals of jazz theory, jazz history, basic improvisation, and jazz ensemble rehearsal techniques.

MUS 409 - Choral Methods for Instrumental Majors (1)
Introduction to theory and practice of teaching and learning in the choral classroom with emphasis on teaching for musical understanding. Topics include literature, score study, lesson planning, assessment, and reflective practice. Not open to students who have taken MUS 411.
Prerequisite(s): MUS 241, 332; MUT 214, 215 and major standing in music education.

MUS 412 - Choral Methods (3)
Introduction to theory and practice of teaching and learning in the choral classroom with emphasis on teaching for musical understanding. Topics include literature, score study, lesson planning, assessment, and reflective practice. 30-hour field placement required.
Prerequisite(s): MUS 241, 332; MUT 214, 215; and major standing in music education.

MUS 420 - The Nineteenth-Century Symphony: History, Performance and Analysis (4)
Nineteenth-century symphony from middle-period Beethoven to early Mahler. Aesthetics of absolute music and program music. Performance practice considered through historical recordings. Detailed analysis of selected examples. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): MUS 332, MUT 214, MUT 215.

MUS 423 - Berlin's Musical Cultures: 1900-1989 (4)
Examines intersections between political and social crises and twentieth-century music with a focus on Berlin. Satisfies the university general education requirement for the capstone experience. Prerequisite(s): MUS 331, 332, MUT 214, 215.

MUS 425 - Critical Theory Methodologies in the Global Arts (4)
Examines applications of critical theory to geographically and culturally diverse visual and performing arts.
Prerequisite(s): MUS 132 and one course selected from MUS 110, MUS 111, or DAN 175.

MUS 430 - Seminar in Opera and Drama (4)
Relationship between opera and drama, and the literary sources used by composers for such musical works, through an examination of a number of representative works in the opera repertory from 1600 to 1945. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): MUS 331, 332; MUT 214, 215.

MUS 431 - Teaching Music in the 21st Century I (3)
Philosophical basis of learning and musical learning, their roots, historical contexts, assumptions and implications for education and music education practice. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): major standing in music education.

MUS 432 - Teaching Music in the 21st Century II (3)
Application of theoretical ideas learned in MUS 431 in a secondary general music setting. Emphasis on the development of musical understanding through an interactive approach.
Prerequisite(s): MUS 431.

MUS 434 - Music for Exceptional Learners (4)
Teaching music to K-12 learners with exceptionalities. Includes 13 disabilities recognized for services, IDEA, Individualized Education Plan, Section 504, assistive technology, inclusion, self-determination, universal design, accommodations and curriculum modifications, Response to Intervention, collaboration in the school community, and music therapy. Some field observation required. Fulfills special education requirement for certification.
Prerequisite(s): MUS 240 with a grade of 3.0 or higher.

MUS 441 - Piano Pedagogy I (2)
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.
Prerequisite(s): permission of instructor.

MUS 442 - Piano Pedagogy II (2)
Instructional strategies for teaching the intermediate and advanced piano student, including methods, materials, repertoire and the use of music technology. Includes weekly observations and supervised teaching.
Prerequisite(s): MUS 441.

MUS 447 - Instrumental Teaching Studio (2)
Instructional strategies for teaching instrumental music in a private studio, including methods, materials, and music technology.
Prerequisite(s): junior standing.

MUS 455 - Piano Repertoire I (2)
Survey of piano repertoire from the baroque to classic (ca. 1600-ca. 1820).
Prerequisite(s): instructor permission.

MUS 456 - Choral Literature (2)
Study of choral literature from the Renaissance to the present. Examination of music from each period with emphasis on literature selection for choral groups, understanding and interpretation of the scores, historical accuracy in performance, and program building, with an overall eye toward practical usage.

MUS 457 - Piano Repertoire II (2)
Survey of piano repertoire from the classic to the present (ca. 1820 to the present).
Prerequisite(s): MUA 455, MUS 455 or permission of instructor.

MUS 461 - Vocal Repertoire I (2)
Survey of literature for the voice with emphasis on historical style. Covers the Middle Ages through the 19th century, with emphasis on German song.
Prerequisite(s): MUS 211 (may be taken concurrently).

MUS 462 - Vocal Repertoire II (2)
Survey of literature for the voice with emphasis on historical style. Covers 19th and 20th century music emphasizing French, British and American song.
Prerequisite(s): MUS 212 (may be taken concurrently), and MUS 461 or MUA 461.

MUS 463 - Instrumental Repertoire I (1)
Examination of instrumental repertoire with emphasis on chamber music, solo literature, and orchestral excerpts specific to the instrument of study.
Prerequisite(s): junior standing.

MUS 464 - Instrumental Repertoire II (1)
Continuation of MUS 463.
Prerequisite(s): MUS 481 or MUS 463.

MUS 480 - Advanced Choral Conducting (2)
Studies in advanced choral technique and literature with emphasis on problem solving and practical applications.
Prerequisite(s): MUS 396 or permission of instructor.

MUS 481 - Advanced Instrumental Conducting (2)
Studies in advanced instrumental technique and literature with emphasis on problem solving and practical applications.
Prerequisite(s): MUS 396 or permission of instructor.

MUS 495 - Independent Study (1 to 4)
Normally for juniors and seniors.
Prerequisite(s): permission of the music program.

MUS 497 - College Teaching Apprenticeship (2)
Supervised participation in teaching an undergraduate course in music, together with discussion of teaching methods and objectives.
Prerequisite: permission of instructor.

MUS 499 - Special Topics in Music (1 to 4)
Current topics and issues in music performance and literature.

MUSIC THEORY AND COMPOSITION

MUT 105 - Basic Musicianship for Musical Theatre Majors I (2)
Develops understanding of the elements of music and how they interact within musical works, to enable students who use music in musical theatre performance to develop sufficient understanding of music concepts to use music effectively in performance and grasp basic rudiments of reading written music, including melody, rhythm, chords.
Prerequisite(s): musical theatre majors only.

MUT 106 - Basic Musicianship for Musical Theatre Majors II (2)
Continuation of MUT 105.
Prerequisite(s): MUT 105. Musical theatre majors only.

MUT 109 - Basic Musicianship for Dancers (2)
Study of musical comprehension with particular focus on rhythm and sound organization and their relationship to physical impulse and response.

MUT 111 - Basic Musicianship for Music Students (2)
A study of traditional Western music notation systems, focusing on how those systems indicate to the performer the various elements of music. Emphasis on diatonic relationships within major and minor keys. Intended for the music major who needs remedial preparation for MUT 112.

MUT 112 - Music Theory I (3)
Fundamentals of musical structure, form, analysis and style. Intended for music majors. To be taken with MUT 113.
Prerequisite(s): MUT 111 or placement exam.

MUT 113 - Aural Skills I (1)
A laboratory experience to accompany MUT 112.
Prerequisite(s): MUT 111 or placement exam.

MUT 114 - Music Theory II (3)
Continuation of MUT 112. To be taken with MUT 115.
Prerequisite(s): MUT 112 and MUT 113 (or placement exam).

MUT 115 - Aural Skills II (1)
A laboratory experience to accompany MUT 114.
Prerequisite(s): MUT 112 and MUT 113 (or placement exam).

MUT 212 - Music Theory III (3)
Continuation of MUT 114.
Prerequisite(s): MUT 114 and MUT 115 (or placement exam).

MUT 213 - Aural Skills III (1)
Laboratory experience to accompany MUT 212.
Prerequisite(s): MUT 114 and 115 (or placement exam).

MUT 214 - Music Theory IV (3)
Continuation of MUT 213.
Prerequisite(s): MUT 212 and MUT 213 (or placement exam).

MUT 215 - Aural Skills IV (1)
A laboratory experience to accompany MUT 214.
Prerequisite(s): MUT 212 and MUT 213 (or placement exam).

MUT 260 - Creative Composition I (2)
Techniques for composing original music including approaches to conceptualization, form, texture, melody, harmony and counterpoint. Skills will be developed in music notation, synthesizers, sequences and computer software. Frequent composition projects will be assigned and performed in class.

MUT 261 - Creative Composition II (2)
Continuation of MUT 260.
Prerequisite(s): MUT 260.

MUT 311 - Musical Analysis and Form (4)
Techniques of analyzing works of various styles and periods with an emphasis on tonal music.
Prerequisite(s): MUT 214, MUT 215.

MUT 312 – Counterpoint (4)
Study of the contrapuntal style of the 17th and 18th centuries; includes composition and analysis in the styles.
Prerequisite(s): MUT 214, 215.

MUT 314 - Jazz Theory and Improvisation I (2)
Introduction to jazz theory and improvisation concepts, including the modes of the major scale, historical jazz language practices, analysis of transcribed solos, ear training and basic jazz piano techniques.

MUT 315 - Jazz Theory and Improvisation II (2)
Continuation of MUT 314.
Prerequisite(s): MUT 314 or permission of instructor.

MUT 410 - Analysis of Music Since 1900 (4)
Compositional and analytical techniques for music of the 20th and 21st centuries.
Prerequisite(s): MUT 214, 215.

MUT 411 – Orchestration (4)
A study of the art of instrumental combination as applied to various ensemble applications, including full orchestra and band.
Prerequisite(s): MUT 214.

MUT 415 – Composition (2)
Private lessons in composition and composition laboratory: studies, exercises and projects concerning creativity and craft in composing music. Weekly seminar is also required. May be repeated for credit.
Prerequisite(s): Composition majors: MUT 114, 115 with average grade of 3.5 or higher. Non-composition majors: MUT 114, 260, 261 with average grade of 3.50 or higher.

MUT 416 - Jazz Composing and Arranging I (2)
Composing and arranging technique for small jazz ensembles, including study of jazz notational systems, lead sheet creation, engraving and orchestration for small ensembles.
Prerequisite(s): MUT 315 or permission of instructor.

MUT 417 - Jazz Composing and Arranging II (2)
Composing and arranging techniques for large jazz ensembles, including study of typical big band writing, formal structure, and contemporary trends in large ensemble writing.
Prerequisite(s): MUT 416.

INTERDISCIPLINARY PERFORMING ARTS

MTD 301 - Performing Arts Experiences for Children (3)
Introduction to the performing arts designed to provide prospective teachers with a basis and background for integrating musical, theatrical, and dance experiences into classroom curricula. Prerequisite(s): major standing

THEATRE PROGRAM

Admission to the Theatre Degree programs

Admission to the theatre degree programs at Oakland University (OU) is a two-tiered process. The first step in the process for all students is the entrance audition. These auditions are held several times a year and determine whether or not a student will be admitted to OU in any of these degree programs. The second step is the major standing audition, which determines whether students may continue in the program, and which degree program they may pursue.

Entrance Auditions

Entrance audition days are held several times each year. The audition schedule and downloadable application are available on the department website at oakland.edu/mtd. Please submit application to the department office. Students should be prepared to demonstrate proficiency in their proposed area of specialization.

- Students seeking admission to Oakland University as acting and musical theatre majors must audition for the theatre faculty.
- Students seeking admission to Oakland University as theatre design and technology majors must participate in a portfolio interview with the theatre faculty.
- Students who audition and do not enroll within two semesters must re-audition.
- Students who enroll and leave school for at least two semesters must re-audition.

Requirements for the liberal arts major in theatre, B.A. program

This degree programs requires a minimum of 124 credits distributed as follows:

Theatre requirements - 44 credits

- THA 101 - Foundations of Theatre (2)
- THA 110 - Acting: The Instrument (2)
- THA 111 - Acting: The Script (2)
- THA 120 - Stagecraft (2) or THA 121 - Costume Craft (2) or THA 123 - Costume Construction (2)
- THA 124 - Elements of Design (2)
- THA 301 - Theatre History I (4) (satisfies general education arts requirement)
- THA 302 - Theatre History II (4)
- THA 330 - Stage Management (2)
- ENG 105 - Introduction to Shakespeare (4) or ENG 306 - Drama (4) (satisfies general education literature requirement)

Design course - 1 course selected from

- THA 320 - Scenic Design (4)
- THA 321 - Lighting Design (4)
- THA 322 - Costume Design (4)
- THA 324 - Survey of Architecture, Fashion, and Furniture (4)
- THA 325 - Costume History (4)

Theatre capstone - 4 credits minimum selected from

- THA 407 - Advanced Directing Project (2)
- THA 420 - Advanced Performance Projects (0 or 2)
- THA 425 - Advanced Design and Technology Projects (2)

- THA 482 - Classical Theatre Study in Greece (4)
- THA 491 - Internship (2 or 4)
- THA 495 - Company Class (2 or 4)

Theatre elective courses - 12 credits

Chosen in consultation with the theatre adviser (may include DAN technique, MUA/MUE voice, SA or AH classes; THA 100 excluded)

Non-credit requirements

- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the major in acting, B.F.A. program

Acting requirements - 72 credits

- THA 101 - Foundations of Theatre (2)
- THA 110 - Acting: The Instrument (2)
- THA 111 - Acting: The Script (2)
- THA 310 - Acting: The Role (2)
- THA 312 - Acting: Shakespeare (2)
- THA 120 - Stagecraft (2)
- THA 121 - Costume Craft (2) or THA 123 - Costume Construction (2)
- THA 124 - Elements of Design (2)
- THA 216 - Stage Combat I (2)
- THA 217 - Stage Voice I and II (2)
- THA 218 - Stage Voice I and II (2)
- THA 311 - Stage Dialects (2)
- THA 301 - Theatre History I (4) (satisfies general education arts requirement)
- THA 302 - Theatre History II (4)
- THA 323 - Stage Makeup (2)
- THA 330 - Stage Management (2)
- THA 331 - Stage Manager Project (2)
- THA 405 - Directing I (2)
- THA 406 - Directing II (2)
- THA 410 - Acting: Styles (2)
- THA 412 - Acting: Auditions (2)
- ENG 105 - Introduction to Shakespeare (4) or ENG 306 - Drama (4) (satisfies general education literature requirement)
- Any dance (DAN) technique course (2)

Movement courses - 2 courses selected from

- THA 211 - Stage Movement (2)
- THA 213 - Mime (2)
- THA 214 - Alexander Technique (2)
- THA 316 - Stage Combat II (2)
- THA 416 - Stage Combat III (2)
- Any DAN technique course (2)

Theatre capstone - 4 credits minimum selected from

- THA 407 - Advanced Directing Project (2)
- THA 420 - Advanced Performance Projects (0 OR 2)
- THA 425 - Advanced Design and Technology Projects (2)
- THA 482 - Classical Theatre Study in Greece (4)
- THA 491 - Internship (2 OR 4)
- THA 495 - Company Class (2 OR 4)

Theatre electives - 12 credits

Elective courses chosen in consultation with theatre adviser (may include DAN technique, MUA/MUE voice classes; THA 100 excluded).

Non-credit requirements

- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the major in musical theatre, B.F.A. program

Musical theatre requirements - 74-80 credits (with placement)

- THA 101 - Foundations of Theatre (2)
- THA 110 - Acting: The Instrument (2)
- THA 111 - Acting: The Script (2)
- THA 112 - Acting: The Song (2)
- THA 310 - Acting: The Role (2)
- THA 312 - Acting: Shakespeare (2)
- THA 120 - Stagecraft (2) or THA 121 - Costume Craft (2) or THA 123 - Costume Construction (2)
- THA 217 - Stage Voice I and II (2)
- THA 301 - Theatre History I (4) or THA 302 - Theatre History II (4) (satisfies general education arts requirement)
- THA 305 - History of American Musical Theatre (4)
- THA 323 - Stage Makeup (2)
- THA 351 - Musical Theatre Workshop (0 OR 1)
- THA 412 - Acting: Auditions (2)
- THA 413 - Musical Theatre Singing Styles (2)
- MUA 160 - Vocal Techniques (2)
- MUT 105 - Basic Musicianship for Musical Theatre Majors I (2)
- MUT 106 - Basic Musicianship for Musical Theatre Majors II (2)
- MUA 345 - Vocal Coaching for Singers (1) (8 credits, one per semester, or placement)
- DAN 373 - Dance for Musical Theatre (2)
- Additional dance technique classes (7 semesters, 14 credits, or placement)

Applied voice - 11 credits (or placement)

- MUA 100 - Voice (3) (2 semesters, 3 credits)
- MUA 200 - Voice (1 or 2) (2 semesters, 4 credits)
- MUA 300 - Voice (1, 2, or 4) (2 semesters, 4 credits)

Vocal ensemble - 1 credit selected from

- MUE 350 - Opera Workshop (1)
- THA 351 - Musical Theatre Workshop (0 OR 1)
- THA 451 - Nightclub Cabaret Acts (0 OR 1)

Theatre capstone - 3 credits minimum selected from

- THA 407 - Advanced Directing Project (2)
- THA 420 - Advanced Performance Projects (2)
- THA 425 - Advanced Design and Technology Projects (2)
- THA 482 - Classical Theatre Study in Greece (4)
- THA 491 - Internship (2 OR 4)
- THA 495 - Company Class (2 OR 4)

Theatre elective courses - 4 credits

Chosen in consultation with theatre adviser (may include DAN technique, MUA/MUE voice classes; THA 100 excluded)

Non-credit requirements

- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the major in theatre design and technology, B.F.A. program

Theatre Design and Technology Requirements - 74 credits

- THA 101 - Foundations of Theatre (2)
- THA 104 - Acting for Non-Theatre Majors (2) or THA 110 - Acting: The Instrument (2)
- THA 120 - Stagecraft (2)
- THA 121 - Costume Craft (2) or THA 123 - Costume Construction (2)
- THA 124 - Elements of Design (2)
- THA 125 - Essentials of Theatre Design (2)
- THA 222 - Drafting for the Theatre (2)
- THA 223 - Drawing and Rendering for the Theatre (2)
- THA 301 - Theatre History I (4) (satisfies general education arts requirement)
- THA 302 - Theatre History II (4)
- THA 324 - Survey of Architecture, Fashion, and Furniture (4)
- THA 325 - Costume History (4)
- THA 330 - Stage Management (2)
- THA 331 - Stage Manager Project (2)
- THA 405 - Directing I (2)
- THA 421 - Design Seminar (2)
- THA 422 - Designer's Portfolio (2)
- SA xxx - Studio Art course (4)

Design courses - 16 credits

- THA 320 - Scenic Design (4)
- THA 321 - Lighting Design (4)
- THA 322 - Costume Design (4)

- Note: one course must be repeated

Theatre capstone - 4 credits minimum selected from

- THA 407 - Advanced Directing Project (2)
- THA 420 - Advanced Performance Projects (2)
- THA 425 - Advanced Design and Technology Projects (2)
- THA 482 - Classical Theatre Study in Greece (4)
- THA 491 - Internship (2 or 4)
- THA 495 - Company Class (2 or 4)

Theatre electives - 8 credits

Theatre electives, chosen in consultation with theatre adviser (may include SA or AH classes; excludes THA 100)

Non-credit requirements

- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the liberal arts minor in theatre

To earn a minor in theatre, students must complete a minimum of 20 credits distributed as follows:

1. Foundations course (2 credits)

- THA 101 - Foundations of Theatre (2)

2. One acting course (2 credits) selected from

- THA 104 - Acting for Non-Theatre Majors (2)
- THA 110 - Acting: The Instrument (2) (with permission of instructor)

3. One production course (2 credits) selected from

- THA 120 - Stagecraft (2)
- THA 121 - Costume Craft (2)
- THA 123 - Costume Construction (2)

4. One theatre history course (4 credits) selected from

- THA 301 - Theatre History I (4)
- THA 302 - Theatre History II (4)
- THA 305 - History of American Musical Theatre (4)
- THA 306 - Cultural and Historical Development of American Musical Theatre (4)

5. Ten elective credits in theatre

Note: THA 100 does not apply.

COURSE DESCRIPTIONS

THA 100 - Introduction to Theatre (4)
Theatre as an art form. Topics include acting, directing, design, dramatic literature, theatre history, theory and criticism. Students will view selected plays. Satisfies the university general education requirement in the arts knowledge exploration area.

THA 101 - Foundations of Theatre (2)
Foundation course for theatre majors and minors. Lectures, readings and projects exploring the nature of theatre, its literature in historical context, and the opportunities and responsibilities of members in an artistic community.
Prerequisite(s): theatre major or minor.

THA 104 - Acting for Non-Theatre Majors (2)
Acting experiences designed for non-theatre majors. The student will acquire basic acting skills, explore vocal and physical expressiveness, and gain confidence in performance settings.

THA 110 - Acting: The Instrument (2)
Prepares the actors' instrument for work on stage. Student actors discover their unique physical, vocal and emotional gifts and develop a respect for acting as a collaborative art.
Prerequisite(s): instructor permission.

THA 111 - Acting: The Script (2)
The actor's approach to script analysis. Focus on acquisition of an acting vocabulary, research methods, continued vocal and physical development, and basic audition techniques.
Prerequisite(s): THA 110; or THA 104 and instructor permission.

THA 112 - Acting: The Song (2)
Techniques for interpreting lyrics, connecting to the character being addressed, committing to the circumstances, making strong movement choices, using the voice to maximum effect. Assist the singer in analyzing songs, show how to develop characters building on material in the score, give the singing performer tools to act believably.
Prerequisite(s): musical theatre major.

THA 120 – Stagecraft (2)
Survey of techniques of scenery construction and stage lighting, including proper use of tools and hardware in these areas.
Prerequisite(s): theatre major or minor or permission of instructor.

THA 121 - Costume Craft (2)
Introduction to basic techniques of costume crafts. Various techniques such as dying, fabric stenciling, jewelry, mask making and puppet sculpting will be explored.
Prerequisite(s): theatre major or permission of instructor.

THA 123 - Costume Construction (2)
Exploration of techniques for basic costume construction, including hand and machine sewing, dressmaking, and use of fabric.
Prerequisite(s): theatre major or minor or permission of instructor.

THA 124 - Elements of Design (2)
Introduction to basic principles of design and their application to the art of theatre.
Prerequisite(s): theatre major or permission of instructor.

THA 125 - Essentials of Theatre Design (2)
Broad overview of the theatrical design process in each of the disciplines: scenic, costume, lights, sound, properties, hair and makeup. Introduction of terminology, design concepts, research and collaboration within the theatrical medium.
Prerequisite(s): THA 124 and theatre major.

THA 211 - Stage Movement (2)
Exploring character and relationship through physical action. Discovering idiosyncrasies and neutrality. Preference for openings in this course is given to theatre majors and minors.
Prerequisite(s): THA 110 or permission of instructor.

THA 213 – Mime (2)
Basic mime techniques for the actor, including imaginary objects, movement illusions, environment illusions, and useful skills for the actor's imagination.
Prerequisite(s): theatre major or minor or permission of instructor.

THA 214 - Alexander Technique (2)
Technique for achieving greater ease and grace of movement, with special applications for the performing artist.
Prerequisite(s): studio course in acting, dance, voice, or instrumental music. May be taken concurrently.

THA 215 - T'ai Chi Ch'uan (2)
Learning the first section of the Yang style form, students will increase their awareness of current movement habits and learn how to replace old habits with those that allow greater ease of movement, requiring less effort and muscular tension.

THA 216 - Stage Combat I (2)
Safe methods of creating the illusion of violence on stage. Hand to hand and basic sword work.
Prerequisite(s): theatre major or permission of instructor.

THA 217 - Stage Voice I (2)
Development of actors' understanding and command of voice and speech for the stage. Preference for openings in this course is given to theatre majors and minors.
Prerequisite(s): THA 110 or instructor permission.

THA 218 - Stage Voice II (2)
Continuation of THA 217.
Prerequisite(s): THA 217.

THA 220 - Theatre Ensemble (0 or 2)
Participation in a production under faculty supervision. A minimum of 60 hours. Credit is available for on-stage and backstage work. May be repeated.

THA 222 - Drafting for the Theatre (2)
Study of the visual tools of scenic presentation: drafting, sketching, and perspective. Focus on principles and techniques of theatre drafting of ground plans, scenery and lighting. An introduction to computer-assisted drafting will be included.
Pre/Corequisite(s): THA 124.

THA 223 - Drawing and Rendering for the Theatre (2)
Study of the presentational skills of theatrical design. Focus on the development of skills and techniques in drawing and rendering for scenery, costumes and lighting.
Pre/Corequisite(s): THA 124.

THA 301 - Theatre History I (4)
Survey of theatre from its origins to about 1700, including dramatists, stages, production and acting. Representative plays will be read. Mandatory attendance at selected live performances. May include student participation in brief performance projects. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or in the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): sophomore standing.

THA 302 - Theatre History II (4)
Survey of theatre from about 1700 to the present, including dramatists, stages, production, and acting. Representative plays will be read. Mandatory attendance at selected live performances. May include student participation in brief performance projects. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or in the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): sophomore standing.

THA 305 - History of American Musical Theatre (4)
Focuses on dramatic themes, musical styles, dance innovations and the artistic elements of American Musical Theatre while exploring the artists, producers and audiences that reflected the changing viewpoints, beliefs and lifestyles of the nation.
Prerequisite(s): sophomore standing.

THA 306 - Cultural and Historical Development of American Musical Theatre (4)
Course for non-majors that focuses on dramatic themes, musical styles, dance innovations and the artistic elements of American Musical Theatre while exploring the artists, producers and audiences that reflected the changing viewpoints, beliefs and lifestyles of the nation. Not open to students who have completed THA 305. THA 306 may not be used toward the musical theatre major. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. Diversity. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): sophomore standing.

THA 310 - Acting: The Role (2)
Actors' synthesis of instrument and script as applied to creation of a role. Scene work drawn from significant plays in the realism repertoire. May be repeated once for credit.
Prerequisite(s): THA 111.

THA 311 - Stage Dialects (2)
Study of several of the stage dialects most commonly employed by American actors. Methodology for independent mastery of additional dialects.
Prerequisite(s): THA 111.

THA 312 - Acting: Shakespeare (2)
Introduction to understanding and speaking Shakespeare's language. Scene and monologue work for select plays.
Prerequisite(s): THA 310.

THA 313 - Coaching for Actors (1)
Prepares the acting student for performance, on-camera work, and monologue exploration, including study of style, performance practices, diction, interpretation, and audition preparation. Includes preparation of play repertoire appropriate to student level of proficiency and accomplishment. Course may be repeated for credit.
Prerequisite(s): junior or senior standing and instructor permission.

THA 316 - Stage Combat II (2)
Advanced methods of creating the illusion of violence on stage. Progression to rapier and dagger, broadsword and quarterstaff.
Prerequisite(s): THA 216.

THA 320 - Scenic Design (4)
Study of the process of designing scenery for the stage, including conceptualization, drafting and rendering. May be repeated once for credit.
Prerequisite(s): THA 124. THA 222, 223 strongly recommended.

THA 321 - Lighting Design (4)
Study of the process of designing lighting for theatre and dance, including conceptualization, instrumentation, plotting, hanging and focusing, cueing and board operation. May be repeated once for credit.
Prerequisite(s): THA 124. THA 222 recommended.

THA 322 - Costume Design (4)
A study of the process of designing costumes for the stage, including research, conceptualization, materials, and rendering. May be repeated once for credit.
Prerequisite(s): THA 124. THA 223 strongly recommended.

THA 323 - Stage Makeup (2)
A study of the process of designing makeup for the stage, including conceptualization, materials and application of two-dimensional designs.
Prerequisite(s): theatre major or minor or permission of instructor.

THA 324 - Survey of Architecture, Fashion, and Furniture (4)
Survey of the time periods most often used in theatrical productions. Each era will be considered through the architecture, fashion and furniture of the time. Connections will be made to the politics, music, art and literature of the era.
Prerequisite(s): sophomore standing.

THA 325 - Costume History (4)
Methods and styles of human dress from the Bronze Age to the present, including the roles of textiles and fibers and the importance of human decoration of clothing, skin, and hair. Several traditional ethnic cultures will be explored along with Western dress. Visual examples will be provided.
Prerequisite(s): sophomore standing.

THA 326 - Properties Practicum (2)
Exploring properties production for the stage including construction, upholstery, and sewing as well as the organizational and artistic skills required by the properties artisan.
Prerequisite(s): THA 120.

THA 327 - Scene Painting (2)
Techniques for painting scenery for the theatre including material, layout, faux finishes, and the organizational and artistic skills required for the scenic artist.
Prerequisite(s): THA 120.

THA 328 - Sound Design (2)
Study of the process of designing sound for the theatre, including the equipment and mechanics. Topics include music, sound effects, recording techniques, and amplification. Course may be repeated one time for a total of four credits.

THA 330 - Stage Management (2)
Study of the duties and the organizational, communication and leadership skills required of the theatrical stage manager.

THA 331 - Stage Manager Project (2)
Student will serve as a stage manager or assistant stage manager for a departmental production under faculty supervision.
Prerequisite(s): THA 330.

THA 340 – Playwriting (4)
Creative writing for the theatre, emphasizing fundamentals of scene, character and dialogue development. Identical with ENG 308.
Prerequisite(s): WRT 160 or RHT 160 with a grade of 2.0 or higher

THA 351 - Musical Theatre Workshop (0 or 1)
Performance and study of repertory of the musical theatre. May be repeated for additional credit.
Prerequisite(s): MUA 100.

THA 405 - Directing I (2)
Theory and practice of play directing. Script interpretation, casting, staging, rehearsal techniques. Includes practical experience in directing scenes.
Prerequisite(s): THA 104 or THA 110; and THA 120 or THA 121 or THA 123; and THA 124 and major standing.

THA 406 - Directing II (2)
Continuation of Directing I. Culminates in the direction of a one-act play.
Prerequisite(s): THA 405.

THA 407 - Advanced Directing Project (2)
Direction of a lengthy one-act or full-length theatre piece under faculty supervision. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): THA 406 and permission of instructor.

THA 410 - Acting: Styles (2)
Focuses on the requirement of various acting and period styles. Continued work on vocal and physical technique. Topics may vary. May be repeated once for credit.
Prerequisite(s): THA 310.

THA 412 - Acting: Auditions (2)
Preparation for theatrical and commercial auditions. Includes selection and preparation of monologues.
Prerequisite(s): THA 310.

THA 413 - Musical Theatre Singing Styles (2)
Focuses on the requirements of various singing styles and composers, including operetta, Sondheim, classical musical theatre, pop and contemporary. Students will learn to adapt to various singing styles, build an audition repertoire notebook and be able to discern among styles.
Prerequisite(s): THA 305 and junior standing.

THA 416 - Stage Combat III (2)
Continuation of Combat I and II focusing on the skills needed to design and choreograph theatrical text-based fight sequences, effectively collaborate as a fight director within a production team, and manage a career as a fight director/choreographer.
Prerequisite(s): THA 316.

THA 420 - Advanced Performance Projects (0 or 2)
Participation in a production under faculty direction. A minimum of 60 hours. Students keep a journal and write a final summary of their experience. May be repeated three additional times for credit. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): Junior or senior standing and major standing in theatre.

THA 421 - Design Seminar (2)
Advanced studies in theatre design of scenery, costumes and lighting, with an emphasis on the collaborative process. Career opportunities and preparation are addressed.
Prerequisite(s): THA 320, 321 or 322.

THA 422 - Designer's Portfolio (2)
Advanced designers prepare portfolio and resumes for entry into the professional field of theatre production.
Prerequisite(s): THA 320 and THA 321 or THA 322 and sophomore standing.

THA 423 - Advanced Stagecraft (2)
Advanced techniques of scenery construction including welding, rigging, sound and special effects
Prerequisite(s): THA 120.

THA 425 - Advanced Design and Technology Projects (2)
Advanced student design projects produced under faculty supervision in the areas of scenery, costumes, lighting, properties, or sound. May be repeated for credit. Satisfies the university general education requirement for the capstone experience.

THA 440 - Advanced Playwriting (4)
Continued work on playwriting leading to complete scripts for one-act and full-length plays. May be repeated once for credit. Identical with ENG 412.
Prerequisite(s): THA 340 or ENG 308; permission of instructor. English and theatre majors and minors.

THA 451 - Nightclub Cabaret Acts (0 or 1)
The art of cabaret and preparation of a personal evening of song and stories. Presentation of these acts by Meadow Brook Estate at a local nightclub. Auditions held prior to the beginning of the semester. May be repeated for additional credit.
Prerequisite(s): permission of instructor.

THA 452 - BFA Musical Theatre Showcase (0 or 1)
Students prepare and polish audition materials, learn interview techniques, and other important skills required for the showcase presented for professionals in New York City. BFA musical theatre majors (seniors) only. Auditions held prior to the beginning of the semester.
Prerequisite(s): permission of instructor.

THA 460 - Special Topics: History and Literature of the Theatre (2 or 4)
Study of topics of special interest chosen by department faculty and students. May be repeated.
Prerequisite(s): Will vary with topic; permission of instructor.

THA 470 - Special Topics: Design Issues (2 or 4)
Group study of topics of special interest chosen by theatre program faculty and students. May be repeated.
Prerequisite(s): Will vary with topic.

THA 480 - Special Topics: Acting and Directing Issues (2 or 4)
Group study of topics of special interest chosen by theatre program faculty and students. May be repeated.
Prerequisite(s): Will vary with topic; permission of instructor.

THA 482 - Classical Theatre Study in Greece (4)
Study, rehearse and perform a classical play in amphitheaters in Greece. Acting, voice, movement, modern Greek and theatre history. Visits to archeological sites and museums. Dates vary (3 weeks, June/July). English is the language of instruction/performance. Additional fees apply. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): audition/interview required, conducted early winter semester prior. Consult Theatre Program Director.

THA 490 - Independent Study (1 to 4)
Normally for juniors and seniors.
Prerequisite(s): permission of instructor and the theatre program.

THA 491 – Internship (2 or 4)
Experience working with professionals in a variety of performing arts settings. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor.

THA 495 - Company Class (2 or 4)
Close study of a selected play and rehearsal leading to a fully mounted laboratory production as the final product. Intended for juniors and seniors only. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor, by audition.

Dance Program

Admission to the dance degree programs

Admission to the dance degree programs at Oakland University (OU) is a two-tiered process. The first step in the process for all students is the entrance audition. These auditions are held several times a year and determine whether or not a student will be admitted to OU in any of these degree programs. The second step is the major standing audition, which determines whether students may continue in the program, and which degree program they may pursue.

Entrance auditions

Entrance audition days are held several times each year. The audition schedule and downloadable application are available on the department website at oakland.edu/dance. Please submit application to the department office. Students should be prepared to demonstrate proficiency in their proposed area of specialization.

- Students seeking admission to Oakland University as dance majors must audition for the dance faculty.
- Students who audition and do not enroll within two semesters must re-audition.
- Students who enroll and leave school for at least two semesters must re-audition.

This degree is for students who wish a broad general education without a high degree of specialization in dance. Students must successfully complete the performance production requirement, the events attendance requirement and the senior interview as described in the department's Undergraduate Dance Handbook available on the department website, oakland.edu/dance. Students should consult with the departmental adviser in the College of Arts and Sciences Advising Office to plan their degree program. Only major courses in which a grade of at least 2.0 has been earned will count towards the major. These degree programs require a minimum of 124 credits.

Requirements for the liberal arts major in dance, B.A. program

Dance requirements - 74 credits (or placement)

Two semesters of each of the following:

- DAN 100 - Ballet (2)
- DAN 200 - Ballet (2)
- DAN 300 - Ballet (2)
- DAN 110 - Modern Dance (3)
- DAN 210 - Modern Dance (3)
- DAN 310 - Modern Dance (3)

Additional requirements

- DAN 130 - Conditioning For Dance (1) (or DAN 131 or DAN 132)
- DAN 170 - Dance Improvisation/Choreography I (2)
- DAN 173 - Dance History and Appreciation (4)
- DAN 240 - Dance Production (2)
- DAN 270 - Choreography II (4)
- DAN 330 - Kinesiology for the Dancer (4)
- DAN 350 - Creative Dance for Children (4)

- DAN 370 - Choreography III (4)
- DAN 380 - Contemporary Dance History: Revolution and Revisionism (4)
- DAN 425 - Issues and Trends in Dance (2)
- DAN 428 - Opportunities and Careers in Dance (2)
- DAN 441 - Dance Pedagogy (4)
- MUT 109 - Basic Musicianship for Dancers (2)

Five credits selected from

- DAN 376 - Oakland Dance Theatre (0 or 1)
- DAN 475 - Repertory Dance Company (0 or 1)
- DAN 498 - Apprenticeship (0 to 4)

Non-credit requirements

- Freshman Seminar
- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the major in dance, B.F.A. program

Dance Requirements - 92 credits (or placement)

Two semesters of each of the following (or placement)

- DAN 100 - Ballet (2)
- DAN 200 - Ballet (2)
- DAN 300 - Ballet (2)
- DAN 400 - Ballet (2)
- DAN 110 - Modern Dance (3)
- DAN 210 - Modern Dance (3)
- DAN 310 - Modern Dance (3)
- DAN 410 - Modern Dance (3)

Required courses

- DAN 130 - Conditioning For Dance (1) (or DAN 131 or DAN 132)
- DAN 170 - Dance Improvisation/Choreography I (2)
- DAN 173 - Dance History and Appreciation (4)
- DAN 240 - Dance Production (2)
- DAN 270 - Choreography II (4)
- DAN 330 - Kinesiology for the Dancer (4)
- DAN 350 - Creative Dance for Children (4)
- DAN 370 - Choreography III (4)
- DAN 380 - Contemporary Dance History: Revolution and Revisionism (4)
- DAN 425 - Issues and Trends in Dance (2)
- DAN 428 - Opportunities and Careers in Dance (2)
- DAN 441 - Dance Pedagogy (4)
- DAN 470 - Senior Recital (2)
- DAN 471 - Senior Recital II (2)

- MUT 109 - Basic Musicianship for Dancers (2)
- THA 104 - Acting for Non-Theatre Majors (2)

Seven credits from the following courses

- DAN 376 - Oakland Dance Theatre (0 or 1)
- DAN 475 - Repertory Dance Company (0 or 1)
- DAN 498 - Apprenticeship (0 to 4)

Non-credit requirements

- Freshman Seminar
- Major standing
- Senior interview
- Performance production requirement
- Events attendance requirement

Requirements for the liberal arts minor in dance

To earn a minor in dance, students must complete a minimum of 20 credits including:

1. Required courses (10 credits)

- DAN 170 - Dance Improvisation/Choreography I (2)
- DAN 173 - Dance History and Appreciation (4)
- DAN 270 - Choreography II (4)

2. One course selected from

- DAN 330 - Kinesiology for the Dancer (4)
- DAN 370 - Choreography III (4)

3. Six credits from any other DAN courses

Requirements for the teaching minor in dance

To earn the teaching minor in dance at the elementary or secondary level, students must complete a minimum of 29 credits distributed as follows:

Elementary

- DAN 170 - Dance Improvisation/Choreography I (2)
- DAN 173 - Dance History and Appreciation (4)
- DAN 175 - Dance in American Culture (4)
- DAN 270 - Choreography II (4)
- DAN 330 - Kinesiology for the Dancer (4)
- DAN 350 - Creative Dance for Children (4)
- DAN 376 - Oakland Dance Theatre (0 or 1) or DAN 475 - Repertory Dance Company (1)
- DAN 425 - Issues and Trends in Dance (2)

Secondary

- DAN 170 - Dance Improvisation/Choreography I (2)
- DAN 173 - Dance History and Appreciation (4)
- DAN 175 - Dance in American Culture (4)
- DAN 270 - Choreography II (4)
- DAN 330 - Kinesiology for the Dancer (4)

- DAN 376 - Oakland Dance Theatre (0 or 1) or DAN 475 - Repertory Dance Company (1)
- DAN 425 - Issues and Trends in Dance (2)
- DAN 441 - Dance Pedagogy (4)

2. Four credits selected from (for both elementary and secondary)

- DAN 300 - Ballet (2)
- DAN 400 - Ballet (2)
  and
- DAN 310 - Modern Dance (3)
- DAN 410 - Modern Dance (3)(two credits from ballet and two from modern)

COURSE DESCRIPTIONS

DAN 100 – Ballet (2)
Technique of classical ballet. Each course may be repeated.

DAN 101 - Beginning Dance for Physical Education Majors (1)
An introduction to one dance tradition. Can include ballet, ballroom, folk, jazz, or modern. Students will demonstrate the fundamentals and proper techniques of the genre.

DAN 102 - Beginning Dance for Physical Education Majors II (1)
Further exploration of techniques in ballet, ballroom, folk, jazz, or modern dance. Students will be asked to demonstrate more refined skills and techniques in the selected genre.

DAN 103 - Fundamentals of Ballet Technique I (2)
Fundamental techniques of classical ballet. Designed for students with little or no ballet training. May be repeated.

DAN 106 - Fundamentals of Tap (2)
Fundamental tap class designed for students with little or no tap training. May be repeated.

DAN 110 - Modern Dance (3)
Technique of modern dance. May be repeated for additional credit.

DAN 113 - Fundamentals of Modern Techniques (2)
Fundamental techniques of modern dance. Designed for students with little or no dance training. May be repeated.

DAN 120 - Jazz Dance (2)
Technique of jazz dance. Each course may be repeated.

DAN 130 - Conditioning for Dance (1)
An application of specific body conditioning techniques for the dancer. May be repeated for up to 4 credits.

DAN 131 - Dance Conditioning/Pilates Mat (0 or1)
Focus on building body strength, flexibility, endurance, and coordination without adding muscle bulk by utilizing the Pilates technique. Open to all levels.

DAN 132 - Dance Conditioning/Pilates Reformer (0 or 1)
Focus on building body strength, flexibility, endurance, and coordination without adding muscle bulk by utilizing the Pilates technique. A Pilates Reformer is used to incorporate spring resistance exercises. Open to all levels. Prerequisite(s): permission of instructor.

DAN 140 - African Dance (0 or 2)
A participatory dance course that studies and performs traditional dances from different regions of Africa. Focus is on African dance techniques and the relationship between African dance and drumming. May be repeated for up to 8 credits.

DAN 160 - Tap Dance I (0 or 2)
Technique of tap-dance. May be repeated.

DAN 170 - Dance Improvisation/Choreography I (2)
An exploration of movement through improvisation. Students will develop their own movements through dance ideas and problem solving.

DAN 173 - Dance History and Appreciation (4)
An historical survey of the development of theatre dance in Western culture. Course materials presented through lecture, discussion, films, slides and viewing of live dance performances. Satisfies the university general education requirement in the arts knowledge exploration area.

DAN 175 - Dance in American Culture (4)
Course surveys ethnic dance in America through lecture and demonstration. Dance guest artists/teachers representing different cultures will demonstrate and teach specific dance styles. The intent of the course is to aid students in understanding and appreciating ethnic diversity through dance. Satisfies the university general education requirement in the arts knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

DAN 200 – Ballet (2)
Technique of classical ballet. Each course may be repeated. Prerequisite: DAN 100.

DAN 203 - Fundamentals of Ballet Technique II (2)
Fundamental techniques of classical ballet; continuation of DAN 103. Designed for beginning ballet students. May be repeated for up to 8 credits.
Prerequisite(s): DAN 103.

DAN 210 - Modern Dance (3)
Technique of modern dance. May be repeated for additional credit.
Prerequisite(s): DAN 110.

DAN 220 - Jazz Dance (2)
Technique of jazz dance. May be repeated.
Prerequisite(s): DAN 120.

DAN 230 - Special Dance Techniques (2)
Participatory dance course designed to provide experiences with current trends in dance technique at the beginning or intermediate level. May be repeated for up to 8 credits.
Prerequisite(s): one dance course.

DAN 240 - Dance Production (2)
Production based laboratory course that will cover lighting, costuming, makeup, and technological components of dance.

DAN 260 - Tap Dance II (2)
Technique of tap dance. May be repeated.
Prerequisite(s): DAN 160 or permission of instructor.

DAN 270 - Choreography II (4)
Theory of dance composition through reading, discussion, observation and experimentation. Lab required.
Prerequisite(s): DAN 170.

DAN 295 - Special Studies in Modern Dance Technique (0 or 1)
Technique class designed to give students opportunities to participate in a variety of dance experiences led by performing artists. Graded S/U. May be repeated for up to 8 credits. Should be taken with DAN 110 or 210.

DAN 299 - Dance Workshop (1 to 4)
A workshop designed to give students opportunities for participation in a variety of dance experiences led by performing artists. Normally offered in the summer. Graded S/U. May be repeated.

DAN 300 – Ballet (2)
Technique of classical ballet. May be repeated.
Prerequisite(s): DAN 200; major standing or permission of instructor.

DAN 310 - Modern Dance (3)
Technique of modern dance. May be repeated for additional credit.
Prerequisite(s): DAN 210; major standing.

DAN 320 - Jazz Dance (2)
Technique of jazz dance. May be repeated.
Prerequisite(s): DAN 220 or permission of instructor.

DAN 330 - Kinesiology for the Dancer (4)
Analysis of movement from an anatomical and mechanical point of view with emphasis on problems of dance technique. Also includes prevention and treatment of dance-related injuries.
Prerequisite(s): three dance courses.

DAN 350 - Creative Dance for Children (4)
Methods and styles of teaching dance to children within schools, community centers and private studios.
Prerequisite(s): major standing in dance or dance education minor.
Pre/Corequisite(s): DAN 300 and 310 or permission of instructor.

DAN 360 - Tap Dance III (2)
Advanced tap dance technique. May be repeated.
Prerequisite(s): DAN 260 or permission of instructor.

DAN 370 - Choreography III (4)
Continuation of DAN 270 at a more advanced level. Lab required. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): DAN 270, major standing in dance, or permission of the instructor.

DAN 373 - Dance for Musical Theatre (2)
Applied dance course that covers the techniques and styles of dance for musical theatre prevalent from the 1920s until the present day.

DAN 376 - Oakland Dance Theatre (0 or 1)
A technique- and performance-based laboratory course. Each student will participate in a dance performance during the semester, either as a performer or choreographer. May be repeated. Graded S/U.
Prerequisite(s): audition and instructor permission.

DAN 380 - Contemporary Dance History: Revolution and Revisionism (4)
Comprehensive dance history for dance majors that covers 20th and 21st century choreographers from a thematic point of view. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): DAN 173, major standing in dance or permission of the instructor.

DAN 395 - Advanced Studies in Modern Dance Technique (0 or 1)
Continuation of DAN 295, designed to give students opportunities to participate in a variety of dance experiences led by performing artists. Graded S/U. May be repeated for up to 8 credits. Should be taken with DAN 310 or 410.
Prerequisite(s): admission into the dance program or instructor permission.

DAN 400 – Ballet (2)
Technique of classical ballet. May be repeated.
Prerequisite(s): DAN 300, major standing or permission of instructor.

DAN 402 - Advanced Ballet: Partnering (2)
May be repeated.

DAN 404 - Advanced Ballet: Pointe (1)
Technique class that emphasizes advanced ballet skills using pointe shoes. Additionally, students will learn a range of ballet repertoire during the semester. May be repeated.
Prerequisite(s) or corequisite(s): DAN 100.

DAN 410 - Modern Dance (3)
Technique of modern dance. May be repeated for additional credit.
Prerequisite(s): DAN 310, major standing.

DAN 411 - Professional-level Dance Technique in Ballet and Modern Dance (2)
Modern and ballet dance technique taught in professional dance company environment. Designed for advanced dancers as a pre-professional training program. May be repeated.
Prerequisite(s): DAN 310 with a grade of 2.0 or higher and permission of instructor.

DAN 420 - Jazz Dance (2)
Technique of jazz dance. May be repeated.
Prerequisite(s): DAN 320 or permission of instructor.

DAN 425 - Issues and Trends in Dance (2)
Readings, videos, and discussions pertaining to dance today. Topics will range from post modernism, dance theory, dance notation, dance education, multi-cultural influences, and computers and dance.
Prerequisite(s): major standing in dance, 300/310 level in technique or permission of the instructor.

DAN 428 - Opportunities and Careers in Dance (2)
Survey of business techniques and procedures, laws, copyrights, grant writing and accounting practices in the field of dance; a study of the production aspects of a dance performance; and a study of career opportunities related to dance.
Prerequisite(s): permission of instructor.

DAN 430 - Special Topics (1 to 4)
Group study of current topics in dance. May be repeated for up to 16 credits.
Prerequisite(s): three dance courses.

DAN 441 - Dance Pedagogy (4)
Theory and practice of teaching dance technique with emphasis on ballet and modern dance. Includes study of age-appropriate and level-appropriate instruction, correct anatomical approach to dance training, and lesson and unit planning.
Prerequisite(s): DAN 300 and DAN 310.

DAN 470 - Senior Recital (2)
Dance program choreographed and performed by a student in the final year of dance study.
Prerequisite(s): audition and permission of instructor.

DAN 471 - Senior Recital II (2)
Continuation of DAN 470.
Prerequisite(s): DAN 470.

DAN 475 - Repertory Dance Company (0 or 1)
Advanced technique and performance-based laboratory course. Student will participate in rehearsals and performances of dance works by various choreographers. May be repeated for a maximum of 12 credits. Graded S/U.
Prerequisite(s): audition and permission of instructor.

DAN 490 - Independent Study (1 to 4)
Permission of instructor. May be repeated for additional credit. Graded S/U.

DAN 497 - Apprentice College Teaching (2 or 4)
Supervised participation in teaching an undergraduate course in dance, together with discussion of teaching methods and objectives. May be repeated for up to 8 credits.
Prerequisite(s): permission of instructor.

DAN 498 – Apprenticeship (0 to 4)
Students selected to apprentice with Eisenhower Dance Ensemble (EDE) earn credit depending upon frequency of participation. S/U grading only. May be repeated for up to 16 credits.
Prerequisite(s): instructor permission.

Department of Philosophy

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(248) 370-3390
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Chairperson: *Mark Rigstad*

Professors emeriti: *David C. Bricker*

Professor: *Phyllis Rooney*

Associate professors: *Paul R. Graves, John F. Halpin, Eric La Rock, Fritz J. McDonald, Mark C. Navin, Mark Rigstad, Elysa R. White*

Assistant professors: *Ami Harbin, Joyce C. Havstad*

Adjunct assistant professor: *Daniel Propson*

Special lecturers: *John Burn, Lisa Campbell, Tristin Hassell, Tiffany Hudson, Adam Streed, Anthony Marc Williams, Daniel Yeakel, Grant Yocom*

Chief adviser: *Paul R. Graves*

Philosophy is one of the oldest yet often least understood of the liberal arts. The philosopher is interested in all aspects of human life, searching for the greatest possible clarity concerning the most fundamental questions. There is no one kind of philosophy; rather, there are many kinds, each with its own value.

Philosophy has always served two functions. The first is speculative, the attempt to formulate illuminating generalizations about science, art, religion, nature, society and any other important topics. The second is critical, the unsparing examination of its own generalizations and those of other fields to uncover unfounded assumptions, faulty thinking, hidden implications and inconsistencies. The study of philosophy is designed to encourage a spirit of curiosity, a sensitivity toward the uses of words, and a sense of objective assessment toward oneself as well as others. Competence in philosophy is solid training for advanced study in such fields as law, government and public administration, as well as the ministry and teaching.

The Department of Philosophy offers programs of study leading to the Bachelor of Arts degree with a major in philosophy, and a minor in philosophy.

Requirements for the liberal arts major in philosophy, B.A. program

To earn the Bachelor of Arts degree with a major in philosophy, a student must complete a minimum of 44 credits in philosophy. Only courses in which the student has earned a grade of at least 2.0 may be counted toward the philosophy major. At least 20 credits in Philosophy must be taken at Oakland University. Students must complete the following requirements:

1. One course in logic chosen from

- PHL 107 - Introduction to Symbolic Logic (4)
- PHL 370 - Advanced Symbolic Logic (4) (recommended for those considering graduate work in philosophy)

2. Two courses in history of Western philosophy

- PHL 204 - Ancient Greek Philosophy (4)
- PHL 206 - Early Modern Philosophy (4)

3. At least two courses chosen from

- PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
- PHL 313 - Ethical Theory (4)
- PHL 314 - Ethics, Language and Reality (4)
- PHL 316 - Ethics in Business (4)
- PHL 318 - Bioethics (4)
- PHL 319 - Philosophy of Law (4)
- PHL 320 - Global Justice (4)
- PHL 321 - Political Philosophy (4)

4. At least two courses chosen from

- PHL 305 - Philosophy of Gender (4)
- PHL 308 - Twentieth Century British and American Philosophy (4)
- PHL 325 - Philosophy of Religion (4)
- PHL 329 - Philosophy of Science (4)
- PHL 330 - Topics in the Philosophy of Science (4)
- PHL 331 - Philosophy of Biology (4)
- PHL 333 - Theories of Knowledge (4)
- PHL 335 - Consciousness and Persons (4)
- PHL 340 - Metaphysics (4)
- PHL 345 - Theories of Truth (4)
- PHL 437 - Philosophy of Mind (4)
- PHL 475 - Philosophy of Language (4)

5. At least 24 credits in PHL courses must be at the 300 level or above.

6. Capstone course

- PHL 465 - Seminar on a Philosophical Topic (4) (satisfies the university general education requirement for the capstone course in the major)

Note

A student may substitute other courses for any of the above with the permission of the department chairperson. Students planning to apply for graduate work in philosophy should meet with a faculty member to discuss additional appropriate coursework.

Students pursuing a Bachelor of Arts in Liberal Studies degree, or a Bachelor of Arts in Integrative Studies degree, may complete a philosophy minor as part of their coursework.

Students using this catalog to meet philosophy major requirements may also use any course subsequently approved as satisfying requirements #3 and 4 above and published in a later catalog.

Departmental Honors

Departmental honors in philosophy are based upon three criteria: (a) general performance in philosophy courses, (b) written work in philosophy and (c) the ability to articulate philosophical ideas orally. First, students must achieve at least a 3.6 grade point average in philosophy courses. Second, those who do so and want to be considered for departmental honors should submit an example of their philosophical writing to the department chairperson early in the semester in which they expect to graduate. Normally this would be a substantial term paper, but two medium-length papers may also be acceptable in some cases. Third, if this work is judged to be of sufficiently high quality, it will be read by the rest of the department, and a conference with the student will be arranged to give him or her an opportunity to discuss the paper (or papers) further with the faculty. The decision

to award honors will then be made by the faculty based on all three criteria. Deadlines for submission: October 15 for the fall semester, February 15 for the winter semester.

Requirements for the liberal arts minor in philosophy

To earn a minor in philosophy, students must complete a minimum of 20 credits in philosophy, including:

1. One semester of logic selected from

- PHL 102 - Introduction to Logic (4)
- PHL 107 - Introduction to Symbolic Logic (4)
- PHL 370 - Advanced Symbolic Logic (4)

2. One semester of ethics selected from

- PHL 103 - Introduction to Ethics (4)
- PHL 104 - Introduction to Ethics in Science and Engineering (4)
- PHL 313 - Ethical Theory (4)
- PHL 314 - Ethics, Language and Reality (4)

3. One semester of metaphysics/epistemology selected from

- PHL 204 - Ancient Greek Philosophy (4)
- PHL 205 - Medieval Philosophy (4)
- PHL 206 - Early Modern Philosophy (4)
- PHL 308 - Twentieth Century British and American Philosophy (4)
- PHL 329 - Philosophy of Science (4)
- PHL 333 - Theories of Knowledge (4)
- PHL 340 - Metaphysics (4)
- PHL 401 - Study of a Major Philosopher (4)
- PHL 437 - Philosophy of Mind (4)
- PHL 475 - Philosophy of Language (4)

4. At least 8 additional credits in philosophy courses numbered 300 or above

Course Prerequisites

Except where noted, 100-and 200-level courses have no prerequisites. Advanced courses (numbered 300 to 499) have a general prerequisite of writing proficiency, plus any special requirements listed with the course description.

PHL 101 - Introduction to Philosophy (4)
Study of the main types and problems of Western philosophy. Readings are chosen to illustrate the development of Western thought from the ancient Greeks to the present. Offered every semester. Satisfies the university general education requirement in the western civilization knowledge exploration area.

PHL 102 - Introduction to Logic (4)
The relationship between conclusions and statements given in support of them. In addition to elementary deductive and inductive logic, topics may include analysis of ordinary arguments, argument by analogy and informal fallacies. Offered every semester. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

PHL 103 - Introduction to Ethics (4)
Major ethical analyses of right and wrong, good and evil, from the ancient Greeks to the present. Appeals to custom, theology, happiness, reason and human nature will be examined as offering viable criteria for judgments on contemporary issues of moral concern. Offered every semester. Satisfies the university general education requirement in the western civilization knowledge exploration area.

PHL 104 - Introduction to Ethics in Science and Engineering (4)
Survey of canonical works in the history of Western ethical theory providing students a critical understanding of a plurality of viable ideas, principles, and criteria by which to evaluate and judge contemporary issues of ethical concern in the practice of science and engineering. Satisfies the university general education requirement in the western civilization knowledge exploration area.

PHL 107 - Introduction to Symbolic Logic (4)
Formal or symbolic logic is a study of what makes deductive arguments valid, employing symbols to represent sentences, words, phrases, etc. in order to reveal the formal structure of the arguments. Offered every year. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

PHL 200 - Fact, Value, and Knowledge (4)
Intermediate examination of central issues and problems of metaphysics, epistemology, and ethics: mind, knowledge, will, action, and conflict. Focus on the methodology of philosophy, including key skills in writing and reasoning. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): PHL 101, 102, 103 or 107.

PHL 204 - Ancient Greek Philosophy (4)
Development of philosophical thought in Greece, from its beginning around 600 B.C.E. to the Hellenistic period. Emphasis on Plato and Aristotle. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the university general education requirement in the Western civilization knowledge exploration area. Satisfies the university general education requirement for writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PHL 101, 102, 103, 107, or 200 or permission of instructor.

PHL 205 - Medieval Philosophy (4)
Survey of Jewish, Christian, and Islamic medieval philosophy. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the university general education requirement in the Western civilization knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PHL 101, 102, 103, 107, or 200, or permission of instructor.

PHL 206 - Early Modern Philosophy (4)
Development of philosophical thought in Europe in the 17th and 18th centuries. Emphasis on Descartes, Locke, Hume and Kant. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the university general education requirement in the Western civilization knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PHL 101, 102, 103, 107, or 200, or permission of instructor.

PHL 300 - Topics in Philosophy (4)
One philosophical topic or problem at an intermediate level of difficulty. Topic to be announced in the Schedule of Classes for each semester. May be repeated for additional credit under different subtitle.
Prerequisite(s): one philosophy course.

PHL 305 - Philosophy of Gender (4)
Philosophical issues relating to gender are explored. Different approaches toward dealing with sexism will be examined, as part of an ongoing analysis of what constitutes human nature, freedom, equality and the relationship between the individual and the state. Identical with WGS 307.
Prerequisite(s): one course in philosophy or one course in women and gender studies.

PHL 307 - European Philosophy Since Kant (4)
Among the major philosophers included are Hegel, Marx, Nietzsche and Sartre. Several types of Marxism and existentialism will be distinguished and their influence in this country will be discussed. Offered every two years.
Prerequisite(s): PHL 101, 103, 200, 204, 205, or 206.

PHL 308 - Twentieth Century British and American Philosophy (4)
The issues that have dominated Anglo-American philosophy in the 20th century. The course will trace the history that has led Americans and Britons to look at philosophy in a new way, appropriate to our scientific world-view.
Prerequisite(s): one course in logic (PHL 107 recommended) or PHL 206.

PHL 309 - Philosophy of Sexuality (4)
Philosophical issues related to sex, including ethical issues and clarification of contested concepts such as homosexuality, consenting adults, and pornography.
Prerequisite(s): PHL 101, 103, or 200, or WGS 200.

PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
Considers competing theories of global ethics, diplomacy, international law, just warfare, nationalism, military duty, disarmament, pacifism, non-violent resistance, civil strife, and terrorism. Offered every two years.
Prerequisite(s): PHL 101, 103, or 200, or PS 114 or AN 200 or SOC 205.

PHL 312 – Aesthetics (4)
The nature of aesthetic experience and aesthetic judgment in the appreciation of nature and art. Major theories of the creation and structure of works of art, and the logic and semantics of aesthetic judgment. Offered every other year.
Prerequisite(s): either one course in philosophy; or one general education writing intensive course in art, music, or literature; or permission of instructor.

PHL 313 - Ethical Theory (4)
Nature and relationship between means and ends in moral theory are considered. When, if ever, do the ends justify the means? Considers potential conflict between social good and the rights of individuals in this light. Examines attempts to reconcile these important aspects of moral theory.
Prerequisite(s): PHL 103 strongly recommended and junior or senior standing.

PHL 314 - Ethics, Language and Reality (4)
Considers competing theories about the nature, meaning and reality of moral terms. What do moral terms mean? Do they refer to properties? Alternatively, do moral terms refer to emotional states of a person who uses such terms? What is the role of identity or human nature in moral language? Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the western civilization knowledge exploration area.
Prerequisite(s): PHL 101, 103, or 200; and either PHL 107 or 370.

PHL 316 - Ethics in Business (4)
Review of basic ethical theory, and application to typical moral problems in business practices and institutions.
Prerequisite(s): junior standing, PHL 103.

PHL 318 – Bioethics (4)
Central ethical issues in modern health care and research. Included are the distribution and allocation of health resources, the right to life and death, "informed consent" and eugenics. Offered every other year.
Prerequisite(s): PHL 103 recommended.

PHL 319 - Philosophy of Law (4)
The nature of law and legal obligation, with emphasis on the relation of law, coercion and morality. Attention is also given to such issues as the nature of legal reasoning, the justifiability of civil disobedience and the justification of punishment. Offered every other year.
Prerequisite(s): PHL 101, 103 or 200, or PS 241.

PHL 320 - Global Justice (4)
Considers ethical issues surrounding global poverty, international inequality, transnational institutional governance, human rights, international trade, immigration, and climate change.
Prerequisite(s): PHL 101, 103 or 200, or PS 114 or AN 200 or SOC 205.

PHL 321 - Political Philosophy (4)
The meanings of central concepts in political philosophy, such as justice, freedom and authority, are examined through readings in classical political philosophers and crucial problems. Offered every other year.
Prerequisite(s): PHL 101, 103, or 200, or PS 131 or SOC 205.

PHL 325 - Philosophy of Religion (4)
Examination of arguments for and against the existence of God, the nature of religious language, and relations between religion and philosophy. Offered every other year. Identical with REL 325.
Prerequisite(s): One course in philosophy or religious studies or permission of instructor.

PHL 329 - Philosophy of Science (4)
Philosophical problems arising from critical reflection on the sciences. Typical topics: the structure of scientific explanation, the nature of scientific laws and theories, causality and confirmation. Offered every other year.
Prerequisite(s): one course in philosophy or one in natural science.

PHL 330 - Topics in the Philosophy of Science (4)
Specialized topics such as philosophy of biology, philosophy of the social sciences, philosophy of technology, or the history and philosophy of science will be offered periodically. Topic to be announced in the Schedule of Classes.
Prerequisite(s): junior standing and one course in philosophy or consent of instructor.

PHL 331 - Philosophy of Biology (4)
Philosophical examination of issues arising out of modern biology such as the nature of species, the mechanisms of natural selection, and the implications of evolutionary theory for topics such as philosophy of mind, epistemology, social and political theory, ethics and medicine.
Prerequisite(s): one course in philosophy or one course in biology; PHL 329 recommended.

PHL 333 - Theories of Knowledge (4)
Critical examination of knowledge claims and of the types of justification given in their support. Typical topics: skepticism, empiricism, rationalism, believing and knowing, intuition and limits of knowledge. Offered every other year.
Prerequisite(s): one philosophy course; PHL 206 recommended.

PHL 335 - Consciousness and Persons (4)
Exploration of central questions about the nature of consciousness and persons. What is consciousness? How does consciousness relate to the physical world? What are persons? How do persons relate to bodies? Do persons persist over time? Can persons survive biological death?
Prerequisite(s): One course in philosophy or psychology, or BIO 351 (neurobiology), or permission of instructor.

PHL 336 - Mental Causation (4)
Philosophy meets neuroscience: What is the nature of mental causation? Are mental states wholly determined by brain states? Do reasons, beliefs, intentions, and other mental states influence neuronal activity and behavior? What is the relationship between the formation of a conscious intention, neural events, and voluntary action?
Prerequisite(s): one course in philosophy or permission of instructor.

PHL 340 – Metaphysics (4)
Study of selected influential attempts to characterize the basic features of the world. Emphasis on reformulations of metaphysical problems in the light of modern advances in scientific knowledge. Offered every other year. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): PHL 107 or 370; and PHL 200, 204, 205, or 206; or permission of instructor.

PHL 345 - Theories of Truth (4)
Theories of the nature of truth. Does truth exist? Is truth entirely a matter of perspective? Is the truth of a belief resemblance to reality? Are all true beliefs useful? Is truth always a good quality? Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the Western civilization knowledge exploration area.
Prerequisite(s): PHL 107, 200, or 370, or permission of instructor.

PHL 350 - Philosophies and Religions of Asia (4)
The major religions of India, China and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism and Buddhism, both the ancient traditions and some modern developments. Identical with REL 350.
Prerequisite(s): one philosophy course or junior standing.

PHL 370 - Advanced Symbolic Logic (4)
Standard first-order symbolic logic, emphasizing quantification theory and including identity theory and logical semantics. The logical system is approached both as a formal system and as a theoretical analysis of human reasoning. Offered every other year.
Prerequisite(s): PHL 102 or PHL 107 or CSE 130 or MTH 062 or equivalent.

PHL 390 - Directed Readings in Philosophy (2)
Tutorial on a topic not included in regular courses, primarily (but not exclusively) for majors. Students should consult with the department chairperson before approaching a faculty member with a topic. Graded S/U.
Prerequisite(s): one philosophy course at Oakland and written permission of instructor, junior standing.

PHL 395 - Independent Study in Philosophy (4)
Tutorial on a topic not included in regular courses, primarily (but not exclusively) for majors. In addition to reading and consultation, the student will write a substantial term paper. Cannot be repeated or counted toward any major or minor requirement other than degree credit without prior written approval from department chairperson.
Prerequisite(s): one philosophy course at Oakland and written permission of department chair, form available in 341 ODH; junior standing.

PHL 401 - Study of a Major Philosopher (4)
A study of the works of one major philosopher. The specific philosopher will vary, but courses on Plato, Aristotle and Kant will be offered every few years. May be repeated for credit.
Prerequisite(s): one philosophy course; PHL 204, 205, 206, 307, or 308 recommended, whichever is relevant.

PHL 437 - Philosophy of Mind (4)
Selected topics or works in the philosophical literature about mind. Some topics are: the nature of psychological explanation, the relation of mind and body, thinking, emotions, concepts, consciousness and remembering. Offered every other year.
Prerequisite(s): One course in philosophy or psychology or BIO 351 (neurobiology); junior standing.

PHL 444 - Freedom, Agency, and Responsibility (4)
Seminar on the philosophical issues of freedom of choice and action. Are we ever truly free? Are free choices and actions inconsistent with determinism in nature? Does morality require freedom? Discussion of these issues based on historical and contemporary sources (e.g., Kant, Nietzsche, Frankfurt, and Dennett).
Prerequisite(s): four courses in philosophy (PHL 103, 107, and 206 suggested) or permission of instructor.

PHL 465 - Seminar on a Philosophical Topic (4)
One philosophical topic or problem at an advanced level of difficulty, normally requiring considerable background in philosophy. Topic and prerequisites to be announced in the Schedule of Classes for each semester. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): 28 credits in philosophy or permission of instructor.

PHL 475 - Philosophy of Language (4)
Philosophical theories of natural language structure. Emphasis on views about what meaning is and how we are to explain our ability to communicate with one another. Offered every other year. Identical with LIN 475. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): junior standing, PHL 107 or PHL 370 or LIN 307, and one additional course in philosophy; or permission of instructor.

PHL 497 – College Teaching Apprenticeship (4)
Open to a well-qualified philosophy student who is invited by a faculty member to assist in a regular college course, usually as preparation for a career as a professor of philosophy.

Department of Physics

190 Mathematics and Science Center
(248) 370-3416
Fax: (248) 370-3408
Department Website: oakland.edu/physics

Chairperson: *Andrei Slavin*

Professors emeriti: *Abraham R. Liboff, Ralph C. Mobley, Norman Tepley, Paul A. Tipler, W. D. Wallace, Robert M. Williamson*

Distinguished professors: *Michael Chopp, Andrei Slavin, Gopalan Srinivasan*

Professors: *Ken Elder, David Garfinkle, George Martins, Bradley J. Roth, Yang Xia*

Associate professors: *Kapila Clara Castoldi, Evgeniy Khain, Alberto Rojo*

Assistant professors: *Eugene Surdutovich, Yuejian Wang*

Research associate professor*: Vasyl Tyberkevych*

Adjunct professors: *Carl Bleil, Jieli Chen, James R. Ewing, Carri Glide-Hurst, Thomas Guerrero, Clifford M. Les, Brian Marples, Hani Sabbah, Bryan Shumaker, Hamid Soltanian-Zadeh, Srinivasan Venkatesan, Uma Devi Venkateswaran, George Wilson, Di Yan, Hualiang Zhong*

Adjunct associate professors: *Robert L. Hammond, Quan Jiang, Robert A. Knight, Jian Liang, Patrick N. McDermott*

Adjunct assistant professors*: Hassan Bagher-Ebadian, Susan M. Bowyer, Benjamin Buller, Edward Castillo, Dan Ionascu, Kenneth Jenrow*

Special Lecturer: *Steffan Puwal*

Lecturers: *Rao Bidthanapally, Sally K. Daniel*

Chief Adviser: *George Martins*

Courses within the Department of Physics are grouped into two categories - pre-professional career programs and experiences in science for students with broad interests in contemporary human culture. The latter are strongly recommended for students planning any of a wide range of careers, including law, business, criminology, art history, music, government, education and journalism. High school students intending to major in physics should refer to the Admissions section of the catalog for specific preparation requirements.

Programs of study lead to the Bachelor of Science degree with majors in physics, medical physics and engineering physics, Bachelor of Arts degree with a major in physics, Master of Science degree in physics, and Doctor of Philosophy degree in biomedical sciences with specialization in medical physics.

The Bachelor of Science in physics is intended for students who plan to become professional scientists. It qualifies students for graduate studies in physical sciences or research positions in government and industry. Students pursuing this degree should consult with faculty members on different available specialties.

The Bachelor of Arts in physics is primarily designed for students who desire a broader, less professionally specialized background in physics. The minor in physics is available for students who want to supplement their work in other fields with an introduction to physics. A secondary teaching minor in physics is available.

The Bachelor of Science in medical physics is based on a group of physics courses plus relevant biology, chemistry and mathematics courses. These students take ''Biological Physics'' and ''Medical Physics.'' The degree, with the addition of select biology courses, offers an excellent preparation for medical school. Students should consult an adviser in pre-medical studies regarding the selection of these courses.

The Bachelor of Science in engineering physics, which is offered jointly with the School of Engineering and Computer Science, is intended for well-qualified students who seek a broad education in physics and mathematics along with basic preparation in engineering.

All physics majors, during the semester they plan to graduate, will be required to complete an assessment test. The purpose of this test is to determine how well students are achieving the goals of the learning objectives in their major. The results of this test will have no impact on a student's graduation status.

Advising

Chief adviser: *George Martins*

Advisers in the various physics fields are professors David Garfinkle (astrophysics), Alberto Rojo (secondary teacher education program), Bradley Roth (medical physics, biophysics), Andrei Slavin (engineering physics, geophysics), and Gopalan Srinivasan (materials physics). Independent research projects are available in each area.

Departmental Honors

Departmental honors may be awarded to students on the basis of high academic achievement and either independent research or meritorious service to the Department of Physics.

Requirements for the liberal arts major in physics, B.A. program

To earn the Bachelor of Arts degree with a major in physics, students must complete:

1. Required courses in physics

- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 371 - Foundations of Modern Physics (4)
- PHY 317 - Modern Physics Laboratory (2)

2. An additional 16 credits in physics, with at least 12 credits in courses numbered above 200

3. Required courses in mathematics

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)

4. Eight additional credits in chemistry, mathematics and physics, but not CHM 300

5. Capstone course

- PHY 400 - Undergraduate Seminar (3) or PHY 490 - Independent Research (3) (either of which fulfills the university general education requirement for the capstone course in the major)

Requirements for the major in physics, B.S. program

To earn the Bachelor of Science degree with a major in physics, students must complete:

1. 20 required credits in physics

- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 317 - Modern Physics Laboratory (2)
- PHY 351 - Intermediate Theoretical Physics (4)
- PHY 371 - Foundations of Modern Physics (4)

2. A minimum of 22 elective credits in physics at or above the 200 level, including at least 2 credits of laboratory coursework

- PHY 361 - Mechanics I (4) and PHY 381 - Electricity and Magnetism (4) are strongly recommended for students planning graduate work in physics.

3. Required courses

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4) (or MTH 256) or APM 255 - Introduction to Differential Equations with Matrix Algebra (4) (or APM 257)

4. 10 credits of chemistry at a level not below CHM 144, but not CHM 300

5. Capstone course

- PHY 400 - Undergraduate Seminar (3) or PHY 490 - Independent Research (3) (either of which fulfills the university general education requirement for the capstone course in the major)

Requirements for the major in engineering physics, B.S. program

Coordinators: *Hoda Abdel-Aty-Zohdy (SECS) with, Andrei Slavin (Physics)*

The program in engineering physics is offered jointly by the School of Engineering and Computer Science and the College of Arts and Sciences. This program blends the pure and applied, the theoretical and practical aspects of scientific knowledge into a meaningful educational experience. Through the university's cooperative education program, engineering physics students may opt to combine a relevant work experience with their formal education.

Course requirements (minimum of 128 total credits)

To earn the degree of Bachelor of Science with a major in engineering physics, students must complete a minimum of 128 credits, demonstrate writing proficiency (see Undergraduate degree requirements) and meet the following requirements:

General education (excluding mathematics and science) -- 28 credits

Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and sciences -- 48

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- CHM 143 - Chemical Principles (4) ; or [CHM 144 (4) and CHM 147 (1)] or CHM 162 (4)
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 317 - Modern Physics Laboratory (2)
- PHY 351 - Intermediate Theoretical Physics (4)
- PHY 361 - Mechanics I (4)
- PHY 371 - Foundations of Modern Physics (4)

Must choose one course from the list below:

- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 381 - Electricity and Magnetism (4)
- PHY 472 - Quantum Mechanics I (4)

Engineering -- 32 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- ECE 276 - Electric Circuits (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- PHY 490 - Independent Research (3 to 6)

Professional Depth areas -- 12 credits

The following two depth areas are offered as typical. Select 12 credits from one of these. Students with different interests can construct different depth areas in consultation with the program coordinators.

Solid state physics and technology depth area

- ECE 484 - Electronic Materials and Devices (4)
- PHY 472 - Quantum Mechanics I (4)

Choose one design elective course from the list below

- ECE 378 - Computer Hardware Design (4)
- ECE 437 - Communication Systems (4)
- ECE 470 - Microprocessors-based Systems Design (4)
- ECE 487 - Integrated Electronics (4)

Applied mechanics depth area

- PHY 366 - Vibrations and Waves (4)
- ME 322 - Engineering Mechanics (4) (or ME 361)

Design elective, chosen from

- ME 456 - Energy Systems Analysis and Design (4)
- ME 461 - Analysis and Design of Mechanical Structures (4)
- ME 482 - Fluid and Thermal Systems Design (4)
- ME 486 - Mechanical Systems Design (4)
- ME 487 - Mechanical Computer-Aided Engineering (4)

Technical electives, choose 8 credits from

- MTH 275 - Linear Algebra (4)
- APM 263 - Discrete Mathematics (4)
- PHY 318 - Nuclear Physics Laboratory (2)
- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 372 - Nuclear Physics (4)
- PHY 381 - Electricity and Magnetism (4)
- PHY 418 - Modern Optics Laboratory (2)
- PHY 472 - Quantum Mechanics I (4)
- PHY 482 - Electricity and Magnetism II (4)
- ECE 378 - Computer Hardware Design (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)
- ME 361 - Mechanics of Materials (4)
- Any 400-level ECE, ME or ISE courses (4-8)

Performance Requirements and Additional General Education Notes

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the engineering and computer science courses and also in the mathematics and science courses taken to meet program requirements. Students in this program are not required to complete the college distribution requirement of the College of Arts and Sciences. For further information about this program, see the section of this catalog for the School of Engineering and Computer Science, Engineering Physics program.

Requirements for the major in medical physics, B.S. program

To earn the Bachelor of Science degree with a major in medical physics, students must complete:

1. Physics courses

- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 317 - Modern Physics Laboratory (2)
- PHY 318 - Nuclear Physics Laboratory (2)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- PHY 351 - Intermediate Theoretical Physics (4)
- PHY 371 - Foundations of Modern Physics (4)
- PHY 372 - Nuclear Physics (4)
- PHY 381 - Electricity and Magnetism (4)

2. Mathematics and statistics courses

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- STA 226 - Applied Probability and Statistics (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4) (or APM 257)

3. Chemistry courses

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- plus 4 additional credits at a level not below CHM 144 (CHM 201 may be taken for credit, but not CHM 300)

4. Biology courses

- BIO 111 - Biology I (4)
- BIO 205 - Human Anatomy (4)
- BIO 207 - Human Physiology (4)

5. Capstone course

- PHY 400 - Undergraduate Seminar (3) or PHY 490 - Independent Research (3) (either of which fulfills the university general education requirement for the capstone course in the major)

Secondary Teacher Education Program (STEP): Physics

The Secondary Teacher Education Program (STEP) at Oakland University is an extended program of study leading to certification. Students in this program may complete the requirements for a B.A. degree in physics as listed below or may complete the requirements for the B.S. degree, which requires 14 additional credits. Generally, eligibility for admission to the STEP requires a GPA of 3.00 in both the major and minor, and an overall GPA of 2.80. No single major or minor course grade may be below 2.0. Second undergraduate degree candidates completing major and/or minors may be required to complete additional course work at Oakland University beyond the stated minimums.

1. Required courses - 16 credits

- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 317 - Modern Physics Laboratory (2)
- PHY 371 - Foundations of Modern Physics (4)

2. Twelve credits chosen from

- PHY 325 - Biological Physics (4)
- PHY 331 - Optics (4)
- PHY 341 - Electronics (4)
- PHY 351 - Intermediate Theoretical Physics (4)
- PHY 361 - Mechanics I (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 372 - Nuclear Physics (4)
- PHY 381 - Electricity and Magnetism (4)
- PHY 421 - Thermodynamics (4)

3. Four laboratory credits chosen from

- PHY 306 - Observational Astronomy (2)
- PHY 318 - Nuclear Physics Laboratory (2)
- PHY 347 - Electronics Laboratory (2)
- PHY 418 - Modern Optics Laboratory (2)
- PHY 487 - Electricity and Magnetism Laboratory (2)
- PHY 490 - Independent Research (3-4)

4. Mathematics courses - 12 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4) (or APM 257)

5. Chemistry courses - 10 credits

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)

6. Four credits of biology at or above the level of BIO 111, excluding BIO 300.

7. Four credits of earth science chosen from

- PHY 106 - Earth Science/Physical Geography (4)
- PHY 307 - Geophysics (4)
- PHY 308 - Physical Oceanography (4)

8. Four credits relating science, technology, and society chosen from

- AN 300 - Culture, Society and Technology (4)
- ENV 308 - Introduction to Environmental Studies (4)
- ENV 312 - Energy and the Environment (4)
- PHY 115 - Energy (4)

9. Capstone course

- PHY 400 - Undergraduate Seminar (3) or PHY 490 - Independent Research (3) (either course fulfills the university general
- education requirement for the capstone course in the major)

Additional information

A program in STEP must include either a 20-28 credit secondary teaching minor or an integrated science endorsement. Furthermore, STEP Physics majors must also complete a sequence of undergraduate course work in education to include SED 300, RDG 338, DLL 397, FE 406 and SED 427.

Extended study including SE 401, SED 428 and SED 455 is also required. Further details on program and admission requirements and procedures can be found in the School of Education and Human Services portion of the catalog and by consulting advisers in the department of Physics and the School of Education and Human Services Advising Office (363 Pawley Hall, 248-370-4182).

Secondary Teacher Education Program (STEP): Endorsement in Integrated Science

Students pursuing the STEP Physics major are eligible to pursue an Integrated Science endorsement. Students who complete both the STEP Physics major and the STEP Integrated Science program will be recommended for certification by Oakland University to teach the following subjects at the secondary level: Biology, Chemistry, Earth Science, Life Science, Physical Science and Physics. This program may be substituted for a secondary teaching minor.

Students must complete the STEP physics major and the following courses:

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- ENV 308 - Introduction to Environmental Studies (4)
- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)
- PHY 104 - Astronomy: The Solar System (4)
- GEO 106 - Earth Science/Physical Geography (4) or PHY 106 - Earth Science/Physical Geography (5)

Note

STEP physics majors should note that many of the courses listed above may have already been taken in the process of completing the STEP physics major.

A cumulative grade point average of 3.00 is required in courses in the program, with no single course grade below 2.0. Second undergraduate degree candidates completing the program may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the STEP physics adviser.

Departmental Honors

Departmental honors may be awarded to students on the basis of high academic achievement and either independent research or meritorious service to the Department of Physics.

Requirements for the liberal arts minor in physics

To earn a minor in physics, students must complete a minimum of 20 credits, including:

1. Required courses

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

2. At least 10 credits in physics courses, of which 8 must be numbered 300 or above

Requirements for the secondary teaching minor in physics

To earn a secondary teaching minor in physics, students must complete:

1. Required courses

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

2. 10 credits in physics courses numbered 300 or above

- PHY 371 - Foundations of Modern Physics (4) must be one of the courses

Note

Non-sciences majors, i.e., students majoring in disciplines other than biology or chemistry, must complete an additional 4 credits in science for a total of 24 credits.

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education minor adviser in the department.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

PHY 101 - General Physics I (4)

Mechanics, heat, mechanical waves and sound. Calculus is not required. PHY 101 and PHY 110 together satisfy the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 062 or equivalent recommended.
Corequisite(s): PHY 110.

PHY 102 - General Physics II (4)

Electricity and magnetism, light, relativity, atomic and nuclear physics. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): PHY 101 recommended.
Corequisite(s): PHY 111.

PHY 104 - Astronomy: The Solar System (4)

The sun, planets, space travel, the search for extraterrestrial life. Offered fall only. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

PHY 105 - Astronomy: Stars and Galaxies (4)

Nature and evolution of stars, the Milky Way and other galaxies, cosmology. Offered winter only. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

PHY 106 - Earth Science/Physical Geography (4)
The earth: its structure, history, and the geography of its surface. Topics include the theory of continental drift, rocks and minerals, earthquakes, volcanoes, mountains, rivers, deserts, weather, climate, the geomagnetic field, and the earth's resources. Identical with GEO 106. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

PHY 108 - Principles of Physics I (4)
Mechanics, heat, mechanical waves and sound. Calculus is not required. This course has common lectures with PHY 101. PHY 108 does not satisfy the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 062 or equivalent recommended.

PHY 109 - Principles of Physics II (4)
Electricity and magnetism, light, relativity, atomic and nuclear physics. This course has common lectures with PHY 102. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): PHY 108 recommended.

PHY 110 - General Physics Lab I (1)
Elementary experiments in mechanics, thermodynamics, and waves. May be taken with permission by students who have completed PHY 108 or PHY 161.
Corequisite(s): PHY 101 or PHY 151.

PHY 111 - General Physics Lab II (1)
Elementary experiments in electricity and magnetism, optics, and modern physics. May be taken by permission by students who have completed PHY 109 or PHY 162.
Corequisite(s): PHY 102 or PHY 152.

PHY 115 – Energy (4)
Basic physical principles of energy, sources, transmission and distribution. Political, economic and ecological considerations. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): high school algebra.

PHY 120 - The Physics of Everyday Life (4)
Concepts of physics taught with reference to specific everyday observations or devices such as automobiles, televisions, radios, and microwave ovens. Topics include the laws of motion, fluids, heat, thermodynamics, waves, electric and magnetic fields, optics and nuclear physics. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

PHY 131 - The Physics of Cancer, Stroke, Heart Disease, and Headache (4)
The physical basis for a variety of diseases and disorders, as well as diagnostic and therapeutic techniques will be discussed by a number of medical physics faculty and guest lecturers.
Prerequisite(s): high school algebra.

PHY 151 - Introductory Physics I (4)
Classical mechanics and thermodynamics. For science, mathematics and engineering students. PHY 151 and PHY 110 together satisfy the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 154 recommended.
Corequisite(s): PHY 110.

PHY 152 - Introductory Physics II (4)
Sound, light, electricity and magnetism. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): PHY 151 recommended.
Corequisite(s): PHY 111; MTH 155 recommended.

PHY 161 - Fundamentals of Physics I (4)
Classical mechanics and thermodynamics. For science, mathematics and engineering students. This course has common lectures with PHY 151. PHY 161 does not satisfy the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 154 recommended.

PHY 162 - Fundamentals of Physics II (4)
Sound, light, electricity and magnetism. This course has common lectures with PHY 152. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): PHY 151 or 161 recommended.
Corequisite(s): MTH 155 recommended.

PHY 290 - Introduction to Research (2 or 4)
Independent study and/or research in physics for students with no research experience. May be repeated for additional credit.
Prerequisite(s): written agreement of a physics faculty supervisor.

PHY 304 - Astrophysics I (4)
Application of elementary physics to the study of planets, stars, galaxies and cosmology.
Prerequisite(s): recommended PHY 102 or 152, and MTH 254.

PHY 305 - Astrophysics II (4)
Continuation of PHY 304.
Prerequisite(s): PHY 304 recommended.

PHY 306 - Observational Astronomy (2)
Lecture/laboratory course providing basic training in astronomical techniques.
Prerequisite(s): instructor permission. PHY 158, PHY 104 or PHY 105 recommended.

PHY 307 – Geophysics (4)
The application of physics concepts to the study of the earth, gravity and its anomalies, geomagnetism, earth-sun energy, geochronology and seismic wave propagation.
Prerequisite(s): PHY 102 or PHY 152, PHY 106 and MTH 254 recommended.

PHY 308 - Physical Oceanography (4)
Physical oceanography and meteorology; composition and structure of the atmosphere and oceans. Interactions of sea water with the atmosphere, the continents and man.
Prerequisite(s): PHY 102 or PHY 152 and MTH 254 recommended.

PHY 317 - Modern Physics Laboratory (2)
Optics and atomic physics experiments.
Prerequisite(s): recommended PHY 110 and PHY 111.
Corequisite(s): recommended PHY 371.

PHY 318 - Nuclear Physics Laboratory (2)
Nuclear physics experiments.
Prerequisite(s): PHY 110 and PHY 111 recommended.
Corequisite(s): PHY 372 recommended.

PHY 325 - Biological Physics (4)
Applications of physics to biology, including biomechanics, fluid dynamics, statistical mechanics, diffusion, bioelectricity, biomagnetism, feedback and control.
Prerequisite(s): PHY 102 or PHY 152 and MTH 155 recommended.

PHY 326 - Medical Physics (4)
Applications of physics to medicine, including signal analysis, imaging, x-rays, nuclear medicine and magnetic resonance imaging.
Prerequisite(s): PHY 102 or PHY 152 and MTH 155 recommended.

PHY 331 – Optics (4)
Geometrical optics, optical instruments, wave theory of reflection, refraction, interference, diffraction and polarization of light.
Prerequisite(s): recommended PHY 102 or 152 and MTH 155.
Corequisite(s): recommended MTH 254.

PHY 341 – Electronics (4)
Electronics for scientists, circuit theory, transistors, power supplies, linear amplifiers, oscillators.
Prerequisite(s): PHY 158 and MTH 155 and either PHY 102 or PHY 152 recommended. Concurrent enrollment in PHY 347.

PHY 347 - Electronics Laboratory (2)
Circuits and electronics experiments.
Corequisite(s): PHY 341.

PHY 351 - Intermediate Theoretical Physics (4)
Topics and techniques common to intermediate physics courses. Includes analytical and numerical (computer) solution techniques, DIV, GRAD, CURL and Fourier analysis.
Prerequisite(s): recommended PHY 102 or 152, and MTH 155.

PHY 361 - Mechanics I (4)
Applications of Newton's laws to particles, systems of particles, harmonic oscillators, central forces, accelerated reference frames and rigid bodies.
Prerequisite(s): PHY 102 or PHY 152 and MTH 254 recommended.

PHY 366 - Vibrations and Waves (4)
Oscillations; mechanical waves in one, two and three dimensions; sound.
Prerequisite(s): PHY 152 and MTH 155 recommended.

PHY 371 - Foundations of Modern Physics (4)
Introduction to relativity, kinetic theory, quantization and atomic physics. Additional topics chosen from physics of molecules, solids, nuclei and elementary particles.
Prerequisite(s): PHY 102 or PHY 152 and MTH 155 recommended; concurrent enrollment in PHY 317.

PHY 372 - Nuclear Physics (4)
Radioactivity, interaction of radiations with matter, accelerators, nuclear reactions, fission and fusion.
Prerequisite(s): PHY 102 or PHY 152 and MTH 155 recommended; concurrent enrollment in PHY 318.

PHY 381 - Electricity and Magnetism (4)
Maxwell's equations and the experimental laws of electricity and magnetism. Potential theory, boundary conditions on the electromagnetic field vectors, field energy. Dielectrics, conductors and magnetic materials.
Prerequisite(s): recommended PHY 351 and MTH 254. APM 255 (or 257).

PHY 400 - Undergraduate Seminar (3)
Weekly colloquia describing research at the forefront of physics. Requires a written report. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): permission of instructor.

PHY 405 - Special Topics (2 to 6)
Prerequisite(s): permission of department.

PHY 418 - Modern Optics Laboratory (2)
Experiments illustrating geometric and physical optics principles, lasers, fiber optics, holography, and spectroscopy. Equipment used ranges from simple to sophisticated lasers, interferometers, digital cameras, and a Raman spectrometer.
Prerequisite(s): recommended PHY 317, 371 and PHY 331 or permission of instructor.

PHY 421 – Thermodynamics (4)
The zeroth, first and second laws of thermodynamics with applications to pure substances. Introduction to the kinetic theory of gases and to statistical mechanics.
Prerequisite(s): PHY 361 and APM 255 (or APM 257) recommended.

PHY 431 - Lasers and Applications (4)
Interaction of radiation and atomic systems, basic principles and properties of laser light, types of lasers, applications in physics, optical communication, industry and medicine.
Prerequisite(s): recommended PHY 331 or 371 or permission of instructor.

PHY 470 – Relativity (4)
Special relativity in mechanics and electromagnetism. Introduction to general relativity and gravitation.
Prerequisite(s): recommended PHY 361 or 371 or 381.

PHY 472 - Quantum Mechanics I (4)
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.
Prerequisite(s): recommended PHY 351, 361, 371 and APM 255 (or 257).

PHY 482 - Electricity and Magnetism II (4)
Multipole fields, solutions of Laplace and Poisson equations, electromagnetic waves in insulators and conductors, radiation and the derivation of the laws of optics from Maxwell's equations.
Prerequisite(s): recommended PHY 381, APM 255 (or 257) and MTH 256.

PHY 487 - Electricity and Magnetism Laboratory (2)
Experiments in electricity and in magnetism, including coupled circuits, bridges, creation and detection of electric and magnetic fields, the geomagnetic field, spectrum analysis, transmission lines and microwaves.
Corequisite(s): PHY 381.

PHY 490 - Independent Research (3 to 6)
Independent study or research project carried out under the direction of a faculty member. May be repeated for additional credit. Requires a written report. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Prerequisite(s): junior standing and written agreement with a physics faculty member.

SCI 100 - Physical Sciences in Life, the World and Beyond (4)
Interdisciplinary physical science course for non-science majors to enhance their scientific literacy and experience the scientific approach to problem solving in active-learning classrooms and hands-on in computer laboratories. Modules on the science of everyday life, science of the microscopic world, and the earth and beyond. Offered every semester. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): MTH 062 with a grade of 2.0 or higher or placement in higher level math course.

Department of Political Science

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(248) 370-2352
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Department Website: oakland.edu/polisci

Chairperson: *David A. Dulio*

Distinguished professor emeritus: *Sheldon Appleton*

Professors emeriti: *Thomas W. Casstevens, Robert J. Goldstein, Vincent B. Khapoya, William A. Macauley, Roger H. Marz*

Professors*: David A. Dulio, John S. Klemanski, Paul J. Kubicek*

Associate professors: *Douglas Carr, Matthew Fails, Diane Hartmus, Martha T. Kilmist-Zingo, Roger Larocca, Laura Landolt, Emmett Lombard, C. Michelle Piskulich, J. Patrick Piskulich, Terri L. Towner, Peter F. Trumbore, Julie Walters*

Assistant professors: *Nicole Asmussen, Cristian Cantir, Diana Orces, Marina Saitgalina*

Special instructor: *Alan David Epstein*

Internship directors: *Diane Hartmus (Public Administration), Julie Walters (Political Science and International Relations)*

Political science offers a concentrated and systematic study of politics at all levels of government and in many different cultural and national settings. Policy making, political institutions, law, political behavior, administration, international politics, foreign governments, and theories and philosophies of government are among the many topics covered in the department's course offerings. The aim of the department's general educational courses is to increase students' awareness and understanding of the broad realm of politics and government. Many students electing a major from the Department of Political Science wish 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.

The Bachelor of Arts degree with a major in political science is the department's broadest program and is appropriate for students with an interest in government and politics or students who intend to enter law school or graduate school. The Bachelor of Arts degree with a major in international relations is a multidisciplinary major, which is housed in the Department of Political Science, and focuses on global politics, economics, history and philosophy. This major is ideal for students interested in working with a multinational corporation, an international development agency or a government institution such as the Department of State. The department also offers a major in public administration leading to the Bachelor of Science degree. This program is designed to provide appropriate analytical skills and prepare students for direct entry into public service or for specialized graduate programs in public administration and public policy. The Master of Public Administration degree is also offered by the department (see the Oakland University Graduate Catalog), which is a member of the National Association of Schools of Public Affairs and Administration (NASPAA).

Requirements for the liberal arts major in political science, B.A. program

The major requires a minimum of 44 credits in political science as outlined below. Credit toward the major will only be allowed for courses completed with a grade of 2.0 or higher.

A. Core courses

- PS 100 - Introduction to American Politics (4)
- PS 114 - Issues in World Politics (4) or PS 131 - Comparative Politics (4)
- PS 250 - The Research Process in Political Science (4)
- PS 255 - Data Analysis in Political Science (4)

One capstone course selected from

- PS 470 - Seminar in American Politics (4)
- PS 472 - Seminar in International Relations (4)
- PS 476 - Seminar in the Comparative Study of Political Systems (4)

B. At least one course selected from each of the three fields of political science, chosen from the following

1. American politics

- PS 300 - American Political Culture (4)
- PS 301 - American Presidency (4)
- PS 302 - Congress and the Legislative Process (4)
- PS 305 - Local Government and Politics (4)
- PS 306 - Special Topics in American Politics (2 OR 4)
- PS 307 - State Politics (4)
- PS 309 - Politics Through Film (4)
- PS 310 - Political Leadership (4)
- PS 311 - Women and Politics (4)
- PS 312 - The Politics of Race and Ethnicity (4)
- PS 316 - Michigan Government Politics and Policy (4)
- PS 319 - Politics and the Internet (4)
- PS 320 - Conducting Political Surveys (4) (may satisfy the American politics field requirement or the comparative and international politics field requirement, but not both)
- PS 322 - Political Parties and Interest Groups (4)
- PS 324 - Elections and Voting Behavior (4)
- PS 325 - Public Opinion (4)
- PS 326 - Political Campaigns (4)
- PS 327 - Media and Politics (4)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 342 - The Judicial Process (4)
- PS 343 - Gender Discrimination and the Supreme Court (4)
- PS 347 - Law and Politics (4)
- PS 350 - Public Administration (4)
- PS 352 - Geographic Information System Analysis for Sustainability (4)
- PS 353 - American Public Policy (4)
- PS 356 - Religion and Politics (4)
- PS 359 - Public Policy and Health Care (4)

2. Comparative and international politics

- PS 308 - Special Topics in Comparative Politics and International Relations (1 TO 4)
- PS 313 - Comparative Foreign Policy (4)
- PS 314 - International Politics: Theory and Practice (4) (may satisfy the comparative and international politics field requirement or the political theory and political thought field requirement, but not both)

- PS 315 - United States Foreign Policy (4)
- PS 317 - International Politics of Human Rights (4)
- PS 320 - Conducting Political Surveys (4) (may satisfy the American politics field requirement or the comparative and international politics field requirement, but not both)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 329 - European Political Systems (4)
- PS 330 - Politics of Development (4)
- PS 332 - Politics of the Middle East and North Africa (4)
- PS 333 - African Politics (4)
- PS 334 - Political Systems of Asia (4)
- PS 335 - Politics of Latin America (4)
- PS 336 - Dictatorships (4)
- PS 337 - The Russian Political System (4)
- PS 338 - International Political Economy (4)
- PS 339 - Revolution, Intervention, and Democratization (4)
- PS 354 - Global Environmental Governance (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- PS 361 - International Organizations (4)
- PS 362 - Model United Nations (2 OR 4) (may be taken up to two times for a total of four credits toward the political science major)
- PS 363 - Global Democratization (4)
- PS 364 - Gender and Int'l Relations (4)
- PS 365 - International Conflict and Security (4)
- PS 366 - International Negotiation and Bargaining (4)
- PS 367 - Globalization and International Economic Institutions (4)

3. Political theory and political thought

- PS 314 - International Politics: Theory and Practice (4) (may satisfy the comparative and international politics field requirement or the political theory field requirement, but not both)
- PS 321 - Systematic Political Analysis (4)
- PS 371 - American Political Thought (4)
- PS 372 - Western Political Thought I (4)
- PS 373 - Western Political Thought II (4)
- PS 374 - Politics through Literature (4)
- PS 377 - Communism (4)

C. The remaining credits are elective courses with the following restrictions

- Only 4 credits of PS 362 - Model United Nations (2) will be accepted toward the major.
- No more than a total of 12 credits of PS 390, PS 459 and PS 490 will be accepted toward the major.
- No more than 4 credits of PS 459 may be counted toward the major in political science. Applicants must seek departmental approval at the beginning of the semester prior to that of the internship by contacting Professor Julie Walters.

Note:

Students using this catalog to meet political science major requirements may also use any course subsequently approved as satisfying requirements in the American politics, comparative and international politics, and political theory and political thought categories and published in a later catalog.

Requirements for the liberal arts major in international relations, B.A. program

The major requires a minimum of 46-50 credits, with a possible 62-66 depending upon a student's competency in foreign language. Credit toward the major will be allowed only for courses completed with a grade of 2.0 or higher.

A. Core

- PS 114 - Issues in World Politics (4)
- PS 131 - Comparative Politics (4)
- PS 314 - International Politics: Theory and Practice (4)
- PS 250 - The Research Process in Political Science (4)
- PS 255 - Data Analysis in Political Science (4)
- ECN 202 - Principles of Global Macroeconomics (4) or ECN 210 - Principles of Economics (6)

A capstone course selected from

- PS 472 - Seminar in International Relations (4)
- PS 476 - Seminar in the Comparative Study of Political Systems (4)

B. Electives in political science - 12 credits selected from

- PS 308 - Special Topics in Comparative Politics and International Relations (1 TO 4)
- PS 313 - Comparative Foreign Policy (4)
- PS 315 - United States Foreign Policy (4)
- PS 317 - International Politics of Human Rights (4)
- PS 320 - Conducting Political Surveys (4)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 329 - European Political Systems (4)
- PS 330 - Politics of Development (4)
- PS 332 - Politics of the Middle East and North Africa (4)
- PS 333 - African Politics (4)
- PS 334 - Political Systems of Asia (4)
- PS 335 - Politics of Latin America (4)
- PS 336 - Dictatorships (4)
- PS 337 - The Russian Political System (4)
- PS 338 - International Political Economy (4)
- PS 339 - Revolution, Intervention, and Democratization (4)
- PS 354 - Global Environmental Governance (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- PS 361 - International Organizations (4)
- PS 362 - Model United Nations (2 OR 4) (may be taken up to two times for a total of four credits toward the international relations major)
- PS 363 - Global Democratization (4)
- PS 364 - Gender and Int'l Relations (4)
- PS 365 - International Conflict and Security (4)
- PS 366 - International Negotiation and Bargaining (4)
- PS 367 - Globalization and International Economic Institutions (4)

C. Electives in economics, history, philosophy - 6-8 credits

- ECN 201 - Principles of Microeconomics (4)
- ECN 326 - International Economic Development (3)
- ECN 373 - International Trade (3)
- ECN 374 - Economics of Intl Finance (3)
- HST 262 - Introduction to Latin American History since 1825 (4)

- HST 320 - Cold War America, 1945-1990 (4)
- HST 321 - History of American Foreign Relations in the Twentieth Century (4)
- HST 335 - Britain, 1911 to Present (4)
- HST 341 - Europe since 1914 (4)
- HST 343 - Germany since 1740 (4)
- HST 344 - Modern Italy: National Unification and the 20th Century (4)
- HST 352 - Nationalism in Modern Europe (4)
- HST 354 - History of Modern Russia (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- HST 358 - The Cold War in the Middle East (4)
- HST 359 - Modern Iran and Iraq (4)
- HST 363 - History of Argentina, Brazil, and Chile (4)
- HST 371 - Twentieth-Century Japan (4)
- HST 376 - China Since 1949 (4)
- HST 383 - Postcolonial Conflicts in African History (4)
- HST 386 - Modern African History Since 1800 (4)
- HST 389 - African Environmental History (4)
- HST 394 - Latin American Revolutions (4)
- HST 395 - Indigenous Movements in Latin America, 1492-Present (4)
- HST 424 - The U.S. and the War in Vietnam (4)
- PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
- PHL 320 - Global Justice (4)

D. Foreign language corequisite - 16 credits or equivalency

Students must complete two years of a single modern foreign language or demonstrate equivalent competency at the second year level in a single modern foreign language.

Note

Students using this catalog to meet international relations major requirements may also use any course subsequently approved as satisfying requirements in the electives categories and published in a later catalog.

Requirements for the liberal arts major in public administration and public policy, B.S. program

Students must complete a minimum of 46 credits for the major. Credit toward the major will be allowed only for courses and corequisites completed with a grade of 2.0 or higher.

A. Core courses

- PS 100 - Introduction to American Politics (4)
- PS 114 - Issues in World Politics (4) or PS 131 - Comparative Politics (4)
- PS 250 - The Research Process in Political Science (4)
- PS 255 - Data Analysis in Political Science (4)

B. Sequence of departmental courses

- PS 257 - Public Affairs Careers Orientation (2)
- PS 350 - Public Administration (4)
- PS 351 - Public Administration Financial Analysis (4)
- PS 353 - American Public Policy (4)

- PS 406 - Government and the Economy (4)
- PS 453 - Public Budgeting (4)
- PS 454 - Public Sector Human Resource Management (4)
- PS 458 - Public Administration Internship (4) Enrollment in this capstone course must be preceded by consultation with the internship director. In those cases where the internship requirement is waived, the student must elect an alternative 4-credit capstone course, subject to approval of the department.

Requirements for liberal arts minor in political science

To earn a minor in political science, students must complete a minimum of 20 credits in political science, with at least eight credits at the 300-400 level. Credit toward the minor will be allowed only for courses completed with a grade of 2.0 or higher.

Note:
Students majoring in public administration who wish to earn a minor in political science must complete a minimum of 16 additional credits in political science beyond those required for a major in public administration.

Students majoring in international relations who wish to earn a minor in political science must complete a minimum of 12 additional credits in American politics and/or political theory (see B.1 and B.3 under the Political Science, B.A., for choices).

Requirements for the liberal arts minor in international relations

The liberal arts minor in international relations requires 22-26 credits, plus one year of a single modern foreign language as a corequisite. This includes 12-14 credits of required core courses and 10-12 credits of elective courses. The electives must be taken in at least two different disciplines, one of which must be political science [students may take one political science course (4 credits) and two non-political science courses (6-8 credits) or two political science courses (8 credits) and one non-political science course (3-4 credits) to reach the 10-12 credit total]. Credit toward the minor will be allowed only for courses completed with a grade of 2.0 or higher.

Core courses - 12-14 credits

- PS 114 - Issues in World Politics (4)
- PS 314 - International Politics: Theory and Practice (4)
- ECN 202 - Principles of Global Macroeconomics (4) or ECN 210 - Principles of Economics (6)

Electives in political science - 4 credit minimum, 8 credit maximum

- PS 308 - Special Topics in Comparative Politics and International Relations (1 TO 4)
- PS 313 - Comparative Foreign Policy (4)
- PS 315 - United States Foreign Policy (4)
- PS 317 - International Politics of Human Rights (4)
- PS 320 - Conducting Political Surveys (4)
- PS 328 - Chinese Politics and Foreign Policy (4)
- PS 329 - European Political Systems (4)
- PS 330 - Politics of Development (4)
- PS 332 - Politics of the Middle East and North Africa (4)
- PS 333 - African Politics (4)
- PS 334 - Political Systems of Asia (4)
- PS 335 - Politics of Latin America (4)
- PS 336 - Dictatorships (4)
- PS 337 - The Russian Political System (4)
- PS 338 - International Political Economy (4)
- PS 339 - Revolution, Intervention, and Democratization (4)

- PS 354 - Global Environmental Governance (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- PS 361 - International Organizations (4)
- PS 362 - Model United Nations (2 OR 4)
  (may be taken up to two times for a total of four credits toward the international relations minor)
- PS 363 - Global Democratization (4)
- PS 364 - Gender and Int'l Relations (4)
- PS 365 - International Conflict and Security (4)
- PS 366 - International Negotiation and Bargaining (4)
- PS 367 - Globalization and International Economic Institutions (4)

Electives in economics, history or philosophy - 3-4 credit minimum; 6-8 credit maximum

- ECN 201 - Principles of Microeconomics (4) or ECN 210 - Principles of Economics (6)
- ECN 326 - International Economic Development (3)
- ECN 373 - International Trade (3)
- ECN 374 - Economics of Intl Finance (3)
- HST 262 - Introduction to Latin American History since 1825 (4)
- HST 320 - Cold War America, 1945-1990 (4)
- HST 321 - History of American Foreign Relations in the Twentieth Century (4)
- HST 335 - Britain, 1911 to Present (4)
- HST 341 - Europe since 1914 (4)
- HST 343 - Germany since 1740 (4)
- HST 344 - Modern Italy: National Unification and the 20th Century (4)
- HST 352 - Nationalism in Modern Europe (4)
- HST 354 - History of Modern Russia (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- HST 358 - The Cold War in the Middle East (4)
- HST 359 - Modern Iran and Iraq (4)
- HST 363 - History of Argentina, Brazil, and Chile (4)
- HST 376 - China Since 1949 (4)
- HST 383 - Postcolonial Conflicts in African History (4)
- HST 386 - Modern African History Since 1800 (4)
- HST 389 - African Environmental History (4)
- HST 394 - Latin American Revolutions (4)
- HST 395 - Indigenous Movements in Latin America, 1492-Present (4)
- HST 424 - The U.S. and the War in Vietnam (4)
- PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
- PHL 320 - Global Justice (4)

Corequisite

Students must complete one year of a single modern foreign language or demonstrate equivalent competency at the first year level in a single modern foreign language.

Note

Students using this catalog to meet international relations minor requirements may also use any course subsequently approved as satisfying requirements in the electives categories and published in a later catalog.

Requirements for the liberal arts minor in public administration and public policy

To earn a liberal arts minor in public administration and public policy, students must complete a minimum of 20 credits. Credit toward the minor will be allowed only for courses completed with a grade of 2.0 or higher.

Required courses

- PS 350 - Public Administration (4)
- PS 353 - American Public Policy (4)
- PS 453 - Public Budgeting (4)
- PS 454 - Public Sector Human Resource Management (4)

One additional course, selected from

- PS 301 - American Presidency (4)
- PS 302 - Congress and the Legislative Process (4)
- PS 305 - Local Government and Politics (4)
- PS 307 - State Politics (4)
- PS 342 - The Judicial Process (4)
- PS 347 - Law and Politics (4)
- PS 351 - Public Administration Financial Analysis (4)

Note

Students using this catalog to meet public administration and public policy minor requirements may also use any course subsequently approved as satisfying the elective course option and published in a later catalog.

Requirements for the secondary teaching minor in political science

The secondary teaching minor in political science requires 24 credits in political courses, including

1. Required courses

- PS 100 - Introduction to American Politics (4)

And one of the following

- PS 302 - Congress and the Legislative Process (4)
- PS 342 - The Judicial Process (4)

2. One course from any four of the following six groupings:

State and local government

- PS 305 - Local Government and Politics (4)
- PS 307 - State Politics (4)

Political behavior

- PS 322 - Political Parties and Interest Groups (4)
- PS 324 - Elections and Voting Behavior (4)
- PS 325 - Public Opinion (4)
- PS 327 - Media and Politics (4)

Public administration and public policy

- PS 350 - Public Administration (4)
- PS 353 - American Public Policy (4)

International relations and comparative politics

- PS 114 - Issues in World Politics (4)
- PS 131 - Comparative Politics (4)

Political philosophy

- PS 371 - American Political Thought (4)
- PS 372 - Western Political Thought I (4)
- PS 373 - Western Political Thought II (4)
- PS 374 - Politics through Literature (4)

Cross-cultural perspectives

- PS 300 - American Political Culture (4)
- PS 311 - Women and Politics (4)
- PS 356 - Religion and Politics (4)

Accelerated Public Administration and Public Policy Bachelor of Science to Master of Public Administration Program (B.S. to M.P.A)

The Accelerated Public Administration and Public Policy, B.S. to 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 B.S. to M.P.A. allows students to take three graduate level courses, PA 501, PA 553 and PA 554, while still an undergraduate and pay undergraduate tuition rates. Within the B.S. requirements, PA 501 replaces PS 350. PA 553 replaces PS 453, and PA 554 replaces PS 454.

To be eligible for the Public Administration and Public Policy, B.S. to M.P.A. option, students must:

1.Have earned a minimum cumulative grade point average of 3.2 or higher, completed at least six classes of the undergraduate program major courses and earned a minimum 3.0 grade in the following two courses:

PS 351 - Public Administration Financial Analysis
PS 353 - American Public Policy

2.Apply for and receive delayed admission into the MPA program thereby the substitution of graduate classes PA 501, PA 553, PA 554 in place of three undergraduate classes, PS 350, PS 453, PS 454. Note: Students must receive formal acceptance into the program to be eligible to register for PA 501, PA 553, and PA 554.

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.

To apply to the B.S. to M.P.A. program, contact Suzanne Rossi, M.P.A. coordinator.

Additional information

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums.

Note
STEP minors in political science who have transferred a 3-credit American Government course must complete either PS 302 - Congress and the Legislative Process or PS 311 - Women or Politics. Either of these courses also can serve to meet part of the 24 credits of requirements noted above. Students must consult with the secondary education minor adviser in the department.

Departmental Honors and Scholarships

Departmental honors will be awarded competitively to selected students from among those who have attained an overall grade point average of at least 3.30 and a minimum grade point average of 3.70 for courses in political science. Scholarships are available annually on a competitive basis to qualified department majors.

Requirements for a major in political science with other concentrations

Students in political science may pursue a regular major in political science with a number of interdepartmental concentrations. These include American studies, environmental studies and urban studies.

Recommended Courses for Pre-Law Students

It is recommended that political science majors interested in law school elect the law-related courses offered by the department. These include, but are not limited to: PS 340 - U.S. Constitutional Law, PS 341 - Civil Rights and Civil Liberties, PS 342 - The Judicial Process, PS 343 - Gender Discrimination and the Supreme Court and PS 347 - Law and Politics. For advice in planning for law school, contact the department's pre-law adviser, Julie Walters. The student should also consult the Pre-law Studies website, accessible through the department's webpage, as well as the associated section of this catalog.

Advanced Seminars

From time to time, the department offers advanced seminars in which a topic or problem is studied in depth, and in which significant individual student research is presented for analysis.

- PS 474 (Inactive) Seminar in Political Behavior (4)
- PS 478 (Inactive) Seminar in Public Law (4)
- PS 480 (Inactive) Seminar in Political Theory (4)
- PS 482 (Inactive) Seminar in Public Administration: Strategies and Policies (4)
- PS 484 (Inactive) Seminar in Public Policy (4)

Additional Information

Students are limited to 8 credits of independent study (PS 390 or PS 490) in any one semester. Applicants must seek departmental approval at the beginning of the semester prior to that of the internship. Public administration majors are required to complete 4 credits of PS 458, but no more than 4 credits of PS 459 may be counted toward the major in political science or international relations. Permission forms are available in 418 Varner Hall.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

PS 100 - Introduction to American Politics (4)
The decision-making process in the American national government and the ways in which parties, groups, and individuals work to produce public policy in Congress, the presidency and the courts. Satisfies the university general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

PS 114 - Issues in World Politics (4)
Introduction to the study of world politics and the main issues confronting the international community in the 21st century. Emphasis on the impact of cultural, economic, and political globalization on international politics and individual lives. Satisfies the university general education requirement in the social sciences knowledge exploration area or in the global perspective knowledge exploration area, not both.

PS 131 - Comparative Politics (4)
Introduction to major modern political systems and concepts. Comparative analysis of the organization and operation of politics and government in different countries. Satisfies the university general education requirement in the social science knowledge exploration or in the global perspective knowledge area, not both. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 250 – The Research Process in Political Science (4)
Fundamentals of research in political science including various approaches to studying political phenomena.
Prerequisite(s): PS 100, PS 114, or PS 131.

PS 255 - Data Analysis in Political Science (4)
Basic applications of statistics in political science including why and how certain methods are used to explore political phenomena.
Prerequisite(s): PS 250.

PS 257 - Public Affairs Careers Orientation (2)
Planning for public service careers; the varieties of public service careers and the alternative of pursuing advanced degrees are explored. Examples and practical problems from agency work are examined through case studies and presentations by practitioners and professional administrators.

PS 300 - American Political Culture (4)
A study of the main themes in American culture and the ways in which they affect the political beliefs, attitudes, opinions and behaviors of Americans. Key themes include individualism, the drive for success, racial attitudes, the American sense of a special mission in the world and American beliefs about democracy.

PS 301 - American Presidency (4)
A study of presidential politics, decision making and leadership in the American political system.

PS 302 - Congress and the Legislative Process (4)
Examination of the United States Congress with particular attention to the creation of the institution, running for Congress, behavior of members of Congress, and the pressures faced by our elected representatives.

PS 305 - Local Government and Politics (4)
Study of local governments; political, economic and demographic forces; trends in metropolitan and suburban politics; and problems of planning in an age of urbanization and suburbanization.

PS 306 - Special Topics in American Politics (2 or 4)
From time to time, the department offers courses on special topics in response to current issues in various subfields of the discipline.

PS 307 - State Politics (4)
Comparative analysis of the variations and similarities of the political systems of the 50 states, the policy-making structures, political participation and contemporary public policy issues.

PS 308 - Special Topics in Comparative Politics and International Relations (1 to 4)
From time to time the department offers courses on special topics in response to current issues in various subfields of the discipline. May be repeated under different subtitle.

PS 309 - Politics through Film (4)
Analyzes political ideas, concepts, theories, public policy, political behavior and visions of politics and society as presented in film.

PS 310 - Political Leadership (4)
Study of the theory and practice of political leadership, including its origins, ancient and modern conceptions, the causes of successful and failed leadership, the role of followers, and the possibility of politics without leadership. Detailed case studies of prominent leaders in American politics will be examined.

PS 311 - Women and Politics (4)
Examines the role of women in politics including political participation and representation. Additional topics will include women and public issues (such as affirmative action and comparable worth), as well as an introduction to feminist political thought. Identical with WGS 311.

PS 312 - The Politics of Race and Ethnicity (4)
A study of racial and ethnic groups and their role in the political process in the U.S. Emphasis will be placed on the political experience and the struggle for equal rights by major minority groups such as Blacks, Hispanics and Native Americans. Note: may not be taken for credit by students who have taken PS 203. Satisfies the general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of university writing foundation requirement.

PS 313 - Comparative Foreign Policy (4)
An examination of the major theoretical debates in the field of foreign policy analysis, with a focus on the relative impact of domestic and international factors on the decision-making process and the behavior of states. Theoretical matters will be explored in the comparative analysis of the foreign policy of global and regional powers in the international system.

PS 314 - International Politics: Theory and Practice (4)
Examination of the central theoretical and conceptual approaches to the study of international politics, and a focused exploration of how those contending approaches account for specific international phenomena such as war and peace, economic interaction, and the emergence of international organizations and global governance. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PS 114.

PS 315 - United States Foreign Policy (4)
Examination of American foreign policy process, focusing on the impact of domestic societal, political and bureaucratic determinants of foreign policy and the constraints imposed by the international system. Main instruments of foreign policy, for instance, diplomacy, military power, economic statecraft, overt action, are considered and evaluated.

PS 316 - Michigan Politics (4)
Michigan's state governmental institutions, its constitution and intergovernmental relations (both federal and local levels), political actors and processes, and selected public policies.

PS 317 - International Politics of Human Rights (4)
Development of international human rights norms, the central debates and controversies: their application and enforcement in international politics. Focus on the evolution of the definition of human rights and its affect on the emerging international human rights regime.

PS 319 - Politics and the Internet (4)
Analyzes the role and impact of the Internet in the political world including e-government, political ideas, the political blogosphere, the "digital divide,' and net neutrality.

PS 320 - Conducting Political Surveys (4)
Overview of the history and approaches to survey research. Students will gain experience in planning and implementing survey projects and interpreting responses.
Prerequisite(s): PS 303.

PS 321 - Systematic Political Analysis (4)
Study of selected formal (i.e., logical and mathematical) models in political science. An introduction to the methodology of social science research.

PS 322 - Political Parties and Interest Groups (4)
Study of political parties and interest groups in democracies, focusing on the U.S. experience. Examination of parties and groups as political linkages, and their role in aggregating interests. Not open to students who have received credit for PS 470, Political Parties & Interest Groups.

PS 324 - Elections and Voting Behavior (4)
Study of electoral systems and the voting behavior of individuals and groups, with special attention to U.S political experience. Not open to students who have received credit for PS 324, Political Parties and Elections.

PS 325 - Public Opinion (4)
Study of the opinions, attitudes, and political activities of people belonging to different demographic segments of the population. Not open to students who have received credit for PS 325, Demography of American Politics.

PS 326 - Political Campaigns (4)
A study of political campaigns, with classroom exercises and the opportunity for fieldwork on current political campaigns. The role and influence of the media on campaigns.

PS 327 - Media and Politics (4)
The role of the media in influencing political attitudes and agendas, media coverage of issues and campaigns, media and the law, the nature of the media industry, and governmental regulation of broadcast media.

PS 328 - Chinese Politics and Foreign Policy (4)
Examination of the political system and policies of contemporary China, covering the rise of communism in China, reforms to the communist system, political institutions, political culture, and foreign policy.

PS 329 - European Political Systems (4)
An analysis of politics within and between nations in Europe. Selected institutions and processes are examined in detail. A comparative point of view is emphasized.

PS 330 - Politics of Development (4)
Examination of the issues that relate to social, political and economic development in countries undergoing dramatic social change.

PS 332 - Politics of the Middle East and North Africa (4)
The cultural and historical factors that influence contemporary politics of the area will be emphasized. Topics include religion, social structures, economic problems, the impact of the West and the Arab-Israeli conflict.

PS 333 - African Politics (4)
Examination of politics of selected African states. Primary focus is on the evolution of political institutions since independence. The impact of indigenous traditions and the colonial heritage on that evolution is assessed. Individual, groups and institutions involved in the political process are studied.

PS 334 - Political Systems of Asia (4)
Elements of political life in China, Japan, India, and other Asian countries. Cultural, historical, social, and economic factors that influence and are influenced by contemporary political institutions Processes by which political conflicts are resolved.

PS 335 - Politics of Latin America (4)
Analysis of Latin American political systems and the historical, social and economic factors underlying them. The major countries are studied intensively, and a comparative approach is used to examine the variations from democracy to dictatorship and the political instability that characterizes the area.

PS 336 – Dictatorships (4)
Contemporary dictatorships, why they emerge, how they function, and the various strategies that may lead to their collapse.

PS 337 - The Russian Political System (4)
A descriptive analysis of the Russian society as a political system: its origins, institutions and political behavior. Trends and developments in the system will be assessed, and comparisons with other political systems will be undertaken. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 338 - International Political Economy (4)
Examination of the relationship between political and economic structure, organization, and events, including issues such as the politics of trade and investment, regional integration, behavior of multinational corporations, and economic development.

PS 339 - Revolution, Intervention, and Democratization (4)
Examination of revolution and counterrevolution as products of U.S. efforts to fashion and preserve a liberal international order involving systematic interference in the affairs of sovereign countries. Focus is on the motivations, methods, and consequences of official and sponsored intervention on a global scale. “Democracy promotion” is afforded special consideration.

PS 340 - U.S. Constitutional Law (4)
Broad survey of U.S. constitutional law as interpreted by the U.S. Supreme Court, with focus on analyzing original court opinions regarding the powers of the federal government and the interaction between federal and state governments; examines political factors that have shaped our understanding of the Constitution.

PS 341 - Civil Rights and Civil Liberties (4)
Broad survey of legal rights and liberties of individuals in the U.S., as interpreted by the U.S. Supreme Court, with focus on analyzing original court opinions regarding constitutional and political conflicts arising between individuals and the government; political factors that have influenced major judicial decisions are examined.

PS 342 - The Judicial Process (4)
Study of judicial behavior and decision making in federal courts with an emphasis on the role of courts in developing public policies.

PS 343 - Gender Discrimination and the Supreme Court (4)
Examines Supreme Court cases throughout history involving gender discrimination. Students will read and discuss case excerpts on issues such as protective legislation, sex discrimination, pregnancy and childbirth, sexual harassment and reproductive rights. Students will also examine the lives and legacies of women justices. Identical with WGS 343.

PS 347 - Law and Politics (4)
Broad survey of law and legal systems in the U.S. that presents law as a dynamic, multifaceted discipline. Emphasis is placed on the open-ended quality of law and legal knowledge, despite the definitive nature of legal authority. A problem-solving approach is adopted to provoke critical discussion.

PS 350 - Public Administration (4)
Study of government in action, with special attention to policy formulation, organization, personnel administration, supervision, coordination, administrative control and accountability. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PS 100.

PS 351 - Public Administration Financial Analysis (4)
Study of accounting and reporting concepts, standards and procedures applicable to city, county, state, and federal governments and non-profit institutions.

PS 352 - Geographic Information System Analysis for Sustainability (4)
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. Identical with ENV 352.

PS 353 - American Public Policy (4)
Examines the factors and actors involved in the development and implementation of public policy. Topics may include environment, education, economic development, defense, health care, welfare policy and ethical analysis of policy.

PS 354 - Global Environmental Governance (4)
Overview of inter-related environmental and resource issues at the regional and global levels. Current institutions, laws and policies for addressing issues including global warming, climate change, biodiversity/species decline, trade/environment linkages, water resources, depletion of global fisheries and rainforests. Identical with ENV 354. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the university general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 356 - Religion and Politics (4)
Study of the intersection of religion and American politics, with emphasis on religion's role in the nation's founding, political participation, the institutions of national government, and current public policy debates.

PS 359 - Public Policy and Health Care (4)
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.

PS 360 - International Terrorism: Causes, Consequences, Responses (4)
Exploration of terrorist motivation and ideology, methods, and the effectiveness of international and state-level responses to terrorist challengers.

PS 361 - International Organizations (4)
Examination of major international organizations such as the United Nations, the World Trade Organization, the European Union, and regional organizations. Explanation of how these organizations fit into international relations theory and how they affect world politics today.

PS 362 - Model United Nations (2 or 4)
Examination of the United Nations (UN) system and issues currently confronting UN bodies. Includes participation in regional or national Model UN conference. May be repeated once for PS or IR credit and up to two additional times for elective credit toward the degree.
Prerequisite(s): permission of department.

PS 363 - Global Democratization (4)
Examination of movement toward democratic forms of government in various parts of the world and of those factors that promote or inhibit democracy.

PS 364 - Gender and International Relations (4)
Examination of major gender critiques of mainstream IR theory and the ways in which gender analysis expands both theory and practical political analysis at the international and global levels.

PS 365 - International Conflict and Security (4)
Examination of the conditions that make for war and peace in world politics, and of the range of possible approaches that might help to manage or prevent conflict in the future. Factors contributing to conflict within and between states are considered.

PS 366 - International Negotiation and Bargaining (4)
Negotiation theories and practice, focusing on understanding differing approaches to negotiation and explaining bargaining outcomes. Emphasis on hands-on learning through simulation, role-playing exercises, and case analysis.

PS 367 - Globalization and International Economic Institutions (4)
Broad survey of contemporary political debates on globalization, including trade and jobs, investment and labor rights, poverty, inequality and economic development, and pro- and anti-globalization movement. Special attention will be given to how governments and international organizations, such as the International Monetary Fund, the World Bank, the World Trade organization and their regional counterparts, operate.

PS 371 - American Political Thought (4)
Survey of the writings of American thinkers who influenced the development of the American polity. Examines the political, legal and cultural origins of this country. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 372 - Western Political Thought I (4)
Analyzes the writings of Western political theorists from 600 B.C. to 1500 A.D.; systematically examines the political, legal, economic, social, cultural and religious elements that influenced the ideas and policies postulated; and scrutinizes the assumptions behind deeply rooted modes of thought that continue to affect people's lives. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 373 - Western Political Thought II (4)
Analyzes the writings of Western political theorists from 1500 A.D. to the present; systematically examines the political, legal, economic, social, cultural and religious elements that influenced the ideas and policies postulated; and criticism. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 374 - Politics through Literature (4)
Use of literary works (novels, short stories, plays, essays) to examine a range of social and political systems in specific settings. Analysis of how political and cultural backgrounds of various authors have been conveyed in their writings. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 377 – Communism (4)
The development of revolutionary socialism from early Marxism to the present. The course analyzes the relevance of Marxism to a variety of contemporary revolutionary situations. Satisfies the university general education requirement in the Western civilization knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PS 390 - Independent Study (2 or 4)
Readings not normally covered in existing course offerings. Directed on an individual basis.
Prerequisite(s): permission of department and instructor.

PS 406 - Government and the Economy (4)
Role of government in the economy, including an examination of federal, local, and international fiscal and monetary policies.

PS 453 - Public Budgeting (4)
Politics and process of budgeting in public organizations, especially as they relate to the control of policy. Specific techniques are discussed for developing, approving, administering and auditing budgets.

PS 454 - Public Sector Human Resource Management (4)
Study of the procedures, techniques and problems of personnel administration in public agencies; evolution of the modern civil service system, merit principle, and responses to collective bargaining and equal opportunity programs.

PS 455 - Comparative Public Administration (4)
Comprehensive exploration of the political and policy-making roles of public bureaucracies around the world stressing the effects of politics and organized interests on bureaucracy.

PS 458 - Public Administration Internship (4)
Supervised student internship with governmental, political, criminal justice or other public agency. Reports and analyses of work performed at agency required. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PS 257 and PS 350, junior standing and permission of instructor.

PS 459 - Political Science/International Relations Internship (4)
Supervised student internship with governmental, political, criminal justice, or other public agency. Reports and analyses of work performed at agency required. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of internship director.

PS 470 - Seminar in American Politics (4)
Advanced seminar in a special topic related to American politics. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PS 100 and PS 255 and permission of major adviser.

PS 472 - Seminar in International Relations (4)
Advanced seminar in a special topic related to international relations. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PS 114, PS 255, and PS 314 and permission of major adviser.

PS 476 - Seminar in the Comparative Study of Political Systems (4)
Advanced seminar in a special topic related to comparative politics. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PS 131 and PS 255 and permission of major adviser.

PS 490 - Special Topics or Directed Research (2 to 8)
Prerequisite(s): permission of the instructor.

PS 497 - College Teaching Apprenticeship (4)
Affords the opportunity for qualified students to deepen their understanding of selected topics in political science and ways of teaching politics by assisting an instructor in teaching a 100-level political science course and writing a critique of this experience. May be taken only once for credit.
Prerequisite(s): permission of instructor and department chair.

Department of Psychology

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(248) 370-2300
Fax: (248) 370-4612
Department Website: oakland.edu/psychology

Chairperson: *Todd K. Shackelford*

Professors emeriti: *Jean S. Braun, Daniel N. Braunstein, Harvey Burdick, Christine Hansen, Algea Harrison, Theodore Landau, Ralph Schillace, David W. Shantz*

Professors: *Kevin Corcoran, George W. Hynd, Dean G. Purcell, Todd K. Shackelford, Robert B. Stewart, Jr.*

Associate professors: *Martha Escobar, Andrea T. Kozak, Mary B. Lewis, Debra McGinnis, Lakshmi Raman, Cynthia Sifonis, Kanako Taku, Jennifer Vonk, Keith L. Williams, Virgil Zeigler-Hill*

Assistant professors*: Melissa McDonald, Scott Pickett, Michele Parkhill Purdie, Lisa Welling*

Chief adviser: *Mary B. Lewis*

The Department of Psychology offers undergraduate programs leading to the Bachelor of Arts degree. The psychology curriculum is structured to meet the needs of four types of students interested in majoring in psychology: students who plan to find employment after obtaining the bachelor's degree, students who plan to go to graduate school in psychology, students who plan to enter a field other than psychology that requires further formal training and students who have a general interest in psychology. A pamphlet, ''Majoring in Psychology at Oakland University,'' is available in the department office. Students planning to major in psychology should obtain a copy of this pamphlet, which offers suggested programs of study.

Coursework more than 10 years old is not automatically accepted for credit toward the major. The department reserves the right to review such courses before accepting them for credit toward the major. An examination may be required to demonstrate proficiency in the areas covered by such courses.

Requirements for the liberal arts major in psychology, B.A. program

To earn the Bachelor of Arts with a major in psychology, students must complete a minimum of 44 credits in psychology with a minimum GPA of 2.00 over all psychology courses and must satisfy the following requirements:

1. Required courses (12 Credits)

- PSY 100 - Introduction to Psychology (4)
- PSY 250 - Research Design in Psychology (4)
- PSY 251 - Statistics in Psychology (4)

  Each course must be completed with a minimum grade of 2.0.

2. One course from the following six courses (4 credits)

- PSY 215 - Introduction to Biological and Cognitive Psychology (4)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- PSY 235 - Introduction to Social Psychology (4)
- PSY 236 - Introduction to Individual Differences and Personality Psychology (4)
- PSY 240 - Introduction to Positive Psychology (4)
- PSY 241 - Introduction to Clinical Psychology (4)

3. One course from four of the five following groups (16 credits)

Evolutionary and Comparative

- PSY 301 - The Psychology of Human Sexuality (4)
- PSY 302 - Evolution, Science, and Superstition (4)
- PSY 303 - Evolutionary Psychology (4)
- PSY 304 - Animal Behavior (4)

Cognition, Perception, and Biological Psychology

- PSY 310 - Creativity and Innovation (4)
- PSY 311 - Sensation and Perception (4)
- PSY 312 - Psycholinguistics (4)
- PSY 316 - Cognitive Psychology (4)
- PSY 318 - Biological Psychology (4)
- PSY 415 - Seminar in Cognition, Perception, and Biological Psychology (4) *
- PSY 416 - Seminar: Psychopharmacology (4) *

Developmental

- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children (4) *
- PSY 423 - Seminar: Resilient Aging (4) *
- PSY 424 - Seminar: Moral Development (4) *
- PSY 425 - Seminar in Developmental Psychology (4) *

Social Personality

- PSY 330 - Social Cognition (4)
- PSY 333 - Motivation (4)
- PSY 334 - Industrial and Organizational Psychology (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 435 - Seminar in Social Psychology (4) *
- PSY 436 - Seminar in Individual Differences and Personality Psychology (4) *

Behavioral Health

- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4)
- PSY 346 - Psychology of Gender (4)
- PSY 399 - Field Experience in Psychology (4)

Note

*Indicates capstone course in each of the above groups.

4. Two electives at 300-level or 400-level (8 credits)

Note: Electives must be in addition to courses used to satisfy four of the five groups above.

5. One capstone course at 400-level (4 credits)

Note: May not count as 400-level elective above.

Departmental Honors

Departmental honors in psychology are based on the following criteria:

- Overall grade point average of 3.2 or above and 3.5 or above in psychology courses
- Completion of PSY 250 and PSY 251 with a grade of 3.2 or above in each class
- Completion of PSY 461 (Advanced Statistics in Psychology) with a grade of 3.2 or above
- Completion of PSY 494 and 495, Honors Thesis

The Application for Departmental Honors in Psychology form must be filed to be considered for honors.

Further information is available on the departmental website or from the department chair, chief adviser, or director of Undergraduate Studies.

Requirements for a modified major in psychology with a concentration in linguistics, B.A. program

Students with this modified major in psychology must complete a minimum of 24 credits in psychology and 20 credits in linguistics including:

1. Required courses

- PSY 100 – Introduction to Psychology (4)
- PSY 250 - Research Design in Psychology (4)
- PSY 251 - Statistics in Psychology (4)

2. At least two 300-level PSY courses

3. Sixteen credits in LIN courses, including

- LIN 201 - Introduction to Linguistics (4)
- LIN 303 - Introduction to Phonology (4)
- LIN 304 - Introduction to Syntax (4)
- LIN 403 - Phonological Theory (4) or LIN 404 - Syntactic Theory (4)

4. Required course

- ALS 335 - Psycholinguistics (4)

Requirements for the liberal arts minor in psychology

To earn a minor in psychology, students must complete a minimum of 24 credits in psychology with a minimum GPA of 2.00 over all psychology courses and must satisfy the following requirements:

1. Required courses (must be completed with a minimum grade of 2.0)

- PSY 100 - Introduction to Psychology (4)
- PSY 250 - Research Design in Psychology (4)

2. Two of the following courses

- PSY 215 - Introduction to Biological and Cognitive Psychology (4)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- PSY 235 - Introduction to Social Psychology (4)
- PSY 236 - Introduction to Individual Differences and Personality Psychology (4)
- PSY 240 - Introduction to Positive Psychology (4)

- PSY 241 - Introduction to Clinical Psychology (4)

3. One course from two of the following five groups

Evolutionary and Comparative

- PSY 301 - The Psychology of Human Sexuality (4)
- PSY 302 - Evolution, Science, and Superstition (4)
- PSY 303 - Evolutionary Psychology (4)
- PSY 304 - Animal Behavior (4)

Cognition, Perception, and Biological Psychology

- PSY 310 - Creativity and Innovation (4)
- PSY 311 - Sensation and Perception (4)
- PSY 312 - Psycholinguistics (4)
- PSY 316 - Cognitive Psychology (4)
- PSY 318 - Biological Psychology (4)
- PSY 415 - Seminar in Cognition, Perception, and Biological Psychology (4)
- PSY 416 - Seminar: Psychopharmacology (4)

Developmental

- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children (4)
- PSY 423 - Seminar: Resilient Aging (4)
- PSY 424 - Seminar: Moral Development (4)
- PSY 425 - Seminar in Developmental Psychology (4)

Social Personality

- PSY 330 - Social Cognition (4)
- PSY 333 - Motivation (4)
- PSY 334 - Industrial and Organizational Psychology (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 435 - Seminar in Social Psychology (4)

Behavioral Health

- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4)
- PSY 346 - Psychology of Gender (4)
- PSY 399 - Field Experience in Psychology (4)

Note

Students using this catalog to meet psychology minor requirements may also use any course subsequently approved as satisfying requirements in each of the five groups under requirement #3 and published in a later catalog.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

PSY 100 - Introduction to Psychology (4)
An introduction both to basic principles and recent formulations in psychology. Topics include the central psychological processes of attending, perceiving, learning, thinking, remembering and study of social behavior, and the development and organization of personality. Required of psychology majors. Satisfies the university general education requirement in the social science knowledge exploration area.

PSY 200 - Topics in Psychology (1 to 4)
Offered occasionally on special topics of current interest that are not listed among regular offerings.
Prerequisite(s): see individual listings in the Schedule of Classes.

PSY 215 – Introduction to Biological and Cognitive Psychology (4)
Survey of the processes of learning, memory and thinking, including physiological factors underlying these processes.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 225 - Introduction to Life-Span Developmental Psychology (4)
Survey of the principal cognitive, social and behavioral processes that operate across the life-span. Satisfies the university general education requirement for knowledge applications integration. Prerequisite for knowledge applications integration: completion of the university general education requirement in the social science knowledge exploration area.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 235 - Introduction to Social Psychology (4)
Overview of traditional and current trends in social psychology. Attention is given to developing theoretical approaches to attitudes, interpersonal processes and social perception.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 236 – Introduction to Individual Differences and Personality Psychology (4)
Survey of basic research in individual differences and personality, including a discussion of major personality theories, personality variables (i.e., aggression, altruism) and the measurement of personality variables.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 240 - Intro to Positive Psychology (4)
Scientific study of the strengths and virtues that allow individuals and communities to thrive. Review of empirical and theoretical work as it relates to positive emotions such as contentment, happiness, hope; individual traits such as optimism, self-efficacy, compassion, resilience, integrity, hope, wisdom; and institutional strengths that foster justice, parenting, leadership, purpose and tolerance.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 241 - Introduction to Clinical Psychology (4)
Introduction to the broad field of clinical psychology. The various roles of a clinical psychologist and sub-fields of study in clinical psychology will be covered. Detailed attention will be given to the history and current directions of the field and the activities of a clinical psychologist, including assessment, prevention, intervention, research and consultation.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 250 - Research Design in Psychology (4)
General introduction to design, function and interpretation of research in the social sciences. Provides necessary preparation to evaluate the empirically based content of psychology. Required of psychology majors.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 251 - Statistics in Psychology (4)
Introduces principal statistical procedures needed to analyze and interpret data in behavioral science research. Includes descriptive and inferential statistics.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher and proficiency in intermediate algebra as demonstrated through a grade of 2.0 or higher in MTH 062 or placement in a higher mathematics course.

PSY 301 - The Psychology of Human Sexuality (4)
Current knowledge surrounding the psychology of human sexual behavior, orientations, and experience. General topics include anatomy, reproduction, sexual behavior, theories of sexual orientation, paraphilia, and sexual health. Students will achieve a current understanding of human sexuality from a psychological perspective.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 302 – Evolution, Science and Superstition (4)
Overview of the methods and products of science as contrasted with superstition and supernaturalism, with a focus on the evolved psychology that motivates scientific and supernatural thinking. Focus on differentiating critical thinking and scientific evidence-based beliefs and practices from beliefs and practices that are not evidence-based and do not depend on critical thinking, such as tarot card readings, palm readings, astrology and supernaturalism. Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 303 - Evolutionary Psychology (4)
Reviews empirical and theoretical work in the broad field of evolutionary psychology which addresses human and non-human nature, individual differences and group differences, including sex differences and cultural differences from an evolutionary perspective.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 304 - Animal Behavior (4)
Comparative psychological, ethological and sociobiological viewpoints behavior of animals. Emphasis on vertebrate species including humans. Discussion of reproductive, aggressive and social behaviors, learning, communication, etc. Stresses an evolutionary perspective. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 310 - Creativity and Innovation (4)
Interdisciplinary approach to understanding cultural, societal, individual, cognitive, and biological determinants of creativity and their application to innovation.
Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

PSY 311 - Sensation and Perception (4)
Psychophysical, physiological and cognitive approaches to the basic sensory systems and perceptual processes.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 312 – Psycholinguistics (4)
The psychology of language, the accommodation between the cognitive and physical structure of humans and the structure of language, the nature of the language learning process, and the consequences of language use. Identical with ALS 335. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

PSY 316 - Cognitive Psychology (4)
The information processing approach to problems in pattern recognition, selective attention, mental operations, short- and long-term memory, the psychology of reading, problem solving and probabilistic reasoning. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 318 - Biological Psychology (4)
Biological bases of behavior of humans and related mammalian species: basic neuroanatomy and neurophysiology, motivation, emotion, learning and memory, sleep and dreams, sensory-motor mechanisms, brain stimulation, psychopharmacology, hormones and behavior. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 321 - Child Development (4)
Theory and principles of child development from birth to puberty. Selected topics include: maturational processes, learning and motivation, intelligence, self-concept and child-rearing practices. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 322 - Adolescence and Youth (4)
Focuses on the scientific study of the normative biological, cognitive, emotional, personality and social changes that occur during adolescence. Selected topics include pubertal maturation, information processing, identity development, peer relations and family dynamics. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 323 - Adulthood and Aging (4)
Psychological change, from young adulthood to death. Topics include potentials for psychological growth and sources of crisis, changes in intellectual processes, attitudes toward aging, retirement and the needs of the aged. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 330 - Social Cognition (4)
The theory and research explicating thinking processes underlying social phenomena such as impression formation, persuasion, conformity, compliance, stereotyping and causal perception. Areas of focus include attitude formation and change, attribution theory, the role of affect in cognition, schema theory and theories of nonverbal behavior. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 333 – Motivation (4)
Principal theories of motivation. Examination of needs, cognition, and social aspects. Includes a critical review of research and application of these theories to behavior. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 334 - Industrial and Organizational Psychology (4)
Scientific study of the workplace including the application of psychological research methods to such critical business issues as talent management, training and development, selection processes, performance assessment, job satisfaction, employee motivation and commitment, organization development, and work-life balance. The scientist-practitioner model will be emphasized.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 337 - Group Dynamics (4)
Group structure, function and process. Focus on how individuals affect the behavior of people in groups; how the group, in turn, affects the behavior of the individual. Topics include leadership, cohesion, group therapy, crowds and mobs.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 339 – Emotion (4)
Understanding of human emotion from both an historical and theoretical viewpoint. Contemporary theoretical positions will be compared in terms of the roles cognition, behavior and psychological changes play in the emotional experience. Satisfies university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 341 - Adult Psychopathology (4)
Introduction to psychopathology across the lifespan with a focus on the etiology from psychological, biological and sociocultural perspectives; assessment; diagnosis; and empirically-based treatment options. Includes scientific discussion of clinical types, methods of investigation and principals of psychotherapy.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 343 - Child Psychopathology (4)
The psychopathology of children and adolescents. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 344 - Behavior Analysis (4)
Theory and research on the analysis of behavior as it has developed from Pavlov to Skinner and Bandura. Includes a consideration of the application of principles of behavior analysis to individual and social behavior. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 345 - Health Psychology (4)
Application of psychological theory and research to health promotion as well as illness prevention and treatment. The interaction between biological, social and psychological factors in health and medical problems is emphasized. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher.

PSY 346 - Psychology of Gender (4)
Exploration of the psychological perspectives on sex and gender, gender identity, roles, conflicts and stereotypes. Emphasis on psychological development and socialization, race, culture, social class and sexuality. May highlight the unique experiences of women. Identical with WGS 374.
Prerequisite: PSY 100 with a grade of 2.0 or higher.

PSY 350 - Tests and Measurements (4)
Theories of measurement and evaluation. Examination of empirical construction and interpretation of various tests, including intelligence, achievement, interests and special aptitudes. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 251 with a grade of 2.0 or higher.

PSY 399 - Field Experience in Psychology (4)
The application of psychological concepts and methods in a non-academic setting. Includes job placement with a classroom component, readings and discussion of relevant literature. May not be repeated for credit. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): junior/senior standing. Minimum of 16 credits in the major including PSY 250 with a grade of 2.0 or higher, two courses between PSY 310 and PSY 349 and permission of instructor.

PSY 401 - History of Psychology (4)
Examines psychology's philosophical and physiological roots. Attention is given to the ways in which historical contexts and movements are linked to major developments in psychological thought and theory, including the psychology of consciousness, the unconscious, behaviorism, cognitive science, social psychology, and applied fields of psychology. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): PSY 250 with a grade of 2.0 or higher and two additional PSY courses.

PSY 415 – Seminar in Cognition, Perception, and Biological Psychology (4)
Advanced seminar in a special topic related to cognition, perception, conditioning or physiological processes. May be repeated once for a total of 8 credits. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor.

PSY 416 - Seminar: Psychopharmacology (4)
Examines the effects of drugs on brain and behavior. Includes introduction to brain anatomy and neurotransmission. Emphasis on explanation and theories for the effects of drugs of abuse and drug treatments for psychological disorders on the brain and behavior. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 318 with a grade of 2.0 or higher or permission of instructor.

PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children (4)
Advanced seminar in developmental psychology with a specific focus on cognitive development through the lifespan. Satisfies the university general education requirement for the capstone experience. Prerequisite(s): PSY 225, PSY 250, and PSY 321, each with a grade of 2.0 or higher or permission of instructor.

PSY 423 - Seminar: Resilient Aging (4)
Advanced seminar examining psychological resilience in late life. Empirical and theoretical perspectives in developmental psychology emphasize resilience and healthy adaptation in late life, particularly as these pertain to personality factors, stress management, coping, social resources, neurological plasticity, health maintenance, and thriving. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 250 and 323, each with a grade of 2.0 or higher, or permission of instructor.

PSY 424 - Seminar: Moral Development
Examines theoretical perspectives and empirical work on the cognitive-contextual, socio-emotional, cultural, and biosocial factors in the development of moral cognition, behavior, and emotion among children and adolescents. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 250 with a grade of 2.0 and either PSY 321 or PSY 322 with a grade of 2.0 or higher, or permission of instructor.

PSY 425 - Seminar in Developmental Psychology (4)
Advanced seminar in a special topic related to developmental psychology, such as theories of development. May be repeated once for a total of 8 credits. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor.

PSY 435 - Seminar in Social Psychology (4)
Advanced seminar in a special topic related to social psychology, such as attitudes, attributions or theories of social influence. May be repeated once for a total of 8 credits. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor.

PSY 436 – Seminar in Individual Differences and Personality Psychology (4)
Advanced seminar in a special topic related to individual differences and personality psychology, such as theories of personality, aggression or religion. May be repeated once for a total of 8 credits. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 245 and PSY 250, each with a grade of 2.0 or higher, and permission of instructor.

PSY 450 – Advanced Research Design in Psychology (4)
Issues in design and methodology of psychological research with application to the area of basic psychological processes. Independent research project required. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 251 with a grade of 2.0 or higher and permission of instructor.

PSY 451 - Advanced Statistics in Psychology (4)T
Advanced statistical procedures employed in social science research. Topics include testing the statistical assumptions and a variety of inferential statistics such as partial correlations, multiple regression analysis, factor analysis, mixed ANOVA, and non-parametric tests. Emphasizes the integration of methodological, computational, and statistical issues using statistical software.
Prerequisite(s): PSY 251 with a grade of 2.0 or higher and permission of instructor.

PSY 470 - College Teaching Apprenticeship (4)
Supervised participation in teaching undergraduate psychology courses. Discussion of teaching objectives and methods. May be repeated for a total of 8 credits. Only 4 credits may be offered to fulfill major requirements.
Prerequisite(s): permission of instructor.

PSY 483 - Readings and Research Projects (4)
Individual readings or laboratory research on a topic agreed upon by a student and a member of the psychology faculty. May be repeated for additional credit. Not more than 8 credits of readings and research project may be counted toward fulfillment of the major in psychology. Each satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor and completion of the university writing foundation requirement.

PSY 484 - Readings and Research Projects (4)
Individual readings or laboratory research on a topic agreed upon by a student and a member of the psychology faculty. May be repeated for additional credit. Not more than 8 credits of readings and research project may be counted toward fulfillment of the major in psychology. Each satisfies the university general education requirement for the capstone experience.
Prerequisite(s): instructor permission and completion of the university writing foundation requirement.

PSY 485 - Readings and Research Projects (4)
Individual readings or laboratory research on a topic agreed upon by a student and a member of the psychology faculty. May be repeated for additional credit. Not more than 8 credits of readings and research project may be counted toward fulfillment of the major in psychology. Each satisfies the university general education requirement for the capstone experience.
Prerequisite(s): permission of instructor and completion of the university writing foundation requirement.

PSY 487 - Research Apprenticeship (2 or 4)
Student will be mentored by faculty in various steps of the research process. May be repeated for additional credit. Not more than 8 credits earned in the research apprenticeship may be counted toward fulfillment of the major in psychology.
Prerequisite(s): permission of instructor.

PSY 488 - Research Apprenticeship (2 or 4)
Student will be mentored by faculty in various steps of the research process. May be repeated for additional credit. Not more than 8 credits earned in the research apprenticeship may be counted toward fulfillment of the major in psychology.
Prerequisite(s): permission of instructor.

PSY 489 - Research Apprenticeship (2 or 4)
Student will be mentored by faculty in various steps of the research process. May be repeated for additional credit. Not more than 8 credits earned in the research apprenticeship may be counted toward fulfillment of the major in psychology.
Prerequisite(s): permission of instructor.

PSY 494 - Honors Independent Studies I (4)
First course in sequence for independent honors research project. With guidance from an identified faculty mentor, student will prepare research prospectus, present proposal to thesis committee, and complete IRB or IACUC process. Student is expected to continue independent study in PSY 495 during subsequent semester. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): PSY 250 and PSY 251, each with a grade of 3.2 or higher, and permission of instructor.

PSY 495 - Honors Independent Studies II (4)
Second course in sequence for independent honors research project. Student will collect and analyze data, write manuscript, and defend thesis to committee. Successful completion requires approval of the thesis committee.
Prerequisite(s): PSY 494 and permission of the instructor.

Department of Sociology, Anthropology, Social Work and Criminal Justice

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Visiting Professors: *Viviana Weekes-Shackelford*

Administrative professionals: *Stephanie Brandimarte (Social Work), Kimberly Byrd (Criminal Justice), Maria DeVoogd-Beam (program director, Social Work), Heather El-Khoury (Social Work)*

Chief advisers: *Henri Gooren (Anthropology), George Sanders (Sociology), Stephanie Brandimarte (Social Work), Kimberly Byrd (Criminal Justice)*

The Department of Sociology, Anthropology, Social Work and Criminal Justice offers majors in sociology and anthropology as well as a joint major in sociology/anthropology (B.A.); a major in criminal justice leading to a Bachelor of Arts (B.A.) degree, and a major in social work leading to the Bachelor of Social Work (B.S.W.) degree.

Sociology is the scientific study of society and systematically examines the cultural and social factors that shape individual and group behavior. Students learn about the fundamental processes of human interaction, the forces of social inequality and social change, and critically examine society's social institutions and social problems. The major prepares students for careers where knowledge of human relationships and/or research skills are desirable, and for graduate work in sociology and related social service fields.

Anthropology is the study of humankind in all its aspects, through archaeological, biological, cultural, and linguistic research, and fosters the use of this knowledge in addressing human problems. The major prepares students for graduate work in anthropology and/or archaeology and for careers that utilize anthropological knowledge and training. In sociology and anthropology students are required to study research techniques and acquire skills in theoretical analysis. Both majors are designed to allow flexibility for students to pursue their own intellectual interests.

Social work is a profession that strives to prevent crisis, promote social justice, and enhance the social functioning of individuals, groups, and communities so that they may better cope with the many challenges they encounter. The Bachelor of Social Work degree program trains students in the generalist social work perspective, along with the values and ethical principles consistent with the profession's historical commitment to social justice and positive change. Students trained in social work are capable of working with individuals, families, and communities of different cultural and ethnic backgrounds.

The criminal justice major is an interdisciplinary program grounded in the theoretical, methodological, and applied policy traditions of criminology and criminal justice, as well as those related disciplines that have contributed to its core knowledge (i.e., sociology, political science, public administration, law, philosophy, psychology). The degree choices that students can make are criminal justice, criminal justice with a specialization in homeland security and criminal justice with a specialization in information security and assurance.

Students also may select a combined major in sociology and anthropology, and a modified major in sociology or anthropology with a concentration in linguistics. Other concentrations include archaeology, gerontology, and addiction studies. The department offers minors in sociology or anthropology and a sociology minor for students in the secondary teaching education program (STEP). The department also offers minors in Criminal Justice and Child Welfare (for social work majors)

Requirements for the liberal arts major in sociology, B.A. program

To earn a Bachelor of Arts with a major in sociology, students must complete a minimum of 40 credits, 20 of which must be taken at the 300-400 level including:

1. Core

- SOC 100 - Introduction to Sociology (4)
- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)
- SOC 400 - Sociological Theory (4)

2. One course from each of the following categories

Interaction processes

- SOC 206 - Self and Society (4)
- SOC 207 - Human Sexuality (4)
- SOC 337 - Interpersonal Relationships (4)
- SOC 402 - Small Groups (4)

Social issues

- SOC 205 - Current Social Problems (4)
- SOC 222 - Sociology of Mental Illness (4)
- SOC 300 - Alcohol, Drugs and Society (4)
- SOC 308 - Population and Society (4)
- SOC 315 - Social Welfare Policies (4)
- SOC 323 - Delinquency and Juvenile Justice (4)
- SOC 465 - Sociological Perspectives on Aging (4)

Social institutions

- SOC 305 - Sociology of Religion (4)
- SOC 320 - Law and Society (4)
- SOC 326 - Family and Community Processes (4)
- SOC 327 - Police and Society (4)
- SOC 328 - Sociology of Health and Medicine (4)
- SOC 335 - Sociology of Family (4)
- SOC 381 - Theories of Modern Organizations (4)

Social inequality and change

- SOC 301 - Social Stratification (4)
- SOC 331 - Racial and Ethnic Relations (4)
- SOC 336 - Sociology of Gender (4)
- SOC 344 - Social Movements (4)
- SOC 345 - Urban and Community Sociology (4)
- SOC 352 - Gender and Work (4)

4. Eight elective credits at the 300-400 level, four of which may include anthropology.

Notes

No more than 8 credits counted toward the sociology major may be taken in SOC 190, SOC 392, SOC 399 or SOC 480.

Students using this catalog to meet sociology major requirements may also use any course subsequently approved as satisfying requirements in the interaction processes, social issues, social institutions, and social inequality and change categories and published in a later catalog.

Requirements for modified majors in sociology and/or anthropology with a linguistics concentration, B.A. program

To earn a modified major in sociology with a concentration in linguistics, students must complete a minimum of 20 credits in sociology, including SOC 100, SOC 202, SOC 203, SOC 400, and a minimum of 20 credits in linguistics including LIN 201, LIN 303, LIN 304, and either LIN 403 or LIN 404, and LIN 376 or SOC 376.

To earn a modified major in anthropology with a concentration in linguistics, students must complete AN 101 and AN 102, plus a minimum of 12 additional credits in anthropology and 20 credits in linguistics, including: LIN 201, LIN 303, LIN 304, and either LIN 403 or LIN 404, and either LIN 374 or AN 374 or LIN 375 or AN 375.

Requirements for the liberal arts major in anthropology, B.A. program

Students have a choice of three 24 credit major tracks: cultural anthropology (strongly recommended for students planning to go to graduate school in this field); archaeology (strongly recommended for students planning graduate work in archaeology) and general anthropology (recommended for students whose interest in anthropology is broadly educational).

To earn a Bachelor of Arts with a major in anthropology, students must complete a minimum of 40 credits, including the following:

1. Core

- AN 101 - Human and Cultural Evolution (4)
- AN 102 - Culture and Human Nature (4)
- AN 302 - Anthropological Research Methods (4)
- AN 470 - Anthropological Theory (4)

2. Complete one of the following 24-credit tracks

A. Cultural anthropology - 24 credits

1. One class from each of the following categories

Bio-evolutionary anthropology

- AN 333 - Medical Anthropology (4)
- AN 382 - Advanced Physical Anthropology (4)
- AN 391 - Primate Behavior (4)
- AN 410 - Human Adaptation (4)

Social anthropology

- AN 200 - Global Human Systems (4)
- AN 210 - Applied Anthropology (4)
- AN 271 - Magic, Witchcraft and Religion (4)
- AN 300 - Culture, Society and Technology (4)
- AN 305 - The Life Course in Anthropological Perspective (4)
- AN 307 - Culture and Society Through Film (4)
- AN 310 - Psychological Anthropology (4)
- AN 320 - Law and Society (4)
- AN 322 - The Food Quest (4)
- AN 331 - Racial and Ethnic Relations (4)
- AN 337 - Women's Lives in Cross-Cultural Perspective (4)
- AN 374 - Cross Cultural Communication (4)
- AN 375 - Language and Culture (4)
- AN 401 - Social Anthropology (4)
- AN 430 - Systems of Wealth and Power in Anthropological Perspective (4)

Archaeology

- AN 222 - Archaeological Methods and Theory (4)
- AN 282 - The Archaeology of Civilizations (4)
- AN 370 - Archaeology of Mesoamerica (4)
- AN 380 - Archaeology of North America (4)
- AN 385 - Historical Archaeology (4)
- AN 386 - Archaeology of Israel (4)
- AN 387 - Archaeology, Ideology and Sacred Sites in the Ancient Near East (4)

Ethnology of world culture area

- AN 361 - Peoples and Cultures of India (4)
- AN 362 - Peoples and Cultures of China (4)
- AN 363 - The Asian American Experience (4)
- AN 371 - Peoples and Cultures of Mexico and Central America (4)
- AN 381 - Peoples and First Nations of North America (4)

2. 8 credits in electives from any AN courses at the 200 level or above

B. Archaeology - 24 credits

1. Required courses

- AN 222 - Introduction to Anthropological Archaeology (4)
- AN 383 - Archaeological Field School (4 or 8)

2. 12 elective credits selected from

- AN 282 - The Archaeology of Civilizations (4)
- AN 370 - Archaeology of Mesoamerica (4)
- AN 380 - Archaeology of North America (4)

- AN 384 - Museum Studies in Archaeology (4)
- AN 385 - Historical Archaeology (4)
- AN 386 - Archaeology of Israel (4)
- AN 387 - Archaeology, Ideology and Sacred Sites in the Ancient Near East (4)

C. General anthropology - 24 credits

- Elective credits chosen from any anthropology courses.

Notes

LIN 201 - Introduction to Linguistics is strongly recommended for all anthropology majors, as is the study of at least two years of a foreign language. Students planning graduate school should also consider taking SOC 202 (Research Methods). No more than 8 credits counted toward the major may be taken in AN 190/SOC 190, AN 392/SOC 392, AN 399/SOC 399 or AN 480 /SOC 480.

Students using this catalog to meet cultural anthropology major track requirements may also use any course subsequently approved as satisfying requirements in the bio-evolutionary anthropology, social anthropology, archaeology, and ethnology or world culture categories and published in a later catalog.

Requirements for modified majors in sociology and/or anthropology with a linguistics concentration, B.A. program

To earn a modified major in sociology with a concentration in linguistics, students must complete a minimum of 20 credits in sociology, including SOC 100, SOC 202, SOC 203, SOC 400, and a minimum of 20 credits in linguistics including LIN 201, LIN 303, LIN 304, and either LIN 403 or LIN 404, and LIN 376 or SOC 376.

To earn a modified major in anthropology with a concentration in linguistics, students must complete AN 101 and AN 102, plus a minimum of 12 additional credits in anthropology and 20 credits in linguistics, including: LIN 201, LIN 303, LIN 304, and either LIN 403 or LIN 404, and either LIN 374 or AN 374 or LIN 375 or AN 375.

Sociology/Anthropology, B.A.

To earn a Bachelor of Arts with a combined major in sociology/anthropology, students must complete a minimum of 20 credits in sociology and 20 credits in anthropology including the following:

1. Sociology courses

- SOC 100 - Introduction to Sociology (4)
- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)

2. Anthropology courses

- AN 101 - Human and Cultural Evolution (4)
- AN 102 - Culture and Human Nature (4)

3. One course chosen from

- SOC 400 - Sociological Theory (4)
- AN 470 - Anthropological Theory (4)

Note:

No more than 8 credits counted toward the major may be taken in SOC/AN 190, SOC/AN 392, SOC/AN 399, or SOC/AN 480.

Requirements for the major in social work, Bachelor of Social Work (BSW) program

Admission to the Bachelor of Social Work degree program is based on the following criteria: a minimum overall GPA of 2.80 and completion of all program prerequisite courses: SOC 100, PSY 100, PS 100, BIO 104/ BIO 111, with a grade of 2.0 or higher; completion of SW 210 with a grade of 3.0 or higher; experience in the human services field (employment or volunteer work including work completed for SW 210); two letters of reference (one from a supervisor in a human services agency) and a personal written statement from students.

To earn a major in social work, students must complete a pre-core of 28 credits and a minimum of 48 credits in the core social work curriculum. To remain in good academic standing while in the program, students must maintain a minimum cumulative GPA of 3.00 in the following major courses: SOC 202, SOC 203, SW 310 , SW 311, SW/ SOC 315, SW 316, SW 318, SW 405, SW 406, SW 431, SW 433, as well as an overall GPA of 2.80.

Pre-core - 28 credits

1. Required courses

- SOC 100 - Introduction to Sociology (4)
- SW 210 - Introduction to Social Work (4)
- BIO 104 - Human Biology (4) or BIO 111 - Biology I (4)
- PSY 100 - Introduction to Psychology (4)
- PS 100 - Introduction to American Politics (4)

2. Corequisites (may be taken concurrently with major coursework)

- AN 102 - Culture and Human Nature (4)

Sociology/criminal justice/social work elective selected from

- CRJ 100 - Introduction to Criminal Justice (4)
- SOC 207 - Human Sexuality (4)
- SOC 300 - Alcohol, Drugs and Society (4)
- SOC 301 - Social Stratification (4)
- SOC 305 - Sociology of Religion (4)
- SOC 323 - Delinquency and Juvenile Justice (4)
- SOC 326 - Family and Community Processes (4)
- SOC 327 - Police and Society (4)
- SOC 331 - Racial and Ethnic Relations (4)
- SOC 335 - Sociology of Family (4)
- SOC 337 - Interpersonal Relationships (4)
- SOC 465 - Sociological Perspectives on Aging (4)
- SW 358 - Death and Dying (4)
- SW 360 - Child Welfare (4)
- SW 364 - Substance Abuse Theory and Practice I (4)

Core - 48 credits

1. Required courses

- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)

- SOC 315 - Social Welfare Policies (4) or SW 315 - Social Welfare Policies

The following courses require formal acceptance into the social work program:

- SW 310 - Human Behavior and Social Environment l (4)
- SW 311 - Human Behavior and Social Environment ll (4)
- SW 316 - Fundamentals of Social Work Practice (4)
- SW 318 - Foundations for Multicultural Social Work (4)
- SW 405 - Social Work Practice I (4)
- SW 406 - Social Work Practice II (4)
- SW 430 - Social Work Internship I (2)
- SW 431 - Social Work Seminar I (4)
- SW 432 - Social Work Internship II (2)
- SW 433 - Social Work Seminar II (4)

2. One diversity course selected from

- SOC 331 - Racial and Ethnic Relations (4)
- WGS 200 - Introduction to Women and Gender Studies (4)
- WGS 303 - Introduction to LGBTQ Studies (4)

Notes
BIO 104, BIO 111, PSY 100 andPS 100 may be used to fulfill general education requirements.
Either SOC 331 or WGS 200 may be used to fulfill the university's U.S. diversity requirement and the social work diversity requirement.

Students using this catalog to meet social work requirements may also use any course subsequently approved as satisfying the sociology or criminal justice elective or the diversity elective and published in a later catalog.

Requirements for a liberal arts minor in sociology

To earn a minor in sociology, students must complete a minimum of 20 credits in sociology, distributed as follows:

1. Core course

- SOC 100 - Introduction to Sociology (4)

2. A minimum of 16 additional credits in sociology, 12 of which must be at the 300-400 level

Requirements for a liberal arts minor in anthropology

To earn a minor in anthropology, students must complete 20 credits distributed as follows:

1. Required courses

- AN 101 - Human and Cultural Evolution (4)
- AN 102 - Culture and Human Nature (4)

2. A minimum of 12 credits in anthropology courses at the 300-400 level

Requirements for the criminal justice major

To earn a Bachelor of Arts with a major in criminal justice students must complete a minimum of 48 credits as listed below. Students must earn a minimum grade of 2.5 in the following major courses: CRJ 100, CRJ 200, all CRJ core courses, all CRJ elective courses, CRJ 430 and CRJ 490.

Field experience is an integral part of the criminal justice curriculum. Students must have an overall GPA of 2.0 and a GPA of 2.5 in the major, completed all required and core courses, and met with the director of field services and student support to secure an internship placement prior to enrolling in CRJ 430.

1. Required courses

- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 200 - Criminological Theory (4)
- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)

2. Two core courses from the following list

- CRJ 323 - Delinquency and Juvenile Justice (4)
- CRJ 324 - Corrections and Rehabilitative Institutions (4)
- CRJ 327 - Police and Society (4)
- CRJ 329 - Criminal Law and the Courts (4)

3. Two criminal justice electives selected from

- CRJ 300 - Alcohol, Drugs and Society (4)
- CRJ 320 - Criminology and Public Policy in Criminal Justice (4)
- CRJ 330 - Women, Crime and Justice (4)
- CRJ 332 - Race/Ethnicity, Crime and Justice (4)
- CRJ 340 - White-Collar Crime (4)
- CRJ 341 - Cybercrime (4)
- CRJ 342 - The Surveillance Society (4)
- CRJ 346 - Profiling and Threat Assessment (4)
- CRJ 348 - Terrorism and Homeland Security (4)
- CRJ 360 - Criminal Careers and Career Criminals (4)
- CRJ 365 - Critical Incident Analysis (4)
- CRJ 395 - Special Topics in Criminal Justice (4)

4. Two interdisciplinary electives selected from

- AN 320 - Law and Society (4) or SOC 320 - Law and Society (4)
- AN 331 - Racial and Ethnic Relations (4) or SOC 331 - Racial and Ethnic Relations (4)
- HST 301 - History of American Cities (4)
- HST 304 - History of the American Industrial Economy and Society (4)
- HST 318 - The Civil Rights Movement in America (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- HST 361 - History of American Families (4) or WGS 361 - History of American Families (4)
- HST 392 - Working Detroit (4)
- MIS 480 - Information Systems Privacy (3) (minimum grade of 2.0 required)
- PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
- PHL 319 - Philosophy of Law (4)
- PHL 320 - Global Justice (4)
- PHL 321 - Political Philosophy (4)

- PS 314 - International Politics: Theory and Practice (4)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 342 - The Judicial Process (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- SOC 207 - Human Sexuality (4) or WGS 207 - Human Sexuality (4)
- SOC 222 - Sociology of Mental Illness (4)
- SOC 301 - Social Stratification (4)
- SOC 315 - Social Welfare Policies (4) or SW 315 - Social Welfare Policies (4)
- SOC 326 - Family and Community Processes (4)
- SOC 336 - Sociology of Gender (4) or WGS 336 - Sociology of Gender (4)
- SOC 345 - Urban and Community Sociology (4)
- SOC 346 - Communities (4)

5. Internship

- CRJ 430 - Internship in Criminal Justice (4) (consultation with director of field services and student support required prior to enrollment)

6. Capstone

- CRJ 490 - Capstone: Criminal Justice Policy Analysis (4)

Requirements for the criminal justice major - homeland security specialization

To earn a Bachelor of Arts with a major in criminal justice and a specialization in homeland security, students must complete a minimum of 60 credits as listed below. Students must earn a minimum grade of 2.5 in the following major courses: CRJ 100, CRJ 200, all CRJ core courses, all CRJ elective courses, CRJ 430 and CRJ 490 .

Field experience is an integral part of the criminal justice curriculum. Students are required to meet with the director of field services and student support to secure an internship placement prior to enrolling in CRJ 430.

1. Required courses

- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 200 - Criminological Theory (4)
- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)

2. Core courses

- CRJ 327 - Police and Society (4)
- CRJ 329 - Criminal Law and the Courts (4)

3. Criminal justice electives (select four courses)

- CRJ 300 - Alcohol, Drugs and Society (4)
- CRJ 320 - Criminology and Public Policy in Criminal Justice (4)
- CRJ 332 - Race/Ethnicity, Crime and Justice (4)
- CRJ 340 - White-Collar Crime (4)

- CRJ 341 - Cybercrime (4)
- CRJ 342 - The Surveillance Society (4)
- CRJ 346 - Profiling and Threat Assessment (4)
- CRJ 348 - Terrorism and Homeland Security (4)
- CRJ 360 - Criminal Careers and Career Criminals (4)
- CRJ 365 - Critical Incident Analysis (4)
- CRJ 395 - Special Topics in Criminal Justice (4) (approval from the criminal justice faculty adviser required)

4. Interdisciplinary electives (select three courses)

- MIS 480 - Information Systems Privacy (3)
- PS 314 - International Politics: Theory and Practice (4)
- PS 332 - Politics of the Middle East and North Africa (4)
- PS 334 - Political Systems of Asia (4)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 347 - Law and Politics (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- HST 352 - Nationalism in Modern Europe (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- HST 359 - Modern Iran and Iraq (4)
- HST 382 - Religion, Politics and American Culture (4)
- PHL 311 - Philosophy of International Relations: Law, War and Peace (4)
- SOC 331 - Racial and Ethnic Relations (4) or AN 331 - Racial and Ethnic Relations (4)
- PHL 320 - Global Justice (4)

5. Internship

CRJ 430 - Internship in Criminal Justice (4) (consultation with director of field services and student support required prior to enrollment)

6. Capstone

CRJ 490 - Capstone: Criminal Justice Policy Analysis (4)

Requirements for the criminal justice major - information security and assurance specialization

To earn a Bachelor of Arts with a major in criminal justice and a specialization in information security and assurance, students must complete a minimum of 62 credits, as listed below. Students must earn a minimum grade of 2.5 in the following major courses: CRJ 100, CRJ 200, all CRJ core courses, all CRJ elective courses, CRJ 430 and CRJ 490.

Field experience is an integral part of the criminal justice curriculum. Students are required to meet with the director of field services and student support to secure an internship placement prior to enrolling in CRJ 430.

1. Required courses

- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 200 - Criminological Theory (4)
- SOC 202 - Introduction to Methods of Social Research (4)
- SOC 203 - Social Statistics with Computer Applications (4)

2. Core courses

- CRJ 327 - Police and Society (4)
- CRJ 329 - Criminal Law and the Courts (4)

3. Required MIS courses (minimum grade of 2.0 required in each)

- MIS 301 - Survey of Management Information Systems (3)
- MIS 305 - Information Technology Foundations (3)
- MIS 314 - Business Database Systems (3)
- MIS 315 - Business Systems Analysis and Design (3)
- MIS 405 - Networks (3)
- MIS 406 - Information Security Lab (3)

4. Two criminal justice electives selected from

- CRJ 320 - Criminology and Public Policy in Criminal Justice (4)
- CRJ 340 - White-Collar Crime (4)
- CRJ 341 - Cybercrime (4)
- CRJ 342 - The Surveillance Society (4)
- CRJ 346 - Profiling and Threat Assessment (4)
- CRJ 348 - Terrorism and Homeland Security (4)
- CRJ 365 - Critical Incident Analysis (4)
- CRJ 395 - Special Topics in Criminal Justice (4)

5. One interdisciplinary elective selected from

- MIS 480 - Information Systems Privacy (3) (minimum grade of 2.0 required)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 347 - Law and Politics (4)
- PS 360 - International Terrorism: Causes, Consequences, Responses (4)
- PHL 320 - Global Justice (4)

6. Internship

CRJ 430 - Internship in Criminal Justice (4)
(consultation with director of field services and student support required prior to enrollment)

7. Capstone

CRJ 490 - Capstone: Criminal Justice Policy Analysis (4)

Note

Student will achieve a minor in management information systems upon completion of the information security and assurance specialization.

Additional information
Students using this catalog to meet criminal justice major requirements may also use any course subsequently approved as satisfying requirements in a particular electives group of courses and published in a later catalog.

Requirements for a liberal arts minor in criminal justice

To earn a minor in criminal justice, students must complete and earn a 2.5 in each of the criminal justice courses:

1. Required courses

- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 200 - Criminological Theory (4)

2. One core criminal justice course selected from

- CRJ 323 - Delinquency and Juvenile Justice (4)
- CRJ 324 - Corrections and Rehabilitative Institutions (4)
- CRJ 327 - Police and Society (4)
- CRJ 329 - Criminal Law and the Courts (4)

3.Two criminal justice electives (8 credits)

Note
Students using this catalog to meet criminal justice minor requirements may also use any course subsequently approved as satisfying requirements in the core criminal justice group (requirement #2 above) and published in a later catalog.

Requirements for a liberal arts minor in child welfare

The child welfare minor is available for social work students interested in working with children and families in areas of abuse and neglect, foster care and adoption, juvenile delinquency and other related fields.

Completion of this minor does not equate to the endorsement through the Michigan Department of Human Service. Rather that is a separate application process. BSW students seeking a minor in child welfare must schedule an appointment with the program adviser to learn more about the endorsement application and eligibility requirements.

1. Required courses

- SW 310 - Human Behavior and Social Environment l (4)
- SW 360 - Child Welfare (4)
- SW 405 - Social Work Practice I (4)

2. Two elective courses selected from

- SW 364 - Substance Abuse Theory and Practice I (4)
- SW 365 - Substance Abuse Theory and Practice II (4)
- SW 395 - Special Topics in Social Work (2 TO 4)
- SOC 326 - Family and Community Processes (4)
- SOC 335 - Sociology of Family (4)
- CRJ 300 - Alcohol, Drugs and Society (4) or SOC 300 - Alcohol, Drugs and Society (4)
- CRJ 323 - Delinquency and Juvenile Justice (4) or SOC 323 - Delinquency and Juvenile Justice (4)

Requirements for the secondary teaching minor in sociology (STEP)

The secondary teaching minor in sociology requires a minimum of 24 credits including:

1. Core

- SOC 100 - Introduction to Sociology (4)
- SOC 205 - Current Social Problems (4)
- SOC 331 - Racial and Ethnic Relations (4)

2. One course from each of the following areas:

a. Social problems

- SOC 300 - Alcohol, Drugs and Society (4)
- SOC 315 - Social Welfare Policies (4)

b. Social inequality

- SOC 301 - Social Stratification (4)
- SOC 336 - Sociology of Gender (4)
- SOC 352 - Gender and Work (4)

c. Interpersonal relations

- SOC 335 - Sociology of Family (4)
- SOC 337 - Interpersonal Relationships (4)
- SOC 402 - Small Groups (4)

Additional information

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students must consult with the secondary education minor adviser in the department.

Departmental Honors

To be a candidate for departmental honors in sociology, students must have taken at least 20 of their major credits at the 300-400 level, have taken a minimum of 20 credits of their sociology major course work at Oakland University, have earned a minimum GPA of 3.60 in major course work at Oakland and receive recommendations from two departmental faculty members.

To be a candidate for departmental honors in anthropology, students must have taken at least 16 credits in the major at the 300 level or above, have taken a minimum of 20 credits of their anthropology major course work at Oakland University, have earned a minimum GPA of 3.60 in major course work, and receive recommendations from two departmental faculty members.

To be a candidate for departmental honors in social work, students must have taken at least 16 credits in the major at the 300 level or above, have taken a minimum of 20 credits of their social work major course work at Oakland University, have earned a minimum GPA of 3.60 in the major course work, and receive recommendations from two departmental faculty members.

To be a candidate for departmental honors in criminal justice, students must have taken at least 16 credits in the major at the 300 level or above, taken a minimum of 16 credits of criminal justice major coursework at Oakland University, earned a minimum GPA of 3.60 in the major coursework, and received recommendations from two departmental faculty members.

Addiction Studies Concentration

The concentration in Addiction Studies provides students with the required knowledge and skills needed to pursue the Certified Addiction and Drug Counselor license for the State of Michigan and prepares students to work in the areas of substance abuse and addiction.

Concentration in Addiction Studies (28 credits)

Core classes

- PHL 103 - Introduction to Ethics (4)
- PSY 100 - Introduction to Psychology (4)
- SOC 300 - Alcohol, Drugs and Society (4)
- SW 364 - Substance Abuse Theory and Practice I (4)
- SW 365 - Substance Abuse Theory and Practice II (4)

Electives: choose two of the following

- SW 210 - Introduction to Social Work (4)
- SW 405 - Social Work Practice I (4) (for social work majors only)
- SOC 222 - Sociology of Mental Illness (4)
- AN 333 - Medical Anthropology (4)
- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 324 - Corrections and Rehabilitative Institutions (4)
- PHL 318 - Bioethics (4)
- PSY 345 - Health Psychology (4)

Transfer agreement programs in sociology with a specialization in criminal justice

The Department of Sociology/Anthropology offers the B.A. in sociology with a specialization in criminal justice as part of an articulation agreement with Oakland Community College in Auburn Hills and with Macomb Community College. Under the terms of these agreements, students who earn an Associate of Applied Science degree in criminal justice or in law enforcement, or in corrections at Oakland Community College or an Associate of Applied Science degree in law enforcement at Macomb Community College, may transfer to Oakland University and earn a B.A. in sociology with a criminal justice specialization. Students must meet the requirements at their respective institutions; at OU that means completing university general education, U.S. diversity, college exploratory and major requirements. A brochure detailing the guidelines and required courses is available in the department and in the College of Arts and Sciences Advising Office.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

ANTHROPOLOGY

AN 101 - Human and Cultural Evolution (4)
Introduction to physical anthropology and archaeology as applied to human and cultural evolution. Stress placed on human adaptation to environment. Satisfies the university general education requirement in the social science knowledge exploration area.

AN 102 - Culture and Human Nature (4)
Introduction to cultural and social anthropology with emphasis on the continuing human adaptation to the environment and especially the interactions among culture, society and natural environment. Satisfies the university general education requirement in the social science knowledge exploration area or global perspective knowledge exploration area, not both.

AN 190 - Current Issues in Anthropology (1 or 4)
Designed for the general student, this course examines issues of current interest in anthropology. Topic will be announced at the time of offering.

AN 200 - Global Human Systems (4)
Introductory survey of the world-wide distribution, variation, and interconnections of cultural, economic and political systems. Basic concepts in the field of human geography and other social sciences, as relevant, are introduced as are techniques and tools used in carrying out and expressing geographic analysis. Identical with IS 200 AND GEO 200. Satisfies the university general education requirement in the global perspective knowledge exploration area.

AN 210 - Applied Anthropology (4)
Introduces applied anthropology through an examination of cross-cultural training in various fields, such as business, education, economic development, cultural resource management and medical anthropology. Various data collection methods and techniques as well as interpretive strategies are examined.
Prerequisite(s): AN 102.

AN 222 – Archaeological Methods and Theory (4)
Introduces the field of anthropological archaeology through examination of theory, data collection methods and techniques, and interpretive strategies used to understand human histories, life-ways and cultural processes.

AN 271 - Magic, Witchcraft and Religion (4)
Anthropological theories of magic, witchcraft and religion: human interaction with beings, creatures and forces that manifest extraordinary powers; folk beliefs of non-literate people; and transformation of social systems by religious movements. Identical with REL 271.
Prerequisite(s): AN 102.

AN 282 - Archaeology of Civilizations (4)
Analysis of archaeological and written evidence to explain how civilizations developed and declined in the Old World and the New World. Examines cultural evolution from early farming and settlement to the rise and fall of complex civilizations. Prerequisite(s): AN 101.

AN 300 - Culture, Society and Technology (4)
Technology has played a critical role in all human evolution. This course provides an historical overview of the ways in which culture has shaped technology and how technology changes cultures. It emphasizes the impact of technology on modern cultures, especially technology emanating from the Western industrial revolution. Satisfies the university general education requirement in the social science knowledge exploration area or the Western civilization knowledge exploration area, not both.

AN 302 - Anthropological Research Methods (4)
Techniques of anthropological research emphasizing field research methods in cultural anthropology. May include some field work practice.
Prerequisite(s): AN 102 or SOC 100.

AN 305 - The Life Course in Anthropological Perspective (4)
Socialization from infancy to old age will be considered with examples drawn from a variety of non-industrial societies as well as the literature on primates. Theories of human development across cultures will be viewed in light of this evidence. Identical with WGS 305.

AN 307 - Culture and Society Through Film (4)
The systematic study of selected peoples from different cultures through the ethnographic film and appropriate readings, lectures and discussions. Students learn to evaluate cultural data according to various anthropological concepts and methodologies.

AN 308 - Native American Art (4)
Identical with AH 308.
Prerequisite(s): 4 credits in art history.

AN 309 - Pre-Columbian Art (4)
Identical with AH 309.
Prerequisite(s): 4 credits in art history or IS 250.

AN 310 - Psychological Anthropology (4)
Focuses on the relationship of culture and the individual; considers personality, perception, dreams, and other areas of psychological functioning in cross-cultural perspective and in relation to culture and personality theory.
Prerequisite(s): AN 102.

AN 320 - Law and Society (4)
Identical with SOC 320.
Prerequisite(s): AN 102 or SOC 100 or SOC 205.

AN 322 - The Food Quest (4)
Relationship of environment, subsistence activities and food-related technologies in a variety of non-industrial societies, including both of food collectors and food producers. Identical with ENV 322.

AN 331 - Racial and Ethnic Relations (4)
Identical with SOC 331. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the social science knowledge exploration area.
Prerequisite(s): SOC 100 or SOC 205 or AN 102.

AN 333 - Medical Anthropology (4)
Interaction between biological, ethno psychiatric and sociocultural environments in health, illness and treatment. Includes historical, organizational, demographic, ecological and other problems in health care delivery.
Prerequisite(s): AN 102 or SOC 100 or PSY 100.

AN 337 - Women's Lives in Cross-Cultural Perspective (4)
The lives of women in a variety of tribal and peasant societies, noting how beliefs, rituals and taboos shape the stages of the female life course and how culture influences women's reproductive and economic roles. Identical with WGS 337.
Prerequisite(s): AN 102 or WGS 200.

AN 350 - World Regional Geography (4)
Comparative study of the world's major geographic regions, applying data, methods and theory of geographical analysis. Students will acquire familiarity with these regions and the geographic factors that help to account for their similarities and differences Interaction between regions will also be examined. Identical with IS 350 and GEO 350.
Prerequisite(s): AN 200 or IS 200 or GEO 200.

AN 361 - Peoples and Cultures of India (4)
A survey of contemporary society and culture on the Indian subcontinent, with focus on India, Pakistan and Bangladesh; emphasis on social structure, folk religion and the problems of socio-cultural change.
Prerequisite(s): AN 102 or IS 240.

AN 362 - Peoples and Cultures of China (4)
An anthropological study of China, stressing the variety of cultural and ecological adaptations characteristic of that complex society.
Prerequisite(s): AN 102 or IS 210.

AN 363 - The Asian American Experience (4)
History of Asian migration to North America and adjustment patterns of Asian American immigrants. Students will study Americanization by making maps, charting kinships, interviewing informants, collecting and documenting life histories, analyzing folklore and taking photographs.
Prerequisite(s): AN 102 or SOC 100 or permission of instructor.

AN 370 - Archaeology of Mesoamerica (4)
The pre-Hispanic culture of Mexico and Guatemala, the Aztecs and Mayas, and their neighboring and derivative cultures. Detailed discussion of the major archaeological sites.
Prerequisite(s): AN 101 or AN 102.

AN 371 - Peoples and Cultures of Mexico and Central America (4)
Anthropological studies of Indian and Mestizo societies in Mexico and Guatemala, including their separate socio-economic patterns and their integration into a dualistic social system.
Prerequisite(s): AN 102 or IS 250.

AN 372 - Indians of South America (4)
A survey of the native South Americans. Includes warriors of the jungles, peasants and herders of the mountains, nomads of the plains and forests, and subsistence fishermen of the southern coasts.
Prerequisite(s): AN 102 or IS 250.

AN 374 - Cross Cultural Communication (4)
Identical with ALS 374. Satisfies the university general education requirement in U.S. diversity.

AN 375 - Language and Culture (4)
Identical with ALS 375.

AN 380 - Archaeology of North America (4)
Explores the archaeological heritage of North America beginning with founding prehistoric Native American populations and continuing into historical periods. Prerequisite: AN 101.

AN 381 - Peoples and First Nations of North America (4)
The cultures of certain Native Americans and Inuit (Eskimo) societies both in traditional times and in their relationship with Western society. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): AN 102.

AN 382 - Advanced Physical Anthropology (4)
The emergence and diversification of the human species in relation to the morphology and ecology of both modern and fossil man, including physical and physiological variation (sex, race and age), climatic adaptation and population genetics.
Prerequisite(s): AN 101.

AN 383 - Archaeological Field School (4 or 8)
Instruction and field research including site location, excavation, artifact analysis, and conservation. May be repeated for a total of 8 credits, at least 4 of which must be at an approved U.S. archaeological field school.
Prerequisite(s): AN 101 and permission of instructor.

AN 384 - Museum Studies in Archaeology (4)
The organization, goals and funding of archeological museums. Career preparation including hands-on practical experience in acquisitions, cataloging, preservation, display design and preparation, display evaluation, museum education and outreach programs.
Prerequisite(s): AN 101 or 383 or permission of instructor.

AN 385 - Historical Archaeology (4)
Study of historic cultures, lifeways, and processes of change through combined analysis of documents and material culture, such as settlement patterns, architecture, gravestones, and excavated ceramics, glass, or metal. Special attention given to intersecting cultural structures of gender, race, ethnicity, and class. Identical with WGS 385. Satisfies the university general education requirement in the knowledge application integration area. Prerequisite for knowledge application integration: completion of the university general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): AN 101 or AN 102 or permission of instructor.

AN 386 - Archaeology of Israel
Ancient cultures found in the ancient Near East with an emphasis on ancient Israel, the history of archaeological research in Israel and the region. Periods reviewed and case studies include the Neolithic (c. 10,000 BCE) to the early Roman Period (c. 1st century CE).

AN 387 – Archaeology, Ideology and Sacred Sites in the Ancient Near East (4)
Archaeology of sacred sites in the wider Near East beginning in the Neolithic period. Anthropological models concerning the archaeology of religion as a discipline are explored. Case studies include sacred sites relevant to Judaism, Christianity and Islam with an emphasis on the history of Jerusalem.

AN 391 - Primate Behavior (4)
Various bio-social factors that aid the nonhuman primates in their adaptation to the environment, implications for human behavior, classroom discussions and field studies.
Prerequisite(s): AN 101 or 102 or PSY 100 or SOC 100 or HRD 301.

AN 392 - Current Problems in Anthropology (4)
Seminar in which a topic or problem is studied in depth. Each seminar requires independent readings and writing. May be repeated for credit under different subtitle for up to 8 credits.
Prerequisite(s): SOC 100 or SOC 205 and instructor permission.

AN 395 - Special Topics in Anthropology (4)
Study of a special topic for which no regular course offerings currently exist. May be repeated for credit under different subtitle. May be used for approved course work taken during study abroad.
Prerequisite(s): anthropology major or permission of instructor.

AN 399 - Field Experience in Anthropology (4)
Field experience in anthropology with faculty supervision. An academic project related to the departmental discipline that incorporates student performance in an occupational setting. May not be repeated for credit.
Prerequisite(s): junior/senior standing; 16 credits in anthropology, of which at least 8 must be at the 300/400 level, and permission of the instructor.

AN 401 - Social Anthropology (4)
Examines social structure and social organization in anthropological perspective. Entails the study of economic, political, religious and kinship systems in the social life of man.
Prerequisite(s): AN 102.

AN 410 - Human Adaptation (4)
Examines current theory on the cultural and biological adaptation of human groups to natural and social environments. Identical with ENV 410.
Prerequisite(s): AN 101, 102 or 322.

AN 430 - Systems of Wealth and Power in Anthropological Perspective (4)
Concepts and methods of political and economic anthropology, emphasizing the interrelated state of political and economic phenomena, with particular reference to pre-industrial, non-Western societies.
Prerequisite(s): AN 102.

AN 470 - Anthropological Theory (4)
Surveys the major developments in the history of anthropological theory and traces their impact on present trends in the field. Introduces current theoretical perspectives. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major.
Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): AN 102. Must be an anthropology major.

AN 480 - Independent Study and Research (2 or 4)
A tutorial in which the student will pursue a course of reading and research with the instructor. May be repeated only once for credit.
Prerequisite(s): permission of instructor.

AN 497 - Apprentice College Teaching (2 or 4)
Supervised participation in teaching an undergraduate course in anthropology, combined with readings and discussion of teaching objectives and methods appropriate for anthropological presentation. May be taken once for credit toward a major. Prerequisite(s): Permission of instructor.

SOCIOLOGY

SOC 100 - Introduction to Sociology (4)
Introduction to the basic concepts of sociology relating to the study of people as participants in group life. Particular attention is given to culture, socialization and self-development, social class, and major social institutions. Satisfies the university general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.

SOC 202 - Introduction to Methods of Social Research (4)
The collection, organization, analysis and interpretation of social data; elementary techniques of understanding and using quantitative evidence in sociological research.
Prerequisite(s): SOC 100.

SOC 203 - Social Statistics with Computer Applications (4)
Introduction to social statistics emphasizing statistics and data analysis with the aid of computer-based statistical applications. Familiarizes students with the logic of behavioral statistics and the computation and interpretation of statistical analysis.
Prerequisite(s): SOC 100 and SOC 202.

SOC 205 - Current Social Problems (4)
Presents sociological approaches to analyzing social problems. Particular attention is given to evaluation of the causes and consequences of social problems, as well as of their proposed solutions.

SOC 206 - Self and Society (4)
Examines the reciprocal relationship between the individual and the group. Emphasizes the social roots of human nature, the self, social interaction, definitions of reality, socialization and social character. Satisfies the university general education requirement in the social science knowledge exploration area.

SOC 207 - Human Sexuality (4)
Examines human sexuality from a societal and interpersonal context. Includes methodological and conceptual issues in the study of sexuality; socialization and control of sexuality; sexuality as a social process; the influence of culture, race, and gender; and the social aspects of biological issues. Identical with WGS 207.
Prerequisite(s): SOC 100 or 206.

SOC 222 - Sociology of Mental Illness (4)
Examines social aspects of mental illness, such as impact of social inequalities, role of life stressors and supports, structures of confinement, self-help and human rights movements, narratives of experiences, trends of response to difference and distress.
Prerequisite(s): SOC 100 or SOC 205.

SOC 300 - Alcohol, Drugs and Society (4)
Overview of the sociology of substance use and abuse. Includes a review of sociological perspectives, social control of alcohol and drugs, descriptions of alcohol/drug behavior and treatment programs. Also explores ways in which substance abuse problems can be addressed by policy makers, health care professionals and practitioners in the field of substance abuse. Identical with CRJ 300.
Prerequisite(s): CRJ 100 or SOC 100.

SOC 301 - Social Stratification (4)
The concepts of class, caste and race in relation to social conflict and social integration. Students will study these problems in a cross-cultural perspective, emphasizing comparative materials.
Prerequisite(s): SOC 100 or SOC 205.

SOC 305 - Sociology of Religion (4)
An analysis of the social components of religious experience, meaning and behavior; emphasis on the relationship between organized religions and other social institutions and such processes as conversion, commitment, sectarianism, accommodation and secularization. Identical with REL 305.
Prerequisite(s): SOC 100 or SOC 205.

SOC 308 - Population Dynamics (4)
Examines population change from a national and international perspective. Emphasizes how race, class, and gender influence migration, fertility, and mortality. Provides an overview of how social factors influence population characteristics and affect the social world. Identical with WGS 308.
Prerequisite(s): SOC 100 or SOC 205.

SOC 315 - Social Welfare Policies (4)
Survey of the development of social welfare programs in the U.S. and internationally. Issues related to the problems of poverty, policy analysis and program evaluation related to social welfare in the U.S. and other countries are examined. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Identical with SW 315.
Prerequisite(s): SOC 100 or SW 210.

SOC 320 - Law and Society (4)
Explores the concept of law and its expression in different societies and cultural contexts. The comparative development of legal institutions is studied in relationship to social structure. The organization of the legal system and profession is studied as related to the capacity of the law to affect behavior as an instrument of social control. Identical with AN 320.
Prerequisite(s): SOC 100 or SOC 205 or AN 102.

SOC 323 - Delinquency and Juvenile Justice (4)
Identical with CRJ 323.
Prerequisite(s): CRJ 100.

SOC 324 - Corrections and Rehabilitative Institutions (4)
Overview of prison and correctional systems in the U.S. Includes reviews of the historical development of corrections and current issues, including sentencing practices, overcrowding, race relations, budget constraints, AIDS and substance abuse. Explores ways in which these problems are addressed by criminal justice practitioners.
Prerequisite(s): CRJ 100 or SOC 100.

SOC 326 - Family and Community Processes (4)
Introduction to theories, methods, and research on community sociology. Emphasis on prevention and intervention in the community setting. Provides conceptual foundation of the field with an overview of the integration of theory, research, and practice in individual, family and community processes.
Prerequisite(s): SOC 100 or SOC 205.

SOC 327 - Police and Society (4)
Identical with CRJ 327.
Prerequisite(s): CRJ 100

SOC 328 - Sociology of Health and Medicine (4)
The sociological study of medicine and the uses of sociology in medicine, definitions of health and illness, disease and death, health care occupations, medical malpractice, the organization of health services and trends in health and medicine.
Prerequisite(s): SOC 100 or SOC 205.

SOC 329 - Criminal Law and the Courts (4)
Identical with CRJ 329.
Prerequisite(s): CRJ 100.

SOC 330 - The Sociology of Deviance (4)
An overview of the sociology of deviance, including theoretical approaches, the social construction of deviance, and contemporary empirical research.
Prerequisite(s): SOC 100 or SOC 205.

SOC 331 - Racial and Ethnic Relations (4)
A study of racial, ethnic and religious groups, particularly those of the U.S., emphasizing their historical development, problems of adjustment and assimilation and contemporary problems and trends. Identical with AN 331. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the social sciences knowledge exploration area.
Prerequisite(s): SOC 100 or SOC 205 or AN 102.

SOC 335 - Sociology of Family (4)
Comparative and historical study of the family. Identical with WGS 335. Prerequisite(s): SOC 100 or SOC 205.

SOC 336 - Sociology of Gender (4)
The social construction of femininity and masculinity through social interaction and social institutions. Focus on education, family, media, politics, economy, and sport. Identical with WGS 336.
Prerequisite(s): SOC 100 or SOC 205.

SOC 337 - Interpersonal Relationships (4)
Focuses on interdisciplinary research of social and personal relationships, concentrating on how scholars investigate relational phenomena; the development, maintenance and dissolution of relationships; relational or couple processes; and influences of networks, norms, gender, ethnicity and social structure.
Prerequisite(s): SOC 100 or 206.

SOC 342 - The Surveillance Society (4)
Explores the development and significance of surveillance as a feature of modern society, how surveillance has changed over time with the development of new technologies, its presence in everyday life and different social institutions and contexts and the degree to which surveillance enhances social participation or social control in society. Identical with CRJ 342.
Prerequisite(s): CRJ 100 or SOC 100.

SOC 344 - Social Movements (4)
Examines the theoretical and empirical aspects of the origins, mobilization, organization, development and decline of social movements. Will focus on American, international and global social movements.
Prerequisite(s): SOC 100 or SOC 205.

SOC 345 - Urban and Community Sociology (4)
The social structure, culture and ecology of early and contemporary urban communities; institutional responses to the problems of modern urban life.
Prerequisite(s): SOC 100 or SOC 205.

SOC 346 – Communities (4)
Focuses on the forms and functions of local communities, including neighborhoods and social networks. Both theoretical and applied implications of these structures for community organization and development are explored.
Prerequisite(s): SOC 100 or SOC 205.

SOC 352 - Gender and Work (4)
A sociological study of women's domestic and labor market activity in historical context, with emphasis on understanding the causes and consequences of sex segregation. Identical with WGS 352.
Prerequisite(s): SOC 100 or WGS 200.

SOC 371 - Forms and Effects of Mass Communication (4)
Techniques of disseminating ideas and information through the mass media; evaluation of the effect of mass media on values of individuals and policies of institutions. Identical with COM 371.
Prerequisite(s): SOC 100.

SOC 373 - Social Control of Mass Media (4)
The major sociological factors that control the informational content of the mass media; differences between the structures and processes of control in the print and electronic sectors of the media. Identical with COM 373.
Prerequisite(s): SOC 371.

SOC 376 - Language and Society (4)
Identical with ALS 376.

SOC 381 - Theories of Modern Organizations (4)
Emphasizes degree to which modern society is based upon formal organization. Topics include: theories of human organization, as well as the study of bureaucracies, features of organizations and the effects of organization on American culture.
Prerequisite(s): SOC 100 or SOC 205.

SOC 392 - Current Problems in Sociology (2 or 4)
Seminar in which a topic is studied in depth. Each seminar requires independent readings and writing. May be repeated for credit under different subtitle for up to 8 credits.
Prerequisite(s): SOC 100 or SOC 205.

SOC 395 - Special Topics in Sociology (4)
Study of a special topic for which no regular course offerings currently exist. May be repeated for credit under different subtitle. May be used for approved course work taken during study abroad.
Prerequisite(s): sociology major or permission of instructor.

SOC 400 - Sociological Theory (4)
Major theoretical foundations of sociology, including conceptual contributions of both classic and contemporary theorists. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SOC 100 or SOC 205.

SOC 402 - Small Groups (4)
The study of small group relations and the informal understandings, codes and conventions that they generate. Considers dynamics of individuality, leadership, conformity and esprit de corps in a group setting. Identical with COM 402.
Prerequisite(s): SOC 100 or SOC 205.

SOC 404 - Queer Social Theory (4)
Analysis and overview of queer theories and their contribution to understanding the social construction of identity. Focus on the deconstruction of sexuality and the transgression of conventional gender identity and performance. Identical with WGS 404.
Prerequisite(s): SOC 100, WGS 200, or WGS 303

SOC 430 - Internship in Sociology (2 or 4)
Field placement and supervision of students in a community agency. Introduces interns to employment possibilities while they receive valuable field experience and build community contacts. Prerequisite(s): sociology major and instructor permission.

SOC 460 - Political Sociology (4)
Sociological factors that influence distribution of power within a society: political communication, maintenance of political consensus, the revolution process, the structure of political parties and the emergence of new states.
Prerequisite(s): SOC 100 or SOC 205.

SOC 465 - Sociological Perspectives on Aging (4)
Recent sociological perspectives on aging: topics include status of persons approaching and past retirement age, family and community roles and relations, and occupational and political participation.
Prerequisite(s): SOC 100 or SOC 205.

SOC 480 - Independent Study and Research (2 or 4)
Directed individual reading and research.
Prerequisite(s): permission of instructor.

SOC 497 - College Teaching Apprenticeship (2 or 4)
Supervised participation in teaching an undergraduate course in sociology, combined with readings and discussion of teaching objectives and methods appropriate for sociological presentation. May be taken only once for credit toward a major.
Prerequisite(s): senior sociology major and permission of instructor.

SOCIAL WORK

SW 210 - Introduction to Social Work (4)
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.
Prerequisite(s): SOC 100 or PSY 100.

SW 310 - Human Behavior and Social Environment (4)
Theories of human behavior and social environment. Examines biological, psychological, social, spiritual development in humans from birth to adolescence. Social systems theory is applied to analyze interactions between human behavior and social institutions. Explores role of culture, race, ethnicity, social class, gender, sexual orientation in human development and behavior.
Prerequisite(s): formal admission to social work program.

SW 311 - Human Behavior and Social Environment (4)
Presents theories of human behavior and social environment. Examines biological, psychological, social, spiritual development in humans from early to late adulthood. Social systems theory is applied to analyze interactions between human behavior and social institutions. Explores role of culture, race, ethnicity, social class, gender, sexual orientation in human development and behavior.
Prerequisite(s): SW 310.

SW 315 - Social Welfare Policies (4)
Survey of the development of social welfare programs in the U.S. and internationally. Issues related to the problems of poverty, policy analysis and program evaluation related to social welfare in the U.S. and other countries are examined. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Identical with SOC 315.
Prerequisite(s): SOC 100 or SOC 210 or SW 210.

SW 316 - Fundamentals of Social Work Practice (4)
Fundamental social work methods including documentation, listening skills, interviewing skills, relationship building, boundary setting and case management. Completion of a service learning requirement in preparation for internship.
Prerequisite(s): formal acceptance into the social work program.

SW 318 - Foundations for Multicultural Social Work (4)
Prepares students to work with multicultural and diverse populations. Emphasis on defining and developing skills for culturally competent social work generalist practice.
Prerequisite(s): formal acceptance into the social work program.

SW 358 - Death and Dying (4)
Interdisciplinary exploration of death and dying, focusing primarily on psychosocial, mental health, behavioral, and ethical issues.
Prerequisite(s): SOC 100 or PSY 100 or SOC 210 or SW 210.

SW 360 - Child Welfare (4)
Examination of the field of child welfare in a theoretical and practice perspective, exploring the nature of at-risk families and the role of social work services for abused and neglected children; current issues in child welfare and interventions as they relate to social work in child welfare settings.
Prerequisite(s): social work major.

SW 364 - Substance Abuse Theory and Practice I (4)
Comprehensive overview of the etiology of addiction and introduction to theoretical approaches used in prevention, intervention, and treatment. Examines the psychological, historical, cultural, social, biological, and medical perspectives of substance abuse and addiction.
Prerequisite(s): SOC 100 or PSY 100 or CRJ 100 or SW 210.

SW 365 - Substance Abuse Theory and Practice II (4)
Continuation of SW 364. Theoretical approaches to counseling and its practical applications in a variety of settings. Evidence-based treatments and different levels of counseling. Values, ethical and legal considerations, and professional organizations.
Prerequisite(s): SW 364.

SW 395 - Special Topics in Social Work (2 to 4)
Special topic for which no course offerings currently exist. May be repeated for credit under different subtitle.
Prerequisite(s): social work major or permission of instructor.

SW 405 - Social Work Practice I (4)
Prepares students for generalist social work practice involving individuals, families, other groups. Emphasizes how to engage clients, assess needs, provide intervention, terminate intervention, and evaluate outcomes. Provides conceptual framework for practicing social work in diverse settings; prepares students with skills for field placement; presents students values, ethical standards of the profession.
Prerequisite(s): SW 316.
Corequisite(s): SW 430, SW 431.

SW 406 - Social Work Practice II (4)
Prepares students for generalist social work practice involving task groups, organizations, communities. Focus on critical thinking about clients in context of larger environment; analyzing relevant interactions within groups, organizations, communities; analyzing operation of groups from political, economic, social perspectives. Examines issues of discrimination, social justice, and institutional racism.
Prerequisite(s): SW 405.
Corequisite(s): SW 432, SW 433.

SW 430 - Social Work Internship I (2)
Field placement in social service agency in which students are supervised by professional social workers. Students learn how to handle process notes, develop interviewing skills, investigate community resources, and interpret agency policies.
Prerequisite(s): SW 316.
Corequisite(s): SW 405, SW 431.

SW 431 - Social Work Seminar I (4)
Students present and analyze field experiences to develop capacity for self-awareness; development and appropriate application of social work knowledge, values, and skills. Review of helping process, generalist practice, and theoretical foundations. Prepares students to work with diverse and at-risk clients. Lays foundation for continuing professional development. Weekly seminar accompanies first-semester internship.
Prerequisite(s): SW 316.
Corequisite(s): SW 405, SW 430.

SW 432 - Social Work Internship II (2)
Second field placement in a social service agency in which students are supervised by professional social workers. Students learn how to handle process notes, develop interviewing skills, investigate community resources, and interpret agency policies.
Prerequisite(s): SW 405, SW 430 and SW 431.
Corequisite(s): SW 406, SW 433.

SW 433 - Social Work Seminar II (4)
Weekly seminar held in conjunction with second semester of the social work internship. Students analyze field experiences to further enhance self-awareness, and the development and appropriate application of social work knowledge, values and skills in practice. Capstone course in which students complete a major integrative paper and portfolio. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): SW 405, SW 430 and SW 431.
Corequisite(s): SW 406 and SW 432.

CRIMINAL JUSTICE

CRJ 100 - Introduction to Criminal Justice (4)
Introduction to the study of crime and criminal justice in the United States. Provides an overview of crime statistics, types of offenses, police roles, courts and correctional agencies, and public policy. Includes a comparison of street crime with white-collar crime. Required for all majors and minors in criminal justice.

CRJ 200 - Criminological Theory (4)
Provides foundational knowledge about criminological theory essential for success in more advanced criminal justice courses. Topics include the origins of criminology in the U.S. and both classical and contemporary criminological theoretical approaches to the study of crime, crime causation, and crime control strategies.
Prerequisite(s): CRJ 100 with a minimum grade of 2.5

CRJ 300 - Alcohol, Drugs and Society (4)
Overview of the sociology of substance use and abuse. Reviews sociological perspectives, social control of alcohol and drugs, descriptions of alcohol/drug behavior and treatment programs. Explores how substance abuse problems can be addressed by policy makers, lawmakers, health care professionals, and criminal justice officials. Identical with (SOC 300).
Prerequisite(s): CRJ 100 with a grade of 2.5 or higher required for Criminal Justice majors or minors, or SOC 100.

CRJ 320 - Criminology and Public Policy in Criminal Justice (4)
Overview of problems conducting research and policy evaluation in criminal justice agencies, including history of policy research and deterrence, rehabilitation, gun control, sex offenders, drug use/prevention, sentencing practices, mass incarceration, community based-corrections and democratic policing.
Prerequisite(s): CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 323 - Delinquency and Juvenile Justice (4)
Overview of the nature and types of delinquency, its relation to adolescence and the social situation, processing by the juvenile justice system. Examines juvenile court procedures, detention facilities, adjudication issues, life without parole sentences, delinquency prevention, and treatment programs. Identical with SOC 323.
Prerequisite(s): CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 324 - Corrections and Rehabilitative Institutions (4)
Overview of prison and correctional systems in the U.S. Includes reviews of the historical development and current issues in corrections, including sentencing practices, overcrowding, race relations, budget constraints, substance abuse. Explores ways in which these problems are addressed by criminal justice practitioners.
Prerequisite(s): CRJ 200 with a grade 2.5 or higher required for Criminal Justice majors and minor

CRJ 327 - Police and Society (4)
Examines the history and role of the police in modern society. Special attention given to analyzing the police subculture and problems inherent in the control of the citizenry and police, handling special populations, the police as a quasi-militaristic bureaucracy, surveillance techniques on the police organization and issues of police deviance. Identical with SOC 327.
Prerequisite(s): CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 329 - Criminal Law and the Courts (4)
Overview of the criminal law and sentencing within the U.S. criminal justice system. Focuses on criminal law and procedures as it relates to the processing of criminal offenders by the courts. The roles of judges, court officers, jury and attorneys are described and analyzed in the context of their professional matrix. Identical with SOC 329.
Prerequisite(s): CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 330 - Women, Crime and Justice (4)
Exploration of various issues related to women's experiences with the criminal justice system as offenders, victims, and practitioners. Uses feminist criminological scholarship to examine: the historical place of women in the study of crime, explanations of men's and women's offending, the relationship between women's victimization and offending behaviors, and the role of women in traditionally male-dominated criminal justice careers. Identical with WGS 330.
Prerequisite(s): CRJ 100 with a grade of 2.5 or higher required for Criminal Justice majors and minors, or WGS 200.

CRJ 332 - Race/Ethnicity, Crime and Justice (4)
Socio-historical analysis of the effects of race and ethnicity on legitimate social opportunities, criminal behavior, victimization, and differential judicial processing. Analysis of the impact of assimilation and acculturation on criminal behavior, victimization, and criminal justice processes. Prerequisite(s): CRJ 100 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 340 - White-Collar Crime (4)
Overview of white-collar crime and deviance, corporate and organizational crime, and political crimes both by and against the state.
Prerequisite(s): CRJ 100 with a minimum grade of 2.5 required for Criminal Justice majors and minors.

CRJ 341 – Cybercrime (4)
Overview of cybercrime from a criminal justice perspective. Examines types of computer and cybercrimes, the hacker subculture, cybercrime prevention, information security and investigative methodologies, and the legal and social issues (e.g., jurisdiction, privacy) inherent in detection and control.
Prerequisite(s): CRJ 100 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 342 - The Surveillance Society (4)
Explores the development and significance of surveillance as a feature of modern society, how surveillance has changed over time with the development of new technologies, its presence in everyday life and different social institutions and contexts and the degree to which surveillance enhances social participation or social control in society. Identical with SOC 342.
Prerequisite(s): CRJ 100 OR SOC 100.

CRJ 346 - Profiling and Threat Assessment (4)
Critical examination of criminal profiling including crime scene, psychological, and offender profiling. Discusses ethnic, racial, and behavioral profiling, equivocal death analysis and the geographical profiling of serial killers and rapists. Reviews threat assessment models as applied to school shooters, stalking behavior and terrorists with emphasis on the empirical validity of intelligence analysis.
Prerequisite: CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 348 - Terrorism and Homeland Security (4)
Examines the threat of terrorism within U.S. borders, countermeasures employed to protect critical infrastructures and the key resources of homeland security. Critically reviews the effectiveness of anti-terror and counter-terror strategy and tactics.
Prerequisite(s): CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 360 - Criminal Careers and Career Criminals (4)
Overview of types of juvenile and adult criminal careers. Examines patterns of offending and desistance across the live course, and the individual, cultural, and structural factors that influence motivations and opportunities for both offending and desistance.
Prerequisite: CRJ 200 with a grade of 2.5 or higher required for Criminal Justice majors and minors.

CRJ 365 - Critical Incident Analysis (4)
Analysis of critical incidents: relatively brief and usually traumatic occurrences involving injury, loss, conflict, discovery or change of significant proportion with the potential to alter existing societal norms or threaten the bonds of trust that bind communities. Examines the types of incidents (natural events, human error/accidents, intentional acts/terrorism), and the responses at the local, state, and national levels to understand similarities and differences among incidents.
Prerequisite(s): CRJ 100 or SOC 100 or permission of instructor.

CRJ 395 - Special Topics in Criminal Justice (4)
Study of a special topic for which no regular course offerings currently exist. May be repeated for credit under a different subtitle.
Prerequisite(s): Criminal justice major or minor or permission of instructor.

CRJ 430 - Internship in Criminal Justice (4)
Field placement and supervision of students in an approved criminal justice agency requiring the completion of associated course work to receive academic credit. Prerequisite: all required and core classes for the major and approval of director of field placement. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.

CRJ 480 - Independent Study and Research (2 or 4)
Directed individual reading and research.
Prerequisite(s): Permission of instructor.

CRJ 490 - Capstone: Criminal Justice Policy Analysis (4)
Capstone seminar in which students demonstrate the ability to link theoretical knowledge and empirical evidence about a key criminal justice question to inform and improve public policy. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Prerequisite(s): CRJ 200 and CRJ 430, each with a grade of 2.5 or higher, and senior standing.

CRJ 495 - Capstone Level Project (4)
Qualifies as a capstone experience in the major. Course content to be determined by instructor.
Prerequisite(s): senior standing and permission of instructor.

CRJ 497 – College Teaching Apprenticeship (2 or 4)
Supervised participation in teaching an undergraduate course in criminal justice combined with readings and discussion of teaching objectives and methods appropriate for presentation of criminal justice curriculum. May be taken only once for credit toward a major.
Prerequisite(s): Criminal justice major and permission of instructor.

Women and Gender Studies Program

(248) 370-2154
Program Website: oakland.edu/wgs

Director: *Jo Reger (Sociology)*

Women and Gender Studies Executive Committee: *Fabia Ursula Battistuzzi (Biological Sciences), Amy Banes-Berceli (Biological Sciences), Ami Harbin (Philosophy and Women and Gender Studies),Valerie Palmer-Mehta (Communication), Erin A. Meyers (Communication), George Sanders (Sociology), Anne Switzer (Kresge Library), Anja Wieden (Modern Languages and Literature)*

Chief adviser: *Jo Reger (Sociology)*

Women and Gender Studies is an interdisciplinary field devoted to the study of the dynamics of gender, sex and power. Particular attention is given to differences among women in various social and cultural contexts, the representation of women in literature, art and the media, and the conditions that promote and impede women's progress. In addition, women and gender studies puts gender, what it means to be feminine or masculine, at the center of the analysis. This includes questioning how gender shapes societal participation, privileges, statuses, and experiences. Women and gender studies uses feminist methodologies and theories to describe and analyze the impact of social movements, historical events, public policy and other social forces on women and men. Specific attention is given to how gender intersects with race, class, sex, sexual identity, national identity and religion.

Requirements for the liberal arts major in women and gender studies, B.A. program

The major requires a minimum of 40 credits in women and gender studies, distributed as follows:

1. Core courses

- WGS 200 - Introduction to Women and Gender Studies (4)
- WGS 320 - Feminist Theory (4)
- WGS 321 - Methods of Feminist Analysis (4)
- WGS 399 - Field Experience in Women and Gender Studies (4)
- WGS 405 - Women and Gender Studies Capstone Course (4)

Note
Students must earn a grade of at least 2.0 in both WGS 200 and WGS 320.

2. Five courses selected from

- WGS 207 - Human Sexuality (4) or SOC 207 - Human Sexuality (4)
- WGS 301 - Special Topics in Women and Gender Studies (4)
- WGS 302 - Global Women, Global Issues (4)
- WGS 303 - Introduction to LGBTQ Studies (4)
- WGS 305 - The Life Course in Anthropological Perspectives (4) or AN 305 - The Life Course in Anthropological Perspective (4)
- WGS 307 - Philosophy of Gender (4) or PHL 305 - Philosophy of Gender (4)
- WGS 308 - Population and Society (4) or SOC 308 - Population and Society (4)

- WGS 311 - Women and Politics (4) or PS 311 - Women and Politics (4)
- WGS 322 - Women in Modern America (4) or HST 322 - Women in Modern America (4)
- WGS 325 - Issues in Women's Health (4) or WHP 325 - Issues in Women's Health (4)
- WGS 326 - Family and Community Processes (4)
- or SOC 326 - Family and Community Processes
- COM 327 - Gender Communication (4)
- WGS 330 - Women, Crime and Justice (4) or CRJ 330 - Women, Crime and Justice (4)
- WGS 335 - Sociology of Family (4) or SOC 335 - Sociology of Family (4)
- WGS 336 - Sociology of Gender (4) or SOC 336 - Sociology of Gender (4)
- WGS 337 - Women's Lives in Cross-Cultural Perspective (4) or AN 337 - Women's Lives in Cross-Cultural Perspective (4)
- WGS 339 - Women in Early Modern Europe (4) or HST 339 - Women in Early Modern Europe, 1500-1789 (4)
- WGS 343 - Gender Discrimination and the Supreme Court (4) or PS 343 - Gender Discrimination and the Supreme Court (4)
- WGS 351 - Women in Art (4) or AH 351 - Women in Art (4)
- WGS 352 - Gender and Work (4) or SOC 352 - Gender and Work (4)
- WGS 361 - History of American Families (4) or HST 361 - History of American Families (4)
- WGS 362 - History of African-American Women (4) or HST 362 - History of African-American Women (4)
- WGS 364 - Gender and Int'l Relations (4) or PS 364 - Gender and Int'l Relations (4)
- WGS 374 - Psychology of Gender (4) or PSY 346 - Psychology of Gender (4)
- WGS 375 - Women in China: Past and Present (4) or HST 375 - Women in China: Past and Present (4)
- WGS 382 - Sexual Orientation, Gender Identity and Education (4)
- WGS 385 - Historical Archaeology (4) or AN 385 - Historical Archaeology (4)
- WGS 387 - Media, Gender and Sexuality (4) or COM 387 - Media, Gender and Sexuality (4)
- WGS 400 - Directed Research in Women and Gender Studies (2 OR 4)
- WGS 401 - Advanced Topics in Women and Gender Studies (4)
- WGS 404 - Queer Social Theory (4)
- or SOC 404 - Queer Social Theory
- WGS 481 - Gender Socialization in the Schools (4) or EED 481 - Gender Socialization in Schools (4)

Notes

At least 28 credits counted towards the major must be at the 300 level or above.

To remain in good standing, students must complete all other courses in the major with a cumulative grade point average of at least 2.00.

Students using this catalog to meet women and gender studies major requirements may also use any course subsequently approved as satisfying requirements in the electives category (requirement #2) and published in a later catalog.

For students electing a major in Women and Gender Studies and a minor in LGBTQ Studies, only 4 credits of course overlap between the two programs is allowed.

Program honors

To be a candidate for honors in women and gender studies, students must be graduating seniors who have taken a minimum of 20 credits of their women and gender studies major course work at Oakland University and have earned a minimum GPA of 3.60 in that coursework with an overall minimum GPA of 3.0. In addition, a letter of reference is required concerning the student's volunteer involvement in a service activity relevant to women's issues.

For students electing a major in Women and Gender Studies and a minor in LGBTQ Studies, only 4 credits of course overlap between the two programs is allowed

Additional information

PA 510 and PA 511 are graduate level courses open to undergraduate students with instructor, and women and gender studies director permission.

Requirements for a liberal arts minor in women and gender studies

To earn a minor in women and gender studies, students must complete a minimum of 20 credits in women and gender studies distributed as follows:

a. Core courses

- WGS 200 - Introduction to Women and Gender Studies (4) (minimum grade of 2.0 required)
- WGS 320 - Feminist Theory (4) (minimum grade of 2.0 required)
- WGS 321 - Methods of Feminist Analysis (4)

b. Eight WGS elective credits at the 300 level or above

Courses must be chosen from the list of WGS electives offered for the women and gender studies major.

LGBTQ Studies Minor

The minor in LGBTQ (Lesbian, Gay, Bisexual, Transgender, Queer) studies combines historical, social science, interpersonal and institutional investigations of sexualities, sexual identities and gender identities in U.S. and global contexts. The minor provides an overview to the subject, a theoretical framework and hands-on experience in the form of internships as well as examinations into culture and institutions such as education. To earn a minor in LGBTQ Studies, students must complete a minimum of 20 credit hours as follows:

Core:

- WGS 303 - Introduction to LGBTQ Studies (4) Offered in fall.
- WGS 399 - Field Experience in Women and Gender Studies (4) with approval of the WGS director.
- WGS 404 - Queer Social Theory (4)

Courses are sequenced to make completing the minor in a timely manner possible.

8 credits from the following list:

- WGS 207 - Human Sexuality (4) or SOC 207 - Human Sexuality (4)
- WGS 336 - Sociology of Gender (4) or SOC 336 - Sociology of Gender (4)
- WGS 382 - Sexual Orientation, Gender Identity and Education (4) or EST 582 - Sexual Orientation, Gender Identity
  and Education (4)
- WGS 387 - Media, Gender and Sexuality (4) or COM 387 - Media, Gender and Sexuality (4)

- Students may petition to have additional courses such as WGS 301 - Special Topics in Women and Gender Studies count for the minor.

Note
For students electing a major in Women and Gender Studies and a minor in LGBTQ.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

WGS 200 - Introduction to Women and Gender Studies (4)
Interdisciplinary and comparative overview of fundamental women and gender studies concepts and topics as they relate to history, culture, literature, economics, class, ethnicity, race, theories and methods. Satisfies the university general education requirement in the social science knowledge exploration area, or may be used in lieu of one of the College of Arts and Sciences' distribution categories, not both. Satisfies the university general education requirement in U.S. diversity.

WGS 207 - Human Sexuality (4)
Identical with SOC 207.
Prerequisite(s): SOC 100 or SOC 206.

WGS 301 - Special Topics in Women and Gender Studies (4)
Topics vary from year to year. May be repeated for additional credit under different subtitles.

WGS 302 - Global Women, Global Issues (4)
Examines lives of women in a global perspective. Takes an intersectional perspective that views gender, sex, race, nationality, ethnicity, religion and sexual orientation as influencing life opportunities. Focus on issues of health, war, religion, education, global economy and development. Satisfies the university general education requirement in the global perspective knowledge exploration area or the social science knowledge exploration area, not both.

WGS 303 - Introduction to LGBTQ Studies (4)
Interdisciplinary and comparative overview of fundamental lesbian, gay, bisexual and transgender (LGBT) concepts as they relate to history, culture, literature, and theory. Particular focus on race, ethnicity, social class, and gender.

WGS 305 - The Life Course in Anthropological Perspectives (4)
Identical with AN 305.

WGS 307 - Philosophy of Gender (4)
Identical with PHL 305.
Prerequisite(s): WRT 160 and one course in philosophy or one course in women and gender studies.

WGS 308 - Population and Society (4)
Identical with SOC 308.
Prerequisite(s): SOC 100 or 205.

WGS 311 - Women and Politics (4)
Identical with PS 311.

WGS 320 - Feminist Theory (4)
Overview of variations in feminist theory with emphasis on current social issues. Includes analysis of categories such as gender, sexual identity, race/ethnicity and class.
Prerequisite(s): WGS 200.

WGS 321 - Methods of Feminist Analysis (4)
Explores how connections among epistemologies, methodologies and research methods are formed in traditional disciplines. Feminist critiques of these epistemologies. Introduction to feminist critiques of research and to a range of research methods utilized by feminist scholars.
Prerequisite(s): WGS 200.

WGS 322 - Women in Modern America (4)
Identical with HST 322.
Prerequisite(s): WRT 160.

WGS 325 - Issues in Women's Health (4)
Examines the medical, sociological, political and financial aspects of women's health issues. Includes an historical look at women's health in the U.S., the roles women have played in health care and the role of women as health care providers. Identical with WHP 325.

WGS 326 - Family and Community Processes (4)
Identical with SOC 326.
Prerequisite(s): SOC 100 or SOC 205.

WGS 330 - Women, Crime and Justice (4)
Identical with CRJ 330.
Prerequisite(s): CRJ 100 or WGS 200.

WGS 335 – Sociology of Family (4)
Identical with SOC 335.
Prerequisite(s): SOC 100 or SOC 205.

WGS 336 - Sociology of Gender (4)
Identical with SOC 336.
Prerequisite(s): SOC 100 or SOC 205.

WGS 337 - Women's Lives in Cross-Cultural Perspective (4)
Identical with AN 337.
Prerequisite(s): AN 102 or WGS 200.

WGS 339 - Women in Early Modern Europe(4)
Identical with HST 339.
Prerequisite(s): WRT 160.

WGS 343 - Gender Discrimination and the Supreme Court (4)
Identical with PS 343.

WGS 351 - Women in Art (4)
Identical with AH 351.
Prerequisite(s): AH 101 or WGS 200.

WGS 352 - Gender and Work (4)
Identical with SOC 352.
Prerequisite(s): SOC 100 or WGS 200.

WGS 361 - History of American Families (4)
Identical with HST 361. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160.

WGS 362 - History of African-American Women (4)
Identical with HST 362. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160.

WGS 364 - Gender and Int'l Relations (4)
Identical with PS 364.

WGS 365 - Women Writing Autobiography (4)
Identical with WRT 365.
Prerequisite(s): WRT 160.

WGS 374 - Psychology of Gender (4)
Identical with PSY 346. Prerequisite(s): PSY 100 with a grade of 2.0 or higher.

WGS 375 - Women in China: Past and Present (4)
Identical with HST 375.
Prerequisite(s): WRT 160 or equivalent with a grade of 2.0 or higher.

WGS 382 - Sexual Orientation, Gender Identity and Education (4)
Examines the intersections of sexual orientation, gender identity and education from multiple perspectives. Analyzes current law and educational policy as they relate to lesbian, gay, bisexual and transgender students and families and introduces essentialist and constructivist concepts of sexuality. Immersion/service project required for 4 credits. Satisfies the university general education requirements in U.S. Diversity. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

WGS 385 - Historical Archaeology (4)
Identical with AN 385. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the university general education requirement in the social science knowledge exploration area. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): AN 101 or AN 102.

WGS 387 - Media, Gender and Sexuality (4)
Identical with COM 387.

WGS 398 - Field Experience in LGBTQ Studies (4)
Field experience in LGBTQ studies with faculty supervision. An academic project involving field work or community activism. May not be repeated for credit.
Prerequisite(s): junior or senior standing; WGS 303 and WGS 404 or approval of program director.

WGS 399 - Field Experience in Women and Gender Studies (4)
Field experience in women and gender studies with faculty supervision. An academic project involving field work or community activism around an issue of importance in women and gender studies. May not be repeated for credit.
Prerequisite(s): junior/senior standing. Minimum of 16 credits in the major including WGS 320, WGS 321 or approval of women's studies director.

WGS 400 - Directed Research in Women and Gender Studies (2 or 4)
Directed individual study and advanced scholarly research in women and gender studies.
Prerequisite(s): approval of faculty adviser and women and gender studies director.

WGS 401 - Advanced Topics in Women and Gender Studies (4)
Course content varies. Representative topics include research methods in women and gender studies.

WGS 404 - Queer Social Theory (4)
Analysis and overview of queer theories and their contribution to understanding the social construction of identity. Focus on the deconstruction of sexuality and the transgression of conventional gender identity and performance.
Prerequisite(s): SOC 100, WGS 200, or WGS 303.

WGS 405 - Women and Gender Studies Capstone Course (4)
Provides students the opportunity to integrate their theoretical and practical work in women and gender studies. Students examine a subject using critical analysis and methodological skills, and demonstrate their abilities through class discussion, presentations and critical writing assignments. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): junior or senior standing. 16 credits in women and gender studies courses including WGS 320 and WGS 321 or approval of women and gender studies director.

WGS 481 - Gender Socialization in the Schools (4)
Identical with EED 481.

Department of Writing and Rhetoric

378 O'DOWD HALL
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Chairperson: *Lori Ostergaard*

Professors emeriti: *Barbara Hamilton, Margaret Pigott, Ronald A. Sudol*

Professor: *Alice S. Horning*

Associate professors: *Wallis May Andersen, Greg Giberson, Marshall W. Kitchens, Jim Nugent, Lori Ostergaard*

Assistant professors: *Elizabeth G. Allan, Felicia Chong, David Hammontree, Crystal VanKooten, Josephine Walwema*

Special instructors: *Bernadette Dickerson, Kasia G. Kietlinska*

Special lecturers: *Glen Armstrong, Benjamin Bennett-Carpenter, Allison Bohn, Marilyn Borner, Karen Brehmer, Timothy Briggs, Matthew Burkett, Jill Chroback, Jennifer Coon, LaWanda Dickens, Colleen Doyle, Matthew Ferguson, Emily Francis, Emily Freeman, John Freeman, Laura Gabrion, Charlie Gragg, Tara Hendin, Lisa Hine, Jenna Katz, Laura Klein, Amanda Laudig, Kathleen Lawson, Catherine Jostock, Christina Moore, Cindy Mooty, Donatella Perfetto, Cornelia Pokrzywa, Colleen Potocki, Leba Rautbort, Lauren Rinke, Rebecca Rivard, Cathy Rorai, William Rouster, Sheryl Ruszkiewicz, Kathy Skomski, Craig Smith, Melissa St. Pierre, Pamela Todoroff, Jason Torrente, Carol Trupiano*

Lecturers: *Laura Colbeck, Christina Hall, Shaun Moore, Sherry Wynn Perdue*

Chief adviser: *Jim Nugent*

The study of writing and rhetoric prepares students to read, write and think critically in local, national, global and virtual communities. Students gain experience evaluating and analyzing information and cultural debates, and they learn to compose a variety of texts for multiple audiences, media, and purposes.
The department's First-Year Program helps students develop fundamental skills in producing and understanding written texts, develop fluency and flexibility in writing for a variety of audiences and situations, and become critical readers and skilled writers of print, digital and visual texts that incorporate the work of others appropriately for audience, topic and purpose.

Students majoring in writing and rhetoric learn to perform the kinds of collaborative work in written communication that will be required of them for full participation in an increasingly global and high-tech society, whether they choose to focus on professional writing in business, industry and non-profits; or on production work in digital media; or on academic writing and research in preparation for graduate studies.
The department supports a larger culture of writing including the Oakland University Writing Center, the Meadow Brook Writing Project, and the Writing Excellence Awards.

Writing Foundations

Most students satisfy the university general education requirement in the writing foundations area by completing WRT 160 with a grade of 2.0 or higher. Please consult the Writing Requirements section in the general education area of the catalog for alternate ways of fulfilling this requirement.

Placement

The ACT English (or SAT equivalent) score is the main mechanism used to place students in the writing foundations course (WRT 160), and in any courses that students might need as a prerequisite to WRT 160 as follows:

ACT English scores of 28 (or SAT equivalent) or higher place students in WRT 160 Composition II.
ACT English scores of 16-27 (or SAT equivalent) place students in WRT 150 Composition I.
ACT English scores of 15 (or SAT equivalent) or below place students in WRT 102 Basic Writing.
Placement by ACT (or SAT equivalent) score does not yield any course credit regardless of where students are placed.

Students with questions about placement in first year writing should consult the Department of Writing and Rhetoric, 378 O'Dowd Hall, 248-370-2746, prior to the beginning of the semester in which they plan to enroll in first year writing. Students are responsible for knowing registration deadlines and understanding the implications of schedule changes for their financial aid.

Requirements for the liberal arts major in writing and rhetoric, B.A. program

The major in writing and rhetoric requires a minimum of 40 credits in writing and rhetoric courses. Only courses in which the student has earned a grade of at least 2.0 or higher may be counted toward the writing and rhetoric major.

1. Twelve credits from core courses

- WRT 340 - Contemporary Issues in Writing and Rhetoric (4)
- WRT 342 - History of Rhetoric (4)
- WRT 394 - Literacy, Technology, and Civic Engagement (4)

2. Eight credits from WRT electives at the 200 level or above

Students may substitute appropriate courses from other departments with permission of the Writing and Rhetoric Department chair.

3. Sixteen credits from one area of specialization

Choose either the professional writing, writing for digital media, or writing studies specialization. Students may substitute appropriate courses from other specializations within the major with the permission of the writing department chair.

A. Professional Writing

- WRT 331 - Introduction to Professional Writing (4)

Plus three courses from

- WRT 333 - Editing (4)
- WRT 335 - Writing for Human Resource Professionals (4)
- WRT 350 - Community Service Writing (4)
- WRT 380 - Special Topics in Professional Writing (4)
- WRT 381 - Science Writing (4)
- WRT 382 - Business Writing (4)

- WRT 386 - Workshop in Creative Non-Fiction (4)
- WRT 486 - Advanced Creative Nonfiction (4)

B. Writing for Digital Media

- WRT 232 - Introduction to Writing for Digital Media (4)

Plus three courses from

- WRT 231 - Podcasting (4)
- WRT 233 - Digital Storytelling (4)
- WRT 330 - Digital Identity and Culture (4)
- WRT 332 - Rhetoric of Web Design (4)
- WRT 334 - Rhetoric and Video Games (4)
- WRT 370 - Special Topics in Writing Studies (2 OR 4)

C. Writing Studies

- WRT 329 - Introduction to Writing Studies (4)

Plus three courses from

- WRT 305 - Advanced Writing: Art of Persuasion (4)
- WRT 320 - Writing Center Studies and Tutoring Practice (4)
- WRT 360 - Global Rhetorics (4)
- WRT 364 - Writing About Culture: Ethnography (4)
- WRT 414 - Teaching College Writing (4)
- WRT 460 - Writing Across the University: Language and Disciplinary Culture (4)
- WRT 497 - College Teaching Apprenticeship (2 OR 4)

4. One senior capstone course chosen from

- WRT 491 - Capstone (4)

Note

Students using this catalog to meet writing and rhetoric major requirements may also use any course subsequently approved as satisfying requirements under the specialization elective category.

Requirements for the liberal arts minor in writing and rhetoric

To earn a minor in writing and rhetoric, students must complete a minimum of 20 credits at the 200 level or above. Only courses in which the student has earned a grade of 2.0 or higher may be counted toward the writing and rhetoric minor.

1. Core courses - 8 credits

A One course from the following:

- WRT 232 - Writing for New Media (4)
- WRT 329 - Composition Studies (4)
- WRT 331 - Introduction to Professional Writing (4)

B. One course from the following:

- WRT 340 - Issues in Writing and Rhetoric Studies (4)
- WRT 342 - History of Rhetorical Studies (4)

- WRT 394 - Literacy, Technology, and Civic Engagement (4)

2. Twelve credits from additional WRT courses at the 200 level or above

Students using this catalog to meet writing and rhetoric minor requirements may also use any course subsequently approved as satisfying requirements in a particular group and published in a later catalog.

Note

Students using this catalog to meet writing and rhetoric minor requirements may also use any course subsequently approved as satisfying requirements in a particular group and published in a later catalog.

Departmental Honors

Writing and Rhetoric majors with a combined GPA of 3.6 in courses taken within the major will qualify for departmental honors.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

WRT 102 - Basic Writing (4)

Developing writing skills including idea generation and invention, organizational strategies and conventional usage in expository prose. Emphasis on developing fluency and effective writing processes. May be repeated once for additional credit. Graded S/U.
Corequisite(s): WRT 104 if recommended by instructor after first class meeting.

WRT 104 - Supervised Study (1 or 2)

Tutorial instruction in areas mutually agreed upon by student and instructor such as independent or academic writing projects. May be taken concurrently with other rhetoric courses (seven weeks or 14 weeks). May be repeated for up to 8 credits. Graded S/U.

WRT 140 - Critical Thinking and Reading (4)

Analysis of main ideas and organizational patterns used in academic texts, synthesis of different passages for readers' own purposes, and evaluation of written and digital materials, focusing on non-fiction prose. Emphasis on developing flexible reading wrskills for personal and professional use.

WRT 150 - Composition I (4)

Emphasizes the rhetorical and stylistic demands of college writing through focus on experiential, analytical, and expressive writing. Students learn to generate, organize and develop their ideas and to make choices as writers that are appropriate to the rhetorical situation. A grade of 2.0 or higher must be achieved to advance to WRT 160.
Prerequisite(s): placement by ACT English score, or WRT 102 with a grade of 2.0 or higher.
405

WRT 160 - Composition II (4)

Methods of writing and research including the use of rhetorical strategies and synthesis of scholarly sources to create academic arguments. Emphasizes processes of writing and revision with a focus on information literacy, critical thinking, and effective communication in diverse rhetorical contexts. A grade of 2.0 or higher must be achieved to satisfy the university general education requirement in the writing knowledge foundation area.
Prerequisite(s): WRT 150 with a grade of 2.0 or higher or placement.

WRT 231 - Podcasting (4)
Explores the rhetorical, ethical, and technical principles of creating personal and ethnographic essays and oral histories for digital audio distribution.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 232 - Writing for Digital Media (4)
Introduction to the rhetorical, ethical, stylistic, and technical principles of digital composition and web authoring.
Prerequisite(s): Completion of the university writing foundation requirement.

WRT 233 - Digital Storytelling (4)
Explores the rhetorical, ethical, stylistic and technical principles of creating personal, observational, and ethnographic narratives through visual and digital productions - slide shows, graphic-intensive web sites, posters, flip books, and comics.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 305 - Advanced Writing: Persuasion (4)
Students will read and write about and within increasingly complex rhetorical situations within chosen themes. Themes provide opportunity to explore new and emerging genres and contexts for writing, while gaining insight and experience with the importance of writing for various parts of society.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 320 - Writing Center Studies (4)
Peer tutoring theories and pedagogies, and practical experience in teaching. Work divided between classroom and tutoring assignments. Particularly valuable for majors in the humanities, education, psychology, human services and related fields. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): a grade of 3.0 or better in WRT 160 or its equivalent.

WRT 329 – Introduction to Writing Studies (4)
Survey of composition-rhetoric as an academic discipline, including an examination of the history, theory, research, curricula, and practices associated with composition-rhetoric in the university.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 330 - Digital Identity and Culture (4)
Examination of the rhetoric and ethics of internet technology and culture. Introduces theories of digital culture and its effects on both on-line and actual identities and communities, especially in relation to ethnicity, gender, class, physical ability, and sexual orientation. Includes individual and collaborative analysis and construction of Web projects. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 331 - Introduction to Professional Writing (4)
Introduction to the field of professional writing. Examines the theories, practices, technologies, and ethics of professional writing in the workplace.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 332 - Rhetoric of Web Design (4)
An intermediate course in the rhetorical, ethical, stylistic, and technical principles of web design. Applies the rhetorical principles and research methods learned in the prerequisite courses to the effective production of web documents.
Prerequisite(s): WRT 160 and WRT 232 or permission of instructor.

WRT 333 – Editing (4)
Theory and practice of editing within professional contexts.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 334 - Rhetoric and Video Games (4)
Introduction to the rhetorical, ethical, stylistic, and technical principles of video games and gaming culture.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 335 - Writing for Human Resource Professionals (4)
Theory and practice of workplace writing for human resource and management professionals. Emphasizes rhetorical analysis for internal workplace writing situations using formats such as letters, memos, procedures, proposals, and e-mail. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive and knowledge applications: completion of the university writing foundation requirement.

WRT 340 – Contemporary Issues in Writing and Rhetoric (4)
Introduction to important past and present issues in the field of writing and rhetoric. Provides a theoretical and historical foundation for understanding current issues, changes, and challenges for the discipline. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.

WRT 342 - History of Rhetoric (4)
Examination of major Western rhetoricians and their cultural contexts. Considers the classical roots of modern rhetoric and the influences of rhetoric in other disciplines. Satisfies the university general education requirement in the knowledge application integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 350 - Community Service Writing (4)
Focus on the development of writing skills applicable in a community service context, including writing a variety of genres and applying academic research skills to community issues and problems. Community service work required through local agencies or student-initiated organizational contact.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 360 - Global Rhetorics (4)
Traces the contemporary and historical uses of rhetoric and written communication in non-Western cultures. Examines contemporary rhetorical contexts worldwide, including in education, professional writing, and political discourse. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 364 - Writing About Culture: Ethnography (4)
Development of analytic and collaborative writing skills in the context of ethnographic study. Emphasis on written analysis in a variety of forms including case study analysis and ethno-methodological investigation. Appropriate advanced writing experience for majors in communication, psychology, anthropology, sociology and political science. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 370 – Special Topics in Writing Studies (2 or 4)
Special topics in composition and rhetoric. May be repeated under different subtitles.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 380 – Special Topics in Professional Writing (4)
Advanced writing instruction in specific genres such as legal writing, medical writing, and grant writing. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for knowledge applications integration and writing intensive: completion of the university writing foundation requirement.

WRT 381 - Science Writing (4)
Writing to diverse audiences about scientific and technological subjects for a variety of persuasive contexts.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 382 - Business Writing (4)
Instruction in the theory and practice of written, visual, and digital rhetoric within business contexts. Satisfies the university general education requirement for a writing intensive course in general education and knowledge applications integration area.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 386 - Workshop in Creative Non-Fiction (4)
Creative writing workshop with emphasis on stories of real life, balancing artistry and accuracy. May include personal essay, autobiography or travel literature. Student may not receive credit for both ENG 386 and WRT 386. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): completion of the writing foundation requirement.

WRT 394 - Literacy, Technology, and Civic Engagement (4)
Exploration and application of technology in the discipline of writing and rhetoric. Examines the uneven shifts from oral to print to digital literacy, and how those shifts affect the production of knowledge, social relationships, and opportunities for civic engagement.
Prerequisite(s): completion of the university writing foundation requirement.

WRT 414 - Teaching College Writing (4)
Examination of and practice in instructional techniques and research in writing pedagogy, and such related issues as assessment and classroom workshops.
Prerequisite(s): junior standing and WRT 320 or permission of instructor.

WRT 460 - Writing Across the University: Language and Disciplinary Culture (4)
Interdisciplinary examination of diverse strategies for writing and research in the humanities, social sciences and natural sciences. Introduces theories of language as social and cultural action. Students build upon prior knowledge and increase their effectiveness as writers and researchers. Includes individual, collaborative, and field-based research projects. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): junior standing and completion of the university writing foundation requirement.

WRT 486 - Advanced Creative Nonfiction (4)
Advanced workshop in creative nonfiction with emphasis on writing for publication.
Prerequisite(s): WRT 386 or permission of instructor.

WRT 490 - Independent Study (1 to 4)
Special research projects in writing and/or teaching writing. Approved course of study and an authorization form, signed by a faculty member willing to supervise the study, must be submitted to the department the term prior to the term the independent study is taken. May be repeated for up to 8 credits. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive and knowledge applications: completion of the university writing foundation requirement.
Prerequisite(s): one 300-level writing/rhetoric course and permission of instructor.

WRT 491 – Capstone (4)
Capstone experience developed in consultation with the instructor based on student interests and professional goals. Projects can include both internal and external internship experiences, research assistantships, and thesis projects. May be repeated once in a different setting. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): Declared writing major, junior or senior standing, and permission of instructor.

WRT 497 - College Teaching Apprenticeship (2 or 4)
Assisting in teaching an undergraduate course in rhetoric. Includes discussions with the supervising faculty member on the principles, methods and problems of such teaching. May be taken for a total of 4 credits.
Prerequisite(s): senior standing. WRT 414 and two additional 300-400 level WRT courses. WRT 414 may be taken concurrently.

English as a Second Language Center (ESL)

The English as a Second Language Center offers classes in English as a Second Language (ESL) to help individuals improve English language skills (speaking, accent reduction, listening comprehension, reading, writing and vocabulary development). These courses are intended for university students, faculty and staff as well as international students, business personnel and other individuals. These classes can be taken as continuing education classes (CEU) as well as for credit. Students should contact the English as a Second Language Center for additional information.

These courses cannot be used to satisfy any portion of the university requirement in writing proficiency. No more than 16 credits in courses numbered 050-099 may count toward graduation requirements. Course numbers beginning with 04 are foundation courses, courses beginning with 05 are beginning level courses; 06, intermediate level; and 07, advanced level. Courses beginning with 08 have a business focus, and those beginning with 09 are for graduate students.

Other College of Arts and Sciences Academic Options

The minors, concentrations and programs offered in this section are interdisciplinary in nature and are attractive additions to many degree programs in the university. They are available to all students in the university. A student wishing to pursue any of these minors, concentrations and programs should consult with the coordinator listed with each program and should file a Concentration/ Minor Authorization Form where appropriate. As a general rule, no more than 8 credits of course work used to satisfy one major, minor or concentration may be applied toward another, but exceptions to this rule may be allowed with the written approval of the program coordinators.

Addiction Studies Concentration

The concentration in Addiction Studies provides students with the required knowledge and skills needed to pursue the Certified Addiction and Drug Counselor license for the State of Michigan and prepares students to work in the areas of substance abuse and addiction.

Concentration in Addiction Studies (28 credits)

Core classes

- PHL 103 - Introduction to Ethics (4)
- PSY 100 - Introduction to Psychology (4)
- SOC 300 - Alcohol, Drugs and Society (4)
- SW 364 - Substance Abuse Theory and Practice I (4)
- SW 365 - Substance Abuse Theory and Practice II (4)

Electives: choose two of the following

- SW 210 - Introduction to Social Work (4)
- SW 405 - Social Work Practice I (4) (for social work majors only)
- SOC 222 - Sociology of Mental Illness (4)
- AN 333 - Medical Anthropology (4)
- CRJ 100 - Introduction to Criminal Justice (4)
- CRJ 324 - Corrections and Rehabilitative Institutions (4)
- PHL 318 - Bioethics (4)
- PSY 345 - Health Psychology (4)

American Studies Concentration

Coordinator: *Jeffrey Insko*

Executive Committee: *Graham Cassano (Sociology), Todd A. Estes (History), Jeffrey Insko (English), Andrea Knutson (English), Kathleen Pfeiffer (English)*

Affiliated Faculty: *Daniel J. Clark (History), John Corso (Art History), David Dulio (Political Science), Joanne Lipson Freed (English), Diane Hartmus (Political Science), Baily McDaniel (English), Karen A.J. Miller (History), Roger Larocca (Political Science), Teri Towner (Political Science*

The American studies concentration provides both a broad understanding of the American experience and an introduction to the practice of focused interdisciplinary study. The concentration is taken in addition to a departmental major. By electing departmental courses with an American focus in two or three areas outside the major and framing the concentration with two interdisciplinary American studies courses, students may expect to gain a coherent sense of the national experience and appreciate the various contributions of different academic disciplines.

Although not a vocationally directed program, the American studies concentration should be of particular interest to students preparing for careers in law, government and journalism, and those planning graduate work in American studies or any of its contributing disciplines.
The concentration requirements are listed below. Students interested in pursuing this concentration should file a plan of study with the coordinator.

Required courses

- AMS 300 - Topics in American Culture (4)
- AMS 401 - Senior Project (4)
- One course in anthropology
- One American history course at the 300 level
- Three electives from the list of recommended departmental electives, with no more than two taken from any one department's offerings and at least one representing a field or fields outside the student's major

Recommended departmental electives

Art and art history

- AH 350 - American Art (4)
- AH 352 - African-American Art (4)
- AH 355 - Michigan Architecture (4)
- AH 362 - Art Since 1960 (4)

English

- ENG 112 - Literature of Ethnic America (4)
- ENG 224 - American Literature (4)
- ENG 317 - Early American Literature (4)
- ENG 318 - American Literature 1820-1865 (4)
- ENG 319 - American Literature 1865-1920 (4)
- ENG 320 - American Literature 1920-1950 (4)
- ENG 324 - Issues in American Literature (4)
- ENG 341 - Selected Ethnic Literature (4)
- ENG 342 - African American Literature (4)

History

- HST 114 - Introduction to American History Before 1877 (4)
- HST 115 - Introduction to American History Since 1877 (4)
- HST 292 - History of the African-American People (4)
- HST 301 - History of American Cities (4)
- HST 305 - History of American Mass Media (4)
- HST 306 - History of the North American Colonies (4)
- HST 308 - The American Revolution (4)
- HST 309 - The U.S. Early National Period, 1787-1815 (4)
- HST 310 - Jacksonian America (4)

- HST 311 - The Development of Political Practices in Early America (4)
- HST 312 - The Civil War and Reconstruction, 1850-1876 (4)
- HST 313 - American History, 1876-1900 (4)
- HST 314 - American History, 1900-1928 (4)
- HST 315 - American History, 1928-1945 (4)
- HST 319 - History of the American South (4)
- HST 322 - Women in Modern America (4)
- HST 323 - Topics in African American History (4)
- HST 361 - History of American Families (4)
- HST 362 - History of African-American Women (4)

Music

- MUS 105 - Foundations of Rock (4)
- MUS 107 - Exploring Jazz (4)

Political science

- PS 100 - Introduction to American Politics (4)
- PS 300 - American Political Culture (4)
- PS 302 - Congress and the Legislative Process (4)
- PS 305 - Local Government and Politics (4)
- PS 307 - State Politics (4)
- PS 312 - The Politics of Race and Ethnicity (4)
- PS 324 - Elections and Voting Behavior (4)
- PS 326 - Political Campaigns (4)
- PS 327 - Media and Politics (4)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 342 - The Judicial Process (4)
- PS 371 - American Political Thought (4)

Sociology/anthropology

- SOC 100 - Introduction to Sociology (4)
- SOC 205 - Current Social Problems (4)
- SOC 315 - Social Welfare Policies (4)
- SOC 331 - Racial and Ethnic Relations (4)
- SOC 373 - Social Control of Mass Media (4)
- AN 380 - Archaeology of North America (4)
- AN 381 - Peoples and First Nations of North America (4)

Note

Some 300- and 400-level topics courses offered by contributing departments may also be included in the concentration, with permission of the American studies coordinator.
Students majoring in anthropology or history should be aware that no more than 8 credits may be counted toward both the major and a concentration.

Course Offerings

The concentration offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

AMS 300 - Topics in American Culture (4)
An interdisciplinary approach to various aspects of American culture addressing both the theoretical basis for American Studies and practical application of interdisciplinary methodology. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the Western civilization knowledge exploration area.

AMS 401 - Senior Project (4)
Either an independent research project or an internship in American studies. Plans for this project must be developed with the concentration coordinator the semester before the student registers for this course.

Archaeology Concentration

Coordinator: *Suzanne M. Spencer Wood (Anthropology)*

Committee: *Leslie Cavell (Art History), Andrea Eis (Art History), Michael Pytlik (Religious Studies), Suzanne M. Spencer-Wood (Anthropology), Richard B. Stamps (emeritus Anthropology), Susan E. Wood (Art History)*

The concentration in archaeology prepares students for graduate study in archaeology. It is also helpful for students interested in an interdisciplinary approach to human cultural development viewed from historical, aesthetic and scientific perspectives. A minimum of 28 credits is required for this program, distributed as follows.

1. Required courses

- AH 100 - History of Western Art, Prehistory through Medieval (4)
- AN 101 - Human and Cultural Evolution (4)
- AN 222 - Archaeological Methods and Theory (4)

2. One of the following

- AH 307 - Buddhist Art (4)
- AH 308 - Native American Art (4)
- AH 309 - Pre-Columbian Art (4)
- AH 310 - Art of the Ancient Near East (4)
- AH 312 - Greek Art (4)
- AH 314 - Roman Art (4)
- AH 380 - Museum Studies in Art History (4)
- AN 282 - The Archaeology of Civilizations (4)
- AN 370 - Archaeology of Mesoamerica (4)
- AN 371 - Peoples and Cultures of Mexico and Central America (4)
- AN 380 - Archaeology of North America (4)
- AN 384 - Museum Studies in Archaeology (4)
- AN 385 - Historical Archaeology (4)
- AN 392 - Current Problems in Anthropology (4)

3. Eight credits in field methods

- AN 383 - Archaeological Field School (4 OR 8)

4. At least 4 elective credits

The following courses are recommended for those who wish to expand their background.

- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 326 - Gothic Art (4)
- HST 261 - Introduction to Latin American History to 1825 (4)
- HST 306 - History of the North American Colonies (4)
- HST 385 - Ancient and "Medieval" African Civilizations (4)
- HST 431 - Ancient Greece and Rome (4)
- PHY 106 - Earth Science/Physical Geography (4)

Note

Students are reminded that professional conservation work requires knowledge in botany and chemistry. New and special topics classes, where appropriate, may be petitioned to count toward graduation. Students wishing to enroll in the archaeology concentration should file a minor and concentration authorization form with the concentration coordinator.

Computer Science, Computing, and Information Technology Minors

Coordinator: *Nilesh Patel (Computer Science and Engineering)*

The School of Engineering and Computer Science offers three minors, computer science minor, computing minor, and information technology minor, to students with majors other than computer science, computer engineering, and information technology.

Computer science

The minor in computer science is suitable for students with a major in engineering, mathematics, physics, chemistry or biology, who may wish to emphasize numerical, scientific and engineering aspects of computing. At least 12 of these credits must be taken at Oakland University. A grade of 2.0 is required in each course for this minor. Students must earn a minimum of 20 credits, including the following courses:

- CSE 142 - Introduction to C Programming and Unix (4)
- CSE 230 - Object-Oriented Computing I (4)
- CSE 231 - Object-Oriented Computing II (4)
- And 8 credits minimum of CSE courses numbered 200 or above.

Minor in computing and minor in information technology

The minors in computing and information technology are suitable for students with a major in liberal arts, business, or health sciences who may wish to emphasize applied data processing aspects of computing and information technology. At least 12 of the minor credits must be earned at Oakland University. An average grade of at least 2.0 is required in courses counted toward this minor. Students must earn a minimum of 20 credits as follows for a minor in Computing: CSE 120, CSE 130, and 12 credits of 200-level CSE courses. At least 12 of the minor credits must be earned at Oakland University. An average grade of at least 2.0 is required in courses counted toward this minor. For an IT minor, students must earn a minimum of 20 credits in the following courses: CIT 120, CIT 122, CIT 130 or CIT 131, and any two courses from CIT 230, CIT 247, and CIT 252. At least 12 of these credits must be taken at Oakland University.

With a major in economics, a student may wish to take courses oriented toward application of computers in management data processing.

For specific requirements for each of these minors, see the computer science, computing or information technology minors page.

Environmental Studies Concentration

Coordinator*: Linda Schweitzer (Chemistry)*

The concentration in environmental studies introduces students to the newer interdisciplinary perspectives needed to address today's environmental problems. Short- and long-range implications of human activities are analyzed, with emphasis on the technical and scientific issues.
Requirements for the concentration are a minimum of 28 credits in a planned and approved program of advanced courses built on introductory work in biology, chemistry, mathematics and physics. Typically, the 28 credits would include:

Environmental Studies Concentration suggested coursework

Core course

- ENV 308 - Introduction to Environmental Studies (4)

Sixteen credits of coursework at the 300 level or above selected from at least three rubrics. Recommended courses include:

- AN 410 - Human Adaptation (4)
- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 311 - Botany (4)
- BIO 361 - Permaculture (4)
- BIO 373 - Field Botany (4)
- CHM 410 - Environmental Chemistry (3)
- CHM 412 - Atmospheric Chemistry (3)
- CHM 413 - Environmental Aquatic Chemistry (3)
- PS 350 - Public Administration (4)
- PS 353 - American Public Policy (4)
- PS 354 - Global Environmental Governance (4)
- AN 322 - The Food Quest (4)

Additional Information

At least 16 credits must be in non-duplicative coursework with another major.

A Concentration/Minor Authorization Form with an approved set of courses must be filed at least two semesters prior to graduation. Consult the program coordinator for details about course sequences and scheduling. See course descriptions for ENV course offerings.

French Studies Concentration

Coordinator: *Stacey Hahn (French)*

The concentration in French studies provides an interdisciplinary understanding of French culture for students not majoring in French. Courses in French language, literature, civilization, art history and history are required.

In addition to providing students with a well-rounded background in the area of French studies, this concentration is also useful to students planning graduate work in French history or art history.

The concentration offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.
The concentration requires completion of a minimum of 28 credits, including 8 credits in French language and 20 credits in courses conducted in English as follows:

1. Eight credits of French language taken at Oakland University

Students must achieve minimally at the 215 level. Students who place into FRH 215 will take FRH 215 and FRH 314; if they place higher than FRH 215, they will take FRH 314 plus 4 credits in a higher level course.

2. Eight credits from the following courses

- LIT 181 - European Literature I (4)
- LIT 182 - European Literature II (4)
- LIT 251 - Studies in Foreign Film (4)
- ML 390 - Advanced Study of Topics Related to Foreign Languages and Cultures (2 OR 4)
- LIT 375 - Topics in Foreign Literature (4) when available

The courses listed above are conducted in English.

3. Eight credits from the following history courses

- HST 329 - Europe in the Seventeenth Century (4)
- HST 348 - Europe in the Eighteenth Century (4)
- HST 349 - Early Modern France (4)

Other topic courses in history may be substituted with permission of the concentration coordinator.

4. Four credits in art and art history selected from

- AH 326 - Gothic Art (4)
- AH 360 - Nineteenth-Century Art (4)
- AH 361 - Modern Art 1900-1960 (4)

Other topic courses in art history may be substituted with permission of the concentration coordinator.

5. Corequisite course selected from the following

- HST 101 - Introduction to European History Before 1715 (4)
- HST 102 - Introduction to European History Since 1715 (4)

Either course satisfies the general education requirement in the western civilization knowledge exploration area.

Additional information

This concentration does not constitute a major. Students must elect a major from those offered by the university. Interested students should develop a program in consultation with the coordinator.

Gerontology Concentration

The gerontology concentration is a multidisciplinary approach designed to provide students with in-depth knowledge about the aging process and the skills needed to work with older adult as well as understand the psychological, social, economic and health/medical issues that older adults face. Students will be prepared for direct service roles with seniors and their caregivers in nursing homes, geriatric health and mental health centers, hospice, hospitals and long-term-care facilities, multipurpose senior centers, senior citizen social services, and retirement communities.

1. Required core courses

- SW 358 - Death and Dying (4)
- SOC 465 - Sociological Perspectives on Aging (4)

- PSY 323 - Adulthood and Aging (4) (SOC 202 substituted for published course prerequisite for students with a declared a concentration in gerontology)
- AN 333 - Medical Anthropology (4)
- SOC 328 - Sociology of Health and Medicine (4)

2. Two elective courses selected from

- SW 315 - Social Welfare Policies (4)
- PS 359 - Public Policy and Health Care (4)
- AN 305 - The Life Course in Anthropological Perspective (4)
- PHL 318 - Bioethics (4)
- CRJ 360 - Criminal Careers and Career Criminals (4)
- SW/SOC/PSY/AN/CRJ special topic course in aging (must be reviewed and approved by a faculty adviser)

Liberal Arts Minor in Science

The liberal arts minor in science requires at least 27 credits for the two-science minor, or 29 credits for the three-science minor, selected from courses in biological sciences, chemistry and physics.
Students who elect a single discipline minor in either biology, chemistry or physics are not eligible for the science minor, nor are students who are majoring in biochemistry, biology, chemistry, computer science, engineering, environmental science, industrial health and safety, medical physics, medical technology, nursing, physical therapy or physics.

Science Minors (Two and Three)

- Complete two of the following course sequences in biology, chemistry, or physics
- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- CHM 144 - General Chemistry I (4) and
- CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and
- CHM 148 - General Chemistry Laboratory II (1)
- PHY 101 - General Physics I (4) or
- PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or
- PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

2. Complete at least 8 additional credits from either science selected or split between the two sciences.

Three-science minor

Complete the following biology, chemistry and physics course sequences

- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1) PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)

- PHY 111 - General Physics Lab II (1)

Biology and chemistry courses numbered lower than BIO 111 and CHM 144, respectively, do not apply to the science minors, nor do CHM 201, CHM 300 and BIO 300

Pre-Law Studies

Oakland University does not offer a major or concentration in pre-law studies. Consequently, students planning to attend law school after graduation must select a major in addition to the pre-professional studies designation, pre-law studies. Students should choose a major in which they have both interest and aptitude; the particular major is less important for admission to law school than the overall success in courses chosen. Success is generally measured by the cumulative grade point average and the score on the Law School Admission Test (LSAT).

Rather than mastery of any particular subject matter, law schools require that incoming students possess certain basic skills. These skills include critical reasoning and the ability to write and speak in a coherent and precise manner. Students are advised to select rigorous course work aimed at developing strong reading, writing and reasoning skills; and to plan undergraduate course work with an eye toward long-term plans within the legal profession. Because there is no set of specific courses necessary for admission to, or success in, American law schools, there is no formal pre-law curriculum at Oakland University. Students are directed to consider courses in three categories as described below and to choose courses that they believe will help them to develop skills or acquire knowledge that may be beneficial during or after law school. None of these courses are required or necessarily recommended for all prelaw students.

1. Development of fundamental abilities of reasoning and written communication

Although most introductory courses in all of the liberal arts disciplines serve this purpose, particularly relevant courses are:

- LIN 207 - Meaning in Language (4) or
- PHL 102 - Introduction to Logic (4)
- PHL 103 - Introduction to Ethics (4)
- WRT 380 - Persuasive Writing: Various Themes (4)

2. Oral communication

- COM 201 - Public Speaking (4)
- COM 301 - Persuasion (4)
- COM 318 - Argumentation and Debate (4)
- THA 104 - Acting for Non-Theatre Majors (2)

3. Law in relationship to other disciplines

- ECN 378 - Economic Analysis of Law (3)
- ENV 461 - Environmental Law and Policies (3)
- JRN 403 - Media Law (4)
- MGT 350 - Legal Environment of Business (3)
- PHL 316 - Ethics in Business (4)
- PHL 318 - Bioethics (4)
- PHL 319 - Philosophy of Law (4)
- PS 340 - U.S. Constitutional Law (4)
- PS 341 - Civil Rights and Civil Liberties (4)
- PS 342 - The Judicial Process (4)
- PS 343 - Gender Discrimination and the Supreme Court (4)
- PS 347 - Law and Politics (4)
- SOC 320 - Law and Society (4) or AN 320 - Law and Society (4)
- SOC 329 - Criminal Law and the Courts (4) or CRJ 329 - Criminal Law and the Courts (4)

Additional information

Students are cautioned against overemphasizing law-related courses in their undergraduate training. Law schools virtually never give credit for these courses, either for placement or graduation, and are inclined to believe an education featuring these courses to be too narrow in scope. Undergraduate education is a distinct and vital part of one's professional training and should never be regarded simply as a way station before beginning one's "real" work. It must be emphasized that none of the courses listed here are required of, or restricted to, pre-law students.

Students interested in a career in law should view the pre-law website on the OU website (oakland.edu/prelaw) before meeting with an academic adviser to discuss any unanswered questions. Advising is available through either the College of Arts and Sciences Advising Office or Diane Hartmus in the Department of Political Science.

Pre-Medical Studies

Students who plan to attend medical school upon graduation and who entered the college in the pre-medical studies curriculum must select a major in addition to this pre-medical studies designation. Students planning a career in the medical professions (medicine, dentistry, optometry and veterinary medicine) will find that a major in biology, biochemistry, biomedical sciences, or chemistry, combined with the Concentration in Pre-Medical Studies, provides excellent preparation for admission to the various medical schools in Michigan and elsewhere.

Students should consult with any of the faculty listed with the pre-medical concentration, or with an adviser in the College of Arts and Sciences Advising Office for assistance in planning their programs.

Pre-Medical Studies: Medicine, Dentistry, Optometry and Veterinary Medicine Concentration

Professional adviser: *Carmen Gamlin*

Academic Advising: *Interested students should consult with the Pre-Medical Advising Office, the College of Arts and Sciences Advising Office or a Department of Biological Sciences faculty adviser for counseling and assistance in planning their academic programs.*

Committee: *Gennie Anderson (School of Health Sciences), Amy Banes-Berceli (Biological Sciences), Sharise Calhoun (Admissions), Ashley Cerku (Writing Center), Shannon Esselink (College of Arts and Sciences Advising), Christina Grabowski (School of Medicine), Sarah Hosch (Biological ciences), Anne Hitt (College of Arts and Sciences), Nessan Kerrigan (Chemistry), Kristin Landis-Piwowar (School of Health Sciences), Amanda Lynch (School of Health Sciences), Denise McConkey (Career Services), Sandra Powell (Honors College), Jonathan Reusch (Career Services), Brad Roth (Physics), Ann Selva (College of Arts and Sciences), Mohammad Siadat (Computer Science and Engineering), Michelle Southward (School of Health Sciences), Kristin Thompson (School of Health Sciences), Keith Williams (Psychology)*

The concentration in pre-medical studies is intended for students who wish to pursue careers in medicine, dentistry, optometry or veterinary medicine. The Bachelor of Science degree with a major in biology provides students with all the requirements for a concentration in pre-medical studies. Students in the Bachelor of Arts degree program will need to complete two semesters of organic chemistry and laboratory in addition to their other science requirements. Students are expected to complete a concentration consisting of the following:

1. At least 24-25 credits of biology

Includes some laboratories and the required biology sequence (BIO 111, BIO 113, BIO 116) and at least three of the following

Cell Biology

- BIO 309 - Biology of the Cell (4)
- BIO 310 - Biology of the Cell Laboratory (1)

Genetics

- BIO 341 - Genetics (4)
- BIO 342 - Genetics Laboratory (1)

Physiology

- BIO 207 - Human Physiology (4)
  or
- BIO 321 - Medical Physiology (4) and BIO 322 - Physiology Laboratory (1)

Biochemistry

- BIO 325 - Biochemistry I (4) or CHM 453 - Biochemistry I (3)
- BIO 326 - Biochemistry I Laboratory (1) or CHM 457 - Biochemistry Laboratory (3)
- BIO 425 - Biochemistry II (4) or CHM 454 - Biochemistry II (3)

Developmental biology

- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)

Microbiology

- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)

2. Chemistry requirements

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)

3. Physics requirements

- PHY 101 - General Physics I (4) or PHY 151 - Introductory Physics I (4)
- PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) or PHY 152 - Introductory Physics II (4)
- PHY 111 - General Physics Lab II (1)

4. Mathematics requirements

- MTH 141 - Precalculus (4) (or course competency as determined by the Department of Mathematics and Statistics)

Plus one of the following

- MTH 122 - Calculus for the Social Sciences (4)
- MTH 154 - Calculus I (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)
- STA 226 - Applied Probability and Statistics (4)
- STA 228 - Statistical Methods for Biology (4)

Note

Pre-optometry concentration students must take 12 credits of mathematics including one statistics course (STA 225, STA 226, or STA 228). Pre-medical concentration students are advised to take two courses in the behavioral/social sciences (PSY 100 and SOC 100 recommended) and one in ethics (PHL 103 or PHL 104 recommended).

Additional information

The concentration provides the minimum requirements for admission to various medical, osteopathic, dental, optometry and veterinary schools, and provides the necessary background for the science portion of the standardized aptitude tests: medical (MCAT), dental (DAT), optometry (OAT) and veterinary (VCAT or GRE). This concentration does not constitute a major. Students must elect a major from those offered by the university.

Religious Studies Program

Director: *Alan Epstein*

Sub-program Directors: *Michael Pytlik (Judaic Studies), Malik Balla (Islamic Studies), Charles Mabee (Christianity Studies)*

Religious Studies Independent Major

Working with the program director, students may construct a 40-credit course of study to major in Religious Studies. The Independent Major may build upon and extend beyond the Religious Studies Concentration, while incorporating the particular interests of each participating student. The Independent Major may not be pursued conjointly with any of the three minor fields of study listed below. The plan of study for each Independent Major must be submitted to the College of Arts and Sciences for final approval.

Religious Studies Concentration

This concentration offers a structured program of study that explores and examines the human religious experience through its core beliefs and defining practices. While a number of methods common to the liberal arts tradition are employed throughout the various courses offered, focus typically is interdisciplinary, delving into the cultural, literary, and historical dimensions of religious life and thought. This concentration may not be taken conjointly with one of the minors listed below. However, it may be taken conjointly as part of a modified major (24 credits) in philosophy or with a full major in any other department of the College of Arts and Sciences.

Working with the program director, students may construct a 40-credit course of study to major in Religious Studies Concentration, while incorporating the particular interests of each participating student. The Independent Major may not be pursued conjointly with any of the three minor fields of study listed below. The plan of study for each Independent Major must be submitted to the College of Arts and Sciences for final approval.

A minimum of 28 credits is required for the concentration in religious studies, distributed as follows:

1. One course selected from

- REL 100 - Introduction to Religion (4)
- REL 150 - World Religious Traditions (4)

2. Core studies - two courses selected from

- REL 201 - Basic Religious Writings (4)
- REL 303 - American Religious Experience (4)
- REL 351 - Religion in the Modern World (4)
- REL 355 - Science and Religion (4)

3. Field-related studies - four courses selected from at least three of the following five fields

Art

- AH 104 - Arts of Asia and the Islamic World (4)
- AH 310 - Art of the Ancient Near East (4)
- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 326 - Gothic Art (4)

History

- HST 303 - History of Religions in the U.S. (4)
- HST 325 - Medieval Europe (4)
- HST 327 - The Reformation (4)
- HST 357 - The Arab-Israeli Conflict (4)
- REL 300 - Special Topics in Religious Studies (4)

Literature

- REL 353 - The Bible as Literature (4)
  or
- ENG 305 - The Bible as Literature (4)
- ENG 312 - Classical Mythology (4)

Philosophy

- PHL 205 - Medieval Philosophy (4)
- REL 325 - Philosophy of Religion (4) or PHL 325 - Philosophy of Religion (4)
- REL 359 - Philosophies and Religions of Asia (4) or PHL 350 - Philosophies and Religions of Asia (4)

Social Science

- PSY 436 - Seminar in Individual Differences and Personality Psychology (4) (only when special topic is religion)
- REL 271 - Magic, Witchcraft and Religion (4) or AN 271 - Magic, Witchcraft and Religion (4)
- REL 305 - The Sociology of Religion (4) or SOC 305 - Sociology of Religion (4)

Religious Studies Minors

The need for increased understanding of religious influences in the modern world has perhaps never been more apparent than at the present time. Judaism, Islam and Christianity in particular - with their intertwined historical, theological, cultural and ethical components - are integrally connected to the most urgent global challenges of the contemporary world. The purpose of the minor in religious studies is to provide students with a coherent and nuanced framework for achieving greater insights into the scope and complexity of these issues.

- Islamic Studies Minor

- Judaic Studies Minor

- Christianity Studies Minor

Islamic Studies Minor

The liberal arts minor in Islamic studies requires a minimum of 20 credits as described below. At least 8 credits must be taken in religious studies courses at Oakland.

1. Required course selected from

- REL 100 - Introduction to Religion (4)
- REL 150 - World Religious Traditions (4)

2. Required course

- REL 101 - Introduction to Islam (4)

3. Required course selected from

- REL 321 - Islamic Ethics (4)
- REL 331 - Islam in the Modern World (4)
- REL 422 - Islam in America (4)
- Any REL 300 special topics course in Islamic studies (4)

4. One of the following field-related courses

- AH 104 - Arts of Asia and the Islamic World (4)
- HST 356 - The Modern Middle East (4)
- HST 357 - The Arab-Israeli Conflict (4)
- IS 270 - Perspectives on the Middle East (4)
- PHL 205 - Medieval Philosophy (4)

5. One of the following applications

- ARB 114 - Introduction to Arabic Language and Culture I (4) (or higher numbered Arabic language course)
- REL 450 - Religious Community Project Internship (4) (structured by the Islamic studies program director upon request)
- REL 490 - Directed Readings in the Religious Studies (4) (in Islamic studies; Islamic studies program director approval required)
- Approved study abroad course in a Middle Eastern country

Note

Special topics courses offered in other areas (anthropology, art history, English, history, philosophy, political science and sociology) may be applied towards the minor when the topic is on an aspect of religious studies appropriate to the minor.

Students using this catalog to meet Islamic studies minor requirements may also use any course subsequently approved as satisfying requirements in one of the electives categories (requirements 1,3,4, and 5) and published in a later catalog.

Judaic Studies Minor

The liberal arts minor in Judaic studies requires a minimum of 20 credits as described below. At least 8 credits must be taken in religious studies courses at Oakland.

1. Required course selected from

- REL 100 - Introduction to Religion (4)

- REL 150 - World Religious Traditions (4)

2. Required course

- REL 102 - Introduction to Judaism (4)

3. Two core studies courses selected from

- PHL 205 - Medieval Philosophy (4)
- REL 307 - Jewish History (4)
- REL 317 - The Book of Genesis (4)
- REL 318 - Written Traditions of Judaism (4)
- REL 319 - Concepts of God and Man in Judaism (4)
- REL 353 - The Bible as Literature (4) or ENG 305 - The Bible as Literature (4)
- REL 420 - The Jewish Experience in American Life (4)
- REL 421 - The Holocaust (4)
- Any REL 300 special topics course in Judaic studies (4)

4. One of the following applications

- Hebrew language course
- REL 450 - Religious Community Project Internship (4)
- REL 490 - Directed Readings in the Religious Studies (4) (in Judaic studies; Judaic studies program director approval required)
- Approved study abroad course in Israel

Note

Special topics courses offered in other areas (anthropology, art history, English, history, philosophy, political science and sociology) may be applied towards the minor when the topic is on an aspect of religious studies appropriate to the minor.

Students using this catalog to meet Judaic studies minor requirements may also use any course subsequently approved as satisfying requirements in one of the elective categories (requirements 1, 3, and 4) and published in a later catalog.

Christianity Studies Minor

The liberal arts minor in Christianity studies requires a minimum of 20 credits as described below. At least eight credits must be taken in religious studies courses at Oakland.

1. Required course selected from

- REL 100 - Introduction to Religion (4)
- REL 150 - World Religious Traditions (4)

2. Required course

- REL 103 - Introduction to Christianity (4)

3. Two core courses selected from

- AH 322 - Early Medieval, Byzantine, and Romanesque Art (4)
- AH 326 - Gothic Art (4)
- ENG 305 - The Bible as Literature (4) or REL 353 - The Bible as Literature (4)
- HST 326 - The Italian Renaissance (4)
- HST 327 - The Reformation (4)
- PHL 205 - Medieval Philosophy (4)

- •REL 323 - Christian Ethics (4)
- •REL 300 - Special Topics in Religious Studies (4) when relevant to Christian studies
- •REL 349 - Early Christian Spirituality (4)

4. One of the following applications

- •REL 450 - Religious Community Project Internship (4)
- •REL 490 - Directed Readings in the Religious Studies (4) (in Christianity studies; requires Christianity studies program director approval)

Note

Special topics courses offered in other areas (English, history, philosophy, political science, and sociology) may be applied towards the minor when the topic is about an aspect of religious studies appropriate to the minor.

Students using this catalog to meet Christianity studies minor requirements may also use any course subsequently approved as satisfying requirements in one of the elective categories (requirements 1, 3, and 4) and published in a later catalog.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

REL 100 - Introduction to Religion (4)
Critical, comparative study of the human religious experience, as well as an examination of various methodological approaches employed by academic disciplines in the study of religion.

REL 101 - Introduction to Islam (4)
Pre-Islamic Arabia, Muhammad and early Islamic history; the Qur'an and basic beliefs, practices and law; the Islamic Caliphate; Islam in the modern world and Muslims in America; women in Islam and other contemporary issues. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

REL 102 - Introduction to Judaism (4)
Religious beliefs, practices and philosophies embedded within the major historical experiences (Biblical and Diasporic) of Jewish people including main institutional branches of Judaism, central characteristics of Jewish culture, and their relationship with non-Jewish groups and societies. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

REL 103 - Introduction to Christianity (4)
Key ideas, major concepts, and peculiar language of the Christian religious experience. Focus on history of Christianity, creeds and doctrines of various denominations, Christianity's cultural influences, and Christian ethical systems. Satisfies the university general education requirement in the global perspective knowledge exploration area.

REL 150 - World Religious Traditions (4)
Examines the core teachings and practices of the world's major religious traditions, including Judaism, Christianity, Islam, Hinduism, Buddhism, and Chinese religions. Emphasis is on terminology developed within each tradition, identification of human problems that each attempts to solve, and the insights and problematic issues that arise from these attempts. Satisfies the university general education requirement in the global perspective knowledge exploration area.

REL 201 - Basic Religious Writings (4)
Explores the various roles played by core texts within both Western and Eastern religious traditions. Basic texts from these traditions are analyzed and compared, revealing the essential approaches to religious life contained in each.

REL 271 - Magic, Witchcraft and Religion (4)
Identical with AN 271.
Prerequisite(s): AN 102.

REL 300 - Special Topics in Religious Studies (4)
Topics in history, literature, culture and philosophy of different religious traditions. May be repeated for additional credit under different subtitle.

REL 303 - American Religious Experience (4)
Study of a variety of religious traditions (e.g., Buddhist, Catholic, Hindu, Islamic, Native American, Protestant) as these are understood and lived by followers within the modern pluralistic society of North America. Also focuses on secularity, "NRM's" (New Religious Movements), and the emergence of American-born spiritual communities of faith.

REL 305 - The Sociology of Religion (4)
Identical with SOC 305.
Prerequisite(s): SOC 100 or 205.

REL 307 - Jewish History (4)
Survey of Jewish history from its foundation to more modern periods, including such topics as the Jewish Patriarchs, Jewish kingdoms, Jews in the Roman Empire, Jews in the Medieval Period, and Jewish experiences in Europe and the United States.

REL 317 - The Book of Genesis (4)
Examination of the major themes in the Book of Genesis, including creation, relationship between people and God, and human nature. Course will incorporate archaeology, rabbinic and Christian commentary, and literary analysis

REL 318 - Written Traditions of Judaism (4)
Examination of Jewish sacred texts and their development in Jewish history. Texts include the Hebrew Bible, Talmuds, early mystical works, devotional texts from medieval Europe, and the Kabbalah. Texts are in English translation. A significant emphasis is placed on reading and the meaning of these texts.

REL 319 - Concepts of God and Man in Judaism (4)
Examination of how ideas of God and humans' relationship to God are presented in Jewish religious texts and how they have evolved over time. Important issues include the nature of God, free will, sin, repentance, and the question of evil.
Prerequisite(s): REL 100 or 102 recommended.

REL 321 - Islamic Ethics (4)
Major principles and theories of Islamic ethics. Application of these ideas to issues of deforestation, global warming, sustainability, women's rights, abortion and cloning. Comparisons with other philosophical and religious theories.

REL 323 - Christian Ethics (4)
Study of the dialogue between philosophical ethics and the Christian tradition. Ethical models of Christian tradition from late Jewish moral theory through the Greeks, Romans, and into the present. Christian perspectives on contemporary moral problems and social issues.

REL 325 - Philosophy of Religion (4)
Identical with (PHL 325 or PHL 3150)
Prerequisite(s): one course in philosophy or religious studies or permission of instructor.

REL 331 - Islam in the Modern World (4)
Exploration of political, social, cultural, and religious developments in a diverse array of Muslim societies in the contemporary world. Examination of interaction between Western notions of modernity and Islam. Analysis of Western influence on Muslim societies and Muslim responses to the West. Topical issues include women's rights, democracy, and the rise of radical groups.

REL 349 - Early Christian Spirituality (4)
Social, historical and textual study of how Christianity as a new religion developed a unique spirituality enabling followers to approach their God using insights from Paul the Apostle, the Gospels, St. Augustine, and others.

REL 351 - Religion in the Modern World (4)
Focuses on key issues of religious life in the modern world. Examples of topics include the role of women in religious leadership, the relation of science and religion, religious fundamentalism, and religiously motivated acts of terrorism. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the social science or the global perspective knowledge exploration area, not both.

REL 353 - The Bible as Literature (4)
Identical with ENG 305. Satisfies the university general education requirement in the literature knowledge exploration area.
Prerequisite(s): WRT 160 with a grade of 2.0 or higher and junior standing.

REL 355 - Science and Religion (4)
Examines the relationship between religion and modern science from an historical and contemporary perspective. Scientific descriptions of reality are compared and contrasted with contemporary expressions of religious belief. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the natural science and technology knowledge exploration area.

REL 359 - Philosophies and Religions of Asia (4)
Identical with PHL 350.

REL 390 - Directed Rdg Religion (4)
Directed Rdg Religion

REL 420 - The Jewish Experience in American Life (4)
History of Jews as an American minority group, a dissenting non-Christian religious group, an immigrant and ethnic group, and a cultural group. Emphasis on themes of assimilation and conflict, as well as contributions to American society.

REL 421 - The Holocaust (4)
Examines events and contributing factors culminating in the Holocaust. Specific topics include history of anti-Semitism in Europe, rise of Nazism in Germany, Nazi Jewish policies, Jewish life under Nazism, design and execution of the death camps, world response, and the meaning of the Holocaust.

REL 422 - Islam in America (4)
Examination of the history, development, and challenges facing the Muslim community in the United States. Emphasis on the diversity of this community and its role in the greater Detroit area.

REL 450 - Religious Community Project Internship (4)
Field placement in an approved religious community project. Field notes, regular consultation with the program director, and an analytical paper of the experience are part of the requirements.
Prerequisite(s): minor or concentration in religious studies and permission of program director.

REL 490 - Directed Readings in the Religious Studies (4)
Individual study of topic(s) not covered in available courses. May be repeated for additional credit.
Prerequisite(s): REL 100, REL 201 and permission of concentration coordinator.

- ARB 114 - Introduction to Arabic Language and Culture I (4) (or higher numbered Arabic language course)
- REL 450 - Religious Community Project Internship (4) (structured by the Islamic studies program director upon request)
- REL 490 - Directed Readings in the Religious Studies (4) (in Islamic studies; requires Islamic studies program director approval)
- Approved study abroad course in a Middle Eastern country

Urban Studies Concentration

Committee: *De Witt S. Dykes (History), Oded Izraeli (Economics)*

The urban studies concentration is designed to provide a comprehensive interdisciplinary understanding of modern urban civilization and to develop an appreciation of some of the problems and policy issues confronting contemporary American urban communities. It is also designed to introduce some of the technical skills that are a prerequisite to the successful pursuit of career opportunities in a variety of urban-oriented public and private service or administrative organizations.

The concentration provides a carefully selected group of required core courses drawn from several departments, allows a relatively broad choice of electives and provides an interdisciplinary seminar designed to help integrate the knowledge and skills acquired in the program.

Students wishing to pursue the concentration in urban studies must submit an advising plan to the concentration adviser and make application to the concentration coordinator to be admitted to the program. One course in statistics and/or methodology offered by a social science department or a statistics course offered by the Department of Mathematical Sciences is a prerequisite to the program. To earn the urban studies concentration, students must complete a minimum of 28 credits, distributed as follows:

1. Core - three of the following four courses

- ECN 309 - State and Local Public Finance (3)
- HST 301 - History of American Cities (4)
- PS 305 - Local Government and Politics (4)
- SOC 345 - Urban Sociology (4)

2. Electives - four of the following courses

None of the courses may overlap with courses in the student's major and no more than two courses may be taken in a single department.

- AH 363 - Modern Architecture and Urban Design (4)
- HRD 364 - Career Development (4)
- HST 302 - American Labor History (4)
- PS 307 - State Politics (4)
- PS 350 - Public Administration (4)
- PS 353 - American Public Policy (4)
- SOC 315 - Social Welfare Policies (4)
- SOC 331 - Racial and Ethnic Relations (4)

3. Internship

Although an urban internship or field experience is not required as part of the concentration, it is strongly suggested that students complete such a course in their major department or another program in the university.

Geography Course Offerings

Courses offered under the geography rubric are available only to students fulfilling requirements for the Elementary Education Teaching Minor in Social Studies. Students in other programs may register for these courses under the home department rubric as indicated below.

Course Offerings

GEO 106 - Earth Science/Physical Geography (4)
Identical with PHY 106. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

GEO 200 - Global Human Systems (4)
Identical with AN 200 and IS 200. Satisfies the university general education requirement in the global perspective knowledge exploration area.

GEO 350 - World Regional Geography (4)
Identical with AN 350 and IS 350.
Prerequisite(s): AN 200 or IS 200 or GEO 200 Or IS 200.

School of Business Administration

427 Elliott Hall (248) 370-2957
Fax: (248) 370-4974
School Website: sba.oakland.edu

Dean: *Michael A. Mazzeo*

Associate Dean: *Nivedita Mukherji*

Office of the Dean: *Roberta Badgley, budget manager; Michael Silverstein, director of development*

Department chairs: *Mohinder Parkash, accounting and finance; Vijayan Sugumaran, decision and information sciences;*
Anandi P. Sahu, economics; Karen Markel, management and marketing

Distinguished professor emeritus: *Karl D. Gregory*

Professors emeriti: *Elefterios Botsas, Daniel N. Braunstein, David Doane, Ronald Horwitz, Sid Mittra, John Tower*

Professors: *Lizabeth A. Barclay, Joseph H. Callaghan, Addington Coppin, Mohammad Dadashzadeh, Gadis J. Dillon, Sherman R. Folland, John W. Henke, Oded Izraeli, John Kim, Thomas W. Lauer, Paul Licker, J. Austin Murphy, Kevin J. Murphy, Ravi Parameswaran, Mohinder Parkash, Anandi P. Sahu, Howard Schwartz, Jonathan Silberman, Mark Simon, Miron Stano, Vijayan Sugumaran, Mohan Tanniru, Kenneth M. York*

Associate professors: *Henry Aigbedo, Seong-Yeon Cho, Xiaodong Deng, Eugene B. Fliedner, Mark W. Isken, Joy Ruihua Jiang, Karl Majeske, Karen S. Markel, Kieran Mathieson, Cynthia Miree-Coppin, Nivedita Mukherji, Robert Nehmer, Ram Orzach, Sandra H. Pelfrey, R. Mohan Pisharodi, Hong Qian, Joseph Schiele, James Serocki, Rajeev Singhal, Kasaundra Tomlin, Janell Townsend, Ronald L. Tracy, T.J. Wharton, Ellen Zhu, Xie Zhu*

Assistant professors: *Venugopal Balijepally, Ranadeb Chaudhuri, Tianxu Chen, Mihaela Dimitrova, Liang Fu, Jae Kang, Yazan Roumani, Steven Stanton, Jennifer Thor, Yin Yu, Wonjoo Yun, Sha Zhao*

Special instructors: *Lori Dorko, Donna Free, Frederick Hoffman, Joseph Pia, Amy Rutledge, Kim Serota*

Graduate Program Adviser: *Paul Trumbull*

Professional and Community Education: *Eugene Fliedner, PMP Director*

Undergraduate Program Advisers: *Bani Bordoloi, academic adviser*, *Meaghan Cole, academic adviser, Debbie Lengyel, director of advising services; Adam McChesney, senior academic adviser; Deb Wheeler, academic adviser*

ACHIEVE Program: *Sherri Kerby*, *education coordinator; Michelle Serafino, internship coordinator*

Board of Visitors

The Board of Visitors provides a direct link between the business community and the School of Business Administration. The Board is composed of outstanding alumni and corporate and professional leaders. Board members assist the dean with supporting its mission in the external community as well as provide consultation on goals and objectives.

The Board members are:
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Mission

The mission of the School of Business Administration is to advance knowledge and enhance students' abilities to manage in a global business environment. The mission is achieved through a synergistic combination of teaching, scholarship and professional service, with emphasis on the linkage of theory and practice, and the application and management of technology. To achieve these ends, the SBA promotes collaborative relationships among students, faculty, administrators and employers.

General Information

The School of Business Administration (SBA) undergraduate programs enable students to combine the intensive study of a functional area of business (i.e., accounting, actuarial science, finance, human resources management, management information systems, marketing or operations management) or business economics with a broad background in management. Alternatively, students can focus on economics, the fundamental discipline behind business processes. In these programs, a strong foundation in liberal arts is combined with a rigorous education in written and oral communications and in problem definition, analysis and resolution. This combination produces graduates who can think analytically, communicate effectively and work cooperatively with others of similar or diverse backgrounds in both domestic and international environments. Graduates of these programs are prepared to handle the increasingly complex and changing problems faced by managers in profit-oriented enterprises and not for-profit organizations, both public and private.
The programs include:

1. Bachelor of Science with majors in accounting, business economics, economics, finance, general management, human resources management, management information systems, and marketing and operations management;
2. Bachelor of Arts with a major in economics (offered in conjunction with the College of Arts and Sciences (see the Department of Economics section in the Arts and Sciences portion of the catalog for a description of this program);
3. Bachelor of Science with a major in actuarial science (offered in conjunction with the College of Arts and Sciences (see the Department of Economics and the Department of Mathematics and Statistics section in the Arts and Sciences portion of the catalog for a description of this program);
4. Minors in accounting, applied technology in business (ATIB), business, economics, entrepreneurship, finance, human resources management, international management, management information systems, marketing, operations management, and quantitative methods.

High school students who intend to pursue a major offered by the SBA should consult the *Admissions* section of the catalog for specific preparation requirements. Students transferring from other institutions, both

international and domestic, may be requested to provide documentation of the content and scope of the courses they have taken at their previous institutions.

The SBA offers a Master of Business Administration (MBA) degree for students in any major, including business and management. The MBA is a professional program in business designed to prepare students for careers involving problem identification, problem solving, decision making and leadership in any type of organization. MBA students may elect concentrations in accounting, business economics, entrepreneurship, finance, human resources management, international business, management information systems, marketing, operations management, or supply chain 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. Students interested in pursuing this degree should contact the Office of Graduate Business Programs, 238 Elliott Hall, (248) 370-3287 for more information.

The SBA offers a Master of Accounting degree that prepares graduates for a variety of professional accounting positions in public accounting, corporations and other organizations. It provides appropriate technical accounting course work and results in the 150 credits required to become a Certified Public Accountant. Interested students should see the section on the Requirements for the accounting major for more information and contact the Office of Graduate Business Programs, 238 Elliott Hall, (248) 370-3287 for detailed information on admissibility into the program.

The SBA offers a Master of Science in Information Technology Management (MSITM) degree. The goal of the program is to provide a strong technical and managerial background to those who are interested in using information technology for competitive advantage. It is intended to provide business professionals with the knowledge they need to manage information technology effectively in support of their decision-making. It is also intended to provide information systems professionals with knowledge of the latest technologies and their use in application development. Students interested in pursuing this degree should contact the Office of Graduate Business Programs, 238 Elliott Hall, (248) 370-3287 for more information.

The SBA offers the Executive MBA (EMBA) and is designed for professionals who are already engaged in successful careers and want to build a strong business foundation while enhancing their leadership and management skills. The program offers the schedule flexibility required for a full-time executive. Two program concentrations are available: Health Care Management or Information Systems Leadership. Students interested in pursuing this degree should contact the Office of Graduate Business Program, 238 Elliott Hall, (248) 370-3287 for more information.

Oakland University undergraduates working on majors other than those in business administration may complete their prerequisites and some core courses for the MBA program while completing their undergraduate degree. For detailed information contact the Office of Graduate Business Programs.

The SBA is accredited, on both the undergraduate and the graduate levels, by AACSB International (The Association to Advance Collegiate Schools of Business), the premier business school accreditation agency. In addition, the accounting program has achieved the separate AACSB accounting accreditation.

For more information on the SBA undergraduate programs, the MBA, the Master of Accounting program, the Master of Science in Information Technology Management program, accreditation, SBA courses and SBA faculty, visit the School's web site at: sba.oakland.edu.

Degree Requirements

The curriculum described shall be followed by students entering the School of Business Administration beginning in the fall 2015 semester. Students enrolled prior to fall 2015 may choose to satisfy either the degree requirements listed in this catalog or those in the catalog of the academic year in which they were initially admitted to pre-business or undecided business in the SBA (or any catalog during the interim), provided that catalog is not more than six years old at the time of graduation. Students who transfer to the SBA after admission to the university or who are readmitted to the university are required to follow the requirements of the catalog in effect at the time they transfer or are readmitted. As described below, students may choose to meet the general education requirements of a different catalog.

To ensure they have met all requirements, students should seek a final program audit from one of the school's academic advisers no later than the semester before the semester in which they plan to graduate. The responsibility for meeting graduation requirements rests with the student.

The business administration programs consist of the following parts: general education (including U.S. diversity and writing foundations), the pre-core, the core, the major and free electives (if needed to reach 128 credits). Students in these programs must satisfy the specific requirements of each of these parts and must earn a minimum of 128 credits. (*See Bachelor of Science with a major in economics for the specific requirements of that degree program*.)

Each student must:

1. complete at least 128 credits, including any free electives needed to reach this total;
2. complete the university general education requirement as detailed in the general education section below, also under *Undergraduate degree requirements*;
3. complete the pre-core requirements as listed below and be admitted to major standing in business administration as detailed in the Admission to major standing in business administration section below;
4. complete the core program and the requirements of one of the business majors in the SBA with a minimum grade of a 2.0 in each of the pre-core, core and major courses. Once admitted to the business program as a pre-business or undecided business student or major, a student must complete all of the remaining business core, major and business minor coursework for the degree at Oakland University;
5. complete at least 32 credits at the 300 level or above;
6. complete at least 32 credits at Oakland University, of which at least 31 credits must be in courses offered by the School of Business Administration, excluding ECN 150 , ECN 200 or ECN 202, ECN 201, ECN 210 and QMM 240, QMM 241 and QMM 250. Of these 31 credits, at least 12 credits must be in the student's major;
7. take the last eight credits needed to complete the baccalaureate requirements at Oakland University;
8. earn a cumulative grade point average of at least 2.00 in courses taken at Oakland University and in courses taken in the SBA.

Academic Advising, Mentoring and Major Standing

Students who have questions about schedule planning, degree requirements, admission to the SBA, major standing, transfer credit, petitions of exception or graduation audits should meet with one of the school's advisers. Academic advising can be found in 232 Elliott Hall, (248) 370-3285. To avoid delays, students are encouraged to seek advising prior to early registration
periods. Once major standing has been achieved (see *Admission to major standing in Business Administration*), students are encouraged to consult with faculty within their major area to discuss schedule planning within the major, career tracking and other issues relevant to making academic decisions that will enhance opportunities for success within a chosen career field.

The school offers advising and mentoring to students who plan to pursue one of its degree programs. Faculty members are available to provide support, curricular guidance and career information as students make the transition from high school or a previous college to Oakland University's business administration or economics programs. Incoming freshmen and transfer students are encouraged to seek information from these experienced faculty members.

The ACHIEVE Program

The goal of the ACHIEVE Program is to help students in the School of Business (SBA) make the transition from high school graduates to "day one professional workers" in their chosen field of study. The SBA accomplishes this goal by integrating professional and career development into its undergraduate curriculum. Business students participate in mandatory prescribed activities that enhance their career and professional skills. This professional development series is structured so that students learn about different business careers and the leadership and professional skills they will need to land a job and succeed in their chosen profession.

Requirements for Business Administration Majors

General education requirement

Students in the School of Business Administration must satisfy the university general education requirement (see *Undergraduate degree requirements*). Students may use one catalog for the general education requirements and another for the specific degree requirements. Students enrolled prior to fall 2015 may choose to satisfy either the general education requirements listed in this catalog or those in the catalog of the academic year in which they were initially admitted to Oakland University (or any catalog during the interim), provided that catalog is not more than six years old at the time of graduation. The general education requirements may be summarized as one course from the approved lists in each of the following categories:

- Writing: This category includes:
- WRT 160 and its prerequisites;
- an intensive writing course in other general education requirements. This category is normally covered for
- business majors by WRT 382 - Business Writing or ECN 326; and
- an intensive writing course in the major. This category is normally covered for business majors by MGT 435 -
- Management Strategies and Policies, STA 402, or ECN 405.
- Formal Reasoning: This category is normally covered for SBA majors by the required MTH 121 or MTH 122 or MTH 154.
- Knowledge Explorations: The social science requirement in this category is normally covered for SBA majors by (ECN 200 or ECN 202) or ECN 201 or ECN 210. The global perspective requirement in this category is normally covered for SBA majors by ECN 202 or ECN 326. The rest of this category is covered by one course each in the arts, foreign language and culture, literature, natural science and technology, and Western civilization.
- Knowledge Application: This category is normally covered for business majors by QMM 240, QMM 241 or QMM 250.
- Capstone course: This category is normally covered for business majors by MGT 435, ECN 450, or ACS 450.
- U.S. diversity: Select a course that meets one of the other knowledge exploration general education requirements and has the required diversity section.

- SBA students are encouraged to increase their background in ethics by taking PHL 103 - Introduction to Ethics, to satisfy the university's Western civilization general education knowledge exploration requirement.

Pre-core requirements

As preparation for the various majors of the business administration program, students must complete the following courses in writing, speech communication, mathematics, business modeling with computers, economics, accounting and statistics with minimum grade of 2.0 in each course. Students who have taken ECN200 under a previous catalog will be able to count this course toward the ECN 202 requirement.

The required writing and pre-core courses are:

WRT 160 - Composition II (or complete the writing requirement in another manner)	0-4
COM 201 - Public Speaking	4
or COM 202 - Group Dynamics and Communication	4
MTH 121 - Linear Programming Elementary Functions	4
and *MTH 122 - Calculus for the Social Sciences	4
or MTH 141 - Precalculus	4
and **MTH 154 - Calculus I	4
MIS 100 - Business Problem Solving with Information Technology	3
ECN 202 - Principles of Global Macroeconomics or ECN 200 - Principles of Macroeconomics and ECN 201 - Principles of Microeconomics **or** ECN 210 - Principles of Economics - a 6 credit course that covers the material of both (ECN 200 or ECN 202) and ECN 201	6-8
ACC 200 - Introductory Financial Accounting	4
ACC 210 - Managerial and Cost Accounting I	4
QMM 240 - Statistical Methods for Business I or (***STA 225 or STA 226) **or** QMM 250 - Statistical Methods for Business - a 6 credit course that covers the material of both (QMM 240 and QMM 241)	3-6
TOTAL	**35-41**

In addition, students admitted to the SBA as pre-business or undecided business majors are required to meet the 0 credit ACHIEVE courses required for major standing (SBC 199, SBC 299).

**If a student places into and completes MTH 122 with the required minimum grade, MTH 121 or MTH 141 is not required (students who meet this criterion under a previous catalog will be able to waive MTH 121 or MTH 141).*

**If a student receives transfer credit for MTH 122, MTH 121 or MTH 141 is not required (students who meet this criterion under a previous catalog will be able to waive MTH 121 or MTH 141).*

***If a student places into and completes MTH 154 with the required minimum grade, MTH 141 is not required (students who meet this criterion under a previous catalog will be able to waive MTH 121 or MTH 141). If a student does not place into MTH 154 calculus, MTH 121 and MTH 122 or MTH 141 and MTH 154 or MTH 141 and MTH 122 must be completed with the required minimum grade (students who meet this criterion under a previous catalog will be able to waive MTH 121 or MTH 141).*

****Students who have taken STA 225 or STA 226 under a previous catalog may also use those courses as a substitute for QMM 240.*

The freshman and sophomore years of study for students pursuing the business administration program will be devoted to the writing, general education and pre-core course requirements. Special emphasis should be given during the freshman year to the completion of the university writing requirement and steady progress in the mathematics sequence. Once sophomore status has been achieved (28 credits), students will begin work on the accounting and statistics requirements. The student's specific mathematics and statistics sequence will depend on the student's math placement results but can include MTH 061, MTH 062, MTH 121, MTH 122, QMM 240 and QMM 241(or QMM 250). Steady progress in the mathematics and statistics sequence is defined as one course in the sequence in each fall and winter semester until the sequence is completed.

Admission to Major Standing in Business Administration

Students are strongly recommended to apply for major standing during the semester they are completing their pre-core classes and have the minimum grade point average. Major Standing is required to complete MGT 435, may be required for some 300 and 400 level courses within a student's major, and in order to be awarded an undergraduate business degree. Applications are filed with the Undergraduate Advising Office, 232 Elliott Hall.

Students who do not apply for major standing during the semester that they are completing the pre-core requirements run a high risk of registration and major completion difficulties. To be eligible to take 300 and 400 level business courses for which major standing is a pre-requisite, business majors must be admitted to major standing in the School of Business Administration. Admission to major standing is selective. The minimum requirements for consideration are:

1. Student's admissibility to and retention in the university;
2. Completion of the writing requirement;
3. A minimum grade point average of 2.6 in all courses taken at Oakland University (with a minimum of six credits completed at Oakland University);
4. A minimum grade of 2.0 in each of the following pre-core courses or their equivalents: ACC 200, ACC 210; COM 201 or COM 202; ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210))*; MIS 100; (MTH 061, MTH 062 if required by the math placement); MTH 121, MTH 122; QMM 240 (or QMM 250);
   **Students cannot receive credit for both ECN 210 and (ECN 200 or ECN 202) or ECN 201.*
5. Submission of an "Application for Major Standing" for the desired major;
6. Completion of SBC 199 and SBC 299 for all SBA students admitted to OU after 2008-2009 for FTIAC students and after 2009-2010 for transfer students. Students who entered under a previous catalog should follow these requirements.

A student is classified as pre-business upon admission to Oakland University if they have a cumulative GPA of 2.80 or above and four years of college preparatory math. Transfer students are classified as pre-business if they have a cumulative transfer GPA of 2.80 or above and math through intermediate algebra. All other students are classified as undecided business and these students cannot register for most 300- and 400-level courses until they obtain pre-business or major standing status within the SBA. Undecided business students may register for all SBA pre-core courses and general education requirements.

To maintain pre-business status before obtaining major standing within the SBA, an OU student must maintain a cumulative GPA set by the SBA. Any pre-business student (SBA students not yet having major standing) who does not maintain an OU cumulative GPA (as set by the SBA) at the end of any term is classified as an undecided business student. During the 2015-2016 academic year, the GPA set by the SBA for pre-business status is 2.6.

Core Program

Each of the business major programs requires the completion of a common core of courses introducing students to the functional areas of business. Most of the 300-400 level business courses in the core program (i.e., MKT 302, ORG 330, MIS 300, POM 343, FIN 322, ORG 331, and MGT 350) require a student to be coded as pre-business or be in major standing (see Admission to Major Standing in Business Administration for requirements to be coded as pre-business). All core courses require a minimum grade of 2.0.

	Credits
WRT 382 - Business Writing (or ENG 382 or ENG 380)*	4
MKT 302 - Marketing	4
ORG 330 - Introduction to Organizational Behavior	3
MIS 300 - Management Information Systems	3
ECN 303 - Managerial Economics	3
POM 343 - Operations Management	4
FIN 322 - Managerial Finance I	4
ORG 331 - Introduction to the Management of Human Resources	3
MGT 350 - Legal Environment of Business	3
**MGT 435 - Management Strategies and Policies	4
**SBC 399 - ACHIEVE III	0
TOTAL	**35**

*Students who have taken these courses under a previous catalog will be able to use these courses to satisfy WRT 382.

**MGT 435 requires major standing and only business majors may take these courses.

Major Programs

Students take 15-24 additional credits specified in their major area. The junior and senior years will be devoted to the successful completion of the requirements of the core and major. Majors from which business administration students may choose are detailed below. Double majors are permitted in all areas except general management. No more than four credits of independent study (490) courses may be used to meet the major elective requirement. Courses numbered 380 and 480 may be repeated for up to eight credits provided the topics are different. Students will be required to complete ACC 399 or ECN 399 or FIN 399 or MGT 399 or MIS 399 or MKT 399 or ORG 399 or POM 399 as part of their major program.

Free Electives

Students complete their program by taking a course or courses of their choice to yield a total of 128 credits. While the general education portion of the degree program provides students with the range of knowledge that is the essence of an educated person, the free elective portion of the program allows students to make choices concerning course work that responds to their individual interests and/or needs.

Policies and Procedures

High school admissions

For entering freshmen, admission to pre-business is restricted to those presenting a minimum 2.80 cumulative grade point average in high school academic courses and at least four years of college preparatory mathematics courses.

Transfer policy

Transfer students must have at least a 2.80 cumulative grade point average and mathematics through intermediate algebra (equal to MTH 062) for admission to pre-business. Evaluation of transfer courses is a two-part process. General education and composition courses are evaluated by the Academic Records Office. Business courses, including any required computer science courses, are evaluated by the School of Business Administration. Credit for specific SBA courses is authorized for courses of similar content taken prior to attending Oakland University at other colleges and universities accredited by a regional accrediting agency. Students transferring from other institutions may be required to submit course descriptions and related materials to aid in these transfer evaluations. Once admitted to the business program as a pre-business or undecided business student or a business major, business majors must complete all the remaining core, major and business minor course work for the degree at Oakland University unless the course work is part of an approved study abroad/away program. Students who have transfer courses that are more than seven years old may be required to re-take the course at Oakland University. See *Transfer student information* for additional information.

Internal transfer

Oakland University students seeking admission to pre-business from other programs will be considered for admission after they have completed MTH 121 (or an equivalent) with a grade of 2.0 or better. An overall GPA of 2.60 or better in at least 12 credits at Oakland University is also required. Students who do not meet the criteria for pre-business will be considered for admission to undecided business if their cumulative GPA is a 2.0 or better.

Second majors

Students who return to the SBA to complete a second major after graduating with a business major from OU must complete all courses remaining for that second major at Oakland University. Additionally, students must fulfill the stated major requirements in effect at the time they are admitted as a second major.

Second degrees

Students who currently hold a bachelor's degree from a regionally accredited institution, including Oakland University, may pursue a second undergraduate degree at Oakland University in the School of Business Administration with the exclusion of those applicants holding a bachelor's of science degree in Business Administration from Oakland University with a major in General Management.

Second degree students from regionally accredited institutions are exempt from Oakland University's general education requirements, including the undergraduate requirement for the writing foundations course at the level of WRT 160. Credits applied toward the first degree will be accepted as transfer credit toward the second degree. At least 32 additional credits must be taken at Oakland University, of which 31 credits must be in courses offered by the School of Business Administration, excluding ECN 150, 200, 201, 202, 210, and QMM 240, 241, and 250. Of these 31 credits, at least 12 credits must be in the student's major. Second degree students are exempt from ACHIEVE-SBC 199, SBC 299 and SBC 399, however, they are encouraged to take these non-credit courses as part of their program.

Students considering admission for a second degree are advised and highly encouraged to investigate opportunities in the Graduate Business Programs such as a Master of Business Administration, Master of Accounting programs or Master of Science in Information Technology Management prior to meeting with an Undergraduate Adviser.

Repeats

Repeats of a course: a student can repeat, either at Oakland University or at another approved institution, any business pre-core or core course in which a 2.0 grade or better is required. The student is limited to the university maximum of three attempts for any one course requirement, including attempts at Oakland and for the equivalent course at another institution, and must have a petition of exception approved for a fourth attempt. Students must get prior approval from an SBA Adviser in order to repeat a course at another institution. If a student repeats a course at another institution, the original grade attained in the course at OU will be included in the student's GPA. See "Repeating courses" in the *Academic Policies and Procedures* section of the catalog for more specific information on university rules governing course repeats.

Unsatisfactory performance

Unsatisfactory performance includes the following items:

Grades: Numerical grades less than 2.0 and U grades are considered substandard. A course in which a grade below 2.0 has been earned may not be subsequently passed by competency examination or independent study.

Mathematics and Statistics Sequence: The SBA major is expected to take a math or statistics course each fall and winter semester until the student has completed either QMM 241 or QMM 250 with a minimum grade of 2.0. Failure to take a course in the mathematics and statistics sequence (MTH 061, MTH 062, MTH 121, MTH 122, QMM 240 and QMM 241 or QMM 250 depending on the student's math placement) each fall and winter term or its equivalent will be considered to be unsatisfactory performance and the student may be removed from the SBA business program.

Mandatory Advising: Undecided business students whose cumulative GPA is between a 2.0 and 2.59 may be required to meet with an academic adviser in the SBA following the semester when their cumulative GPA dropped below the required 2.6 and every semester thereafter until their GPA returns to at least a 2.6 cumulative. In some cases, a registration hold will be placed on a student's account until they complete the requirements of Mandatory Advising.

Grade appeals

If a student wishes to dispute a final grade in a course, he or she must submit a written appeal to the appropriate department chair no later than the following deadlines: 1. If the course was taken in winter or summer terms, the written grade appeal must be submitted no later than the end of the subsequent fall semester. 2. If the course was taken in the fall semester, the written grade appeal must be submitted no later than the end of the subsequent winter semester.

Prerequisites

In planning their schedules, students should ensure that they satisfy prerequisite and co-requisite conditions for courses. The prerequisites for SBA programs and courses will be strictly enforced. Students approved to fulfill prerequisites at another institution will need to solicit registration assistance from Undergraduate Advising Office, 232 Elliott Hall, 248-370-3285. Students who have registered for courses for which they do not meet the prerequisites and other conditions may be administratively dropped from courses or have their registration cancelled.

Independent study

The purpose of an Independent Study is to provide *highly motivated students* the opportunity to construct a *unique educational experience* that goes beyond the courses contained in the existing course catalog. The basic rules for Independent Study are:

1. Student must have at least a 3.00 cumulative overall GPA.
2. Students must have achieved major standing.
3. Independent Study cannot be used in lieu of a required course.
4. It is the student's responsibility to develop an appropriate area of Independent Study and to arrange for a full-time faculty member to direct the Independent Study.

5. Part-time SBA faculty members cannot supervise an Independent Study.
6. The Independent Study contract must be completed by the student and signed by the faculty-adviser, department chair and the Director of Advising Services prior to registering for the course.
7. It is expected that the student will perform an amount of work equivalent to a regular course with the same amount of credits and that a substantive tangible output (exam, written paper, computer program, etc.) will be developed.
8. Interdisciplinary cooperation is permitted and a non-SBA faculty member may co-supervise the Independent Study. An SBA faculty member must be a supervisor and is responsible for assigning a final grade.
9. The student must be made aware of the basis for grading prior to registering for an Independent Study.
10. Undergraduate students cannot register for Independent Study if they already have or are taking more than eight cumulative credits of Independent Study unless an exception is agreed to by the SBA's Committee on Exceptions.

Assurance of learning

To assist in the continuous improvement of its programs, the SBA engages in two different Assurance of Learning processes. The first type of Assurance of Learning is within each business major. This process involves evaluating student performance in a variety of discipline specific objectives. The evaluation is carried out each semester in different courses required for the major.

In evaluating the entire undergraduate business program, student assignments in core or pre-core courses are scored on whether each student exceeds, meets, or does not meet the SBA's expectations for a specific learning objective. This process occurs in different core and pre-core courses every semester. Although this score is not used in calculating a student's course grade, the assignment also receives a traditional grade from the instructor just as does other course assignments. The Learning Goals for the undergraduate business program and their corresponding Learning Objectives are:

Learning Goal 1: Critical Thinking (ECN 303, FIN 322, POM 343)

Learning Objectives:

1. Identify the assumptions needed to analyze the assigned case or problem.
2. Identify the relevant and irrelevant data or information presented in the case or problem.
3. Identify the different questions or approaches that could be considered in order to answer the problem or case.
4. Derive or describe the solution to the problem or case.

Learning Goal 2: Global Business Environment (ECN 202, MKT 302)

Learning Objectives:

1. Show awareness of a global issue relevant to business or the economy.
2. Demonstrate understanding of factors and/or forces associated with this issue.
3. Explain the impact of this issue on the business environment.

Learning Goal 3: Information Technology and Management (MIS 100, MIS 300)

IT Learning Objectives:

1. Create a professional document using a word processor.
2. Conduct research using the Internet.
3. Create an effective presentation using a presentation package.
4. Collect and analyze data using a spreadsheet.
5. Use a database software.

IM Learning Objectives:

1. Identify alignment/misalignment of identified information (IS strategy) with organizational goals/objectives (organizational strategy).
2. Identify types of systems appropriate to the decision-making level within the organization.
3. Organize information properly for efficient storage and retrieval.
4. Identify the issues involved in creating information for decision making from data sources.
5. Identify the use of IS to support decision making in functional areas.

Learning Goal 4: Communications Skills (MGT 350, MGT 435, QMM 241)
Written Communication Learning Objectives:

1. Be able to articulate main concept(s) in writing.
2. Be able to write logically.
3. Be able to write clearly and concisely.
4. Be able to write using correct grammar and spelling.

Oral Communication Learning Objectives:

1. Be able to articulate main concept(s) orally.
2. Be able to speak coherently.
3. Be able to keep audience's attention.
4. Be able to use time effectively.

Learning Goal 5: Real World Business Applications (MGT 435, ORG 331)
Learning Objectives:

1. Identify the underlying issue(s) for the given business situation or case.
2. Identify the appropriate theory (ies) or theoretical construct(s) that apply to the given business situation or case.
3. Apply theory (ies) or theoretical construct(s) to the given business situation or case to generate alternatives.

Learning Goal 6: Ethics (MGT 350)
Learning Objectives:

1. Recognize basic concepts related to business ethics.
2. Apply an ethical decision making process to an ethical dilemma presented to them.

Learning Goal 7: Foundation in Business Disciplines (MGT 435)
Learning Objective:

1. Understand key concepts in business disciplines of accounting, economics, finance, management, marketing and operations management.

Policy regarding non-business majors

All students who are not business majors in the School of Business Administration, whether they have applied for a minor or not, are limited to no more than 25 percent of their total degree credits required for their degree in business courses (usually 32 credits). The maximum of 25 percent of total degree credits includes courses taken at Oakland University and all previous colleges. Economics (ECN) courses, QMM 240, QMM 241, QMM 250, QMM 440 and QMM 452are excluded from this requirement. Therefore, students from majors outside the business administration program, including economics majors in either the School of Business Administration or the College of Arts and Sciences, may not earn more than 25 percent of their required total degree credits in transfer plus Oakland credits in ACC, FIN, MGT, MIS, MKT, ORG, POM or QMM courses (excluding those noted above). Economics majors and students from other majors at Oakland University may take 100-and-200 level SBA courses as long as they have all the prerequisite courses with the required grades. Economics majors and students

from non- business majors at Oakland University must have an approved university concentration/minor authorization form to take 300-and-400 level SBA courses which have the pre-requisite of major standing.

Additional Information

Career experience

The Career Experience unit of Career Services assists students in gaining non-credit paid work experience related to their major that will enhance their classroom learning, increase their motivation to graduate, augment their career knowledge, and improve their job seeking skills and employability. Opportunities are offered in the following programs: career related jobs, internships (corporate and grant-funded), and cooperative education. Students in the School of Business Administration who want to combine relevant work experience with their education are encouraged to participate in such programs. Students are placed in jobs in business, non-profit or governmental organizations similar to those held by recent Oakland University graduates. All students are encouraged to explore these programs and other job/career-related information on the Career Services web site at oakland.edu/career services or by contacting the Career Services office at 154 North Foundation Hall, 248-370-3250.

Honors, awards and scholarships

School honors are awarded by the SBA to graduating students who have completed a minimum of 32 credits in SBA courses with a minimum GPA of 3.33 in courses offered in the school. In addition to being eligible for honors available to all Oakland University undergraduates, students in the School of Business Administration are eligible for the following:

American Marketing Award: The Detroit chapter of the American Marketing Association awards certificates of achievement for scholarship and service to marketing majors.

Beta Gamma Sigma: Beta Gamma Sigma is the national honor society for business schools accredited by AACSB International (The Association to Advance Collegiate Schools of Business). Membership in Beta Gamma Sigma is one of the highest scholastic honors that a student in business administration can achieve. It is based on outstanding scholastic achievement as measured by overall grade point average. Invitation for membership to Beta Gamma Sigma is extended to graduating seniors in the top 10 percent of their class and juniors in the top five percent of their class.

Financial Executives Institute Award: This award is presented annually to the undergraduate accounting or finance student who has demonstrated the highest standard of academic excellence. The student is honored at a meeting of the Detroit chapter of the Financial Executives Institute. Selection is made by the accounting and finance faculty of the SBA.

Omicron Delta Epsilon: Omicron Delta Epsilon is a national honor society for promising economics students. Selection for membership is made by the economics faculty.

School of Business Administration Awards / Scholarships

Accounting and Finance Advisory Board Accounting Scholarship: This $1,000 scholarship (applied to OU tuition) is awarded annually to an undergraduate accounting major who exhibits a strong interest in pursuing a career in accounting and demonstrates leadership. The scholarship winner is selected by the AFAB scholarship committee.

Accounting and Finance Advisory Board Finance Scholarship: This $1,000 scholarship (applied to OU tuition) is awarded annually to an undergraduate finance major who exhibits a strong interest in pursuing a career in finance and demonstrates leadership. The scholarship winner is selected by the AFAB scholarship committee.

Benedettini-Pearson Endowed Scholarship: This scholarship is awarded to a freshman undergraduate student who has selected business or economics as their preferred program of study on their admissions application, has graduated from a public high school located in Detroit, Flint, Oak Park or Pontiac, and has demonstrated financial need.

Brian Meer Scholarship: This $1,000 scholarship award is open to an undergraduate student who is enrolled at least part-time (6 credit hours) in the School of Business Administration. Additionally, the student must have 56 credit hours, a minimum of 24 which have been earned at OU. Candidates must have a 2.8 or higher GPA and submit a one-page essay describing how receipt of an award will assist them, either directly or indirectly, in successfully completing their studies and obtaining the undergraduate degree.

Bud Kulezsa Family Endowed Scholarship: This $1,000 scholarship (applied to OU tuition) is awarded to an undergraduate accounting major who has at least a 3.0 overall GPA, and has at least a 3.3 GPA in accounting courses beyond ACC 210 taken at OU. An entrepreneurial and/or international business interest will enhance the application.

Byunghak Cho Memorial Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting or finance major who is in financial need and has exhibited an outstanding combination of academic performance, extracuricular activities and clear career goals of becoming a professional with business ethics.

Clayton McKervey International Scholarship: This $1,500 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who has had international exposure and will be enrolled in the MAcc Program. The student must also exhibit an outstanding combination of academic performance and extra-curricular activities.

Deloitte Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting or finance major who has exhibited an outstanding combination of academic performance and extracurricular activities.

Derderian Kann Seyferth & Salucci Scholarship: This $1,000 scholarship (applied to OU tuition) is open to self-supporting undergraduate accounting majors with a minimum GPA of 3.0.

Diane and Michael Grieves Endowed Diversity Scholarship: This scholarship ($3,000) will be awarded to an economically disadvantaged full-time undergraduate student who will have junior status (56 credits with a minimum of 24 credits taken at Oakland).The student must be pursuing a degree in Management Information Systems and maintain at least a 2.60 cumulative GPA at Oakland University, be a US citizen or legal permanent resident, and have applied for Financial Aid in the distribution year.

Dicron Tafralian Memorial Scholarship: This $3,000 scholarship (applied to OU tuition) is awarded annually, on a merit basis, to a continuing accounting major at Oakland University who has also applied to the MAcc Program. Selection is made by the accounting faculty of the SBA. This scholarship was established in memory of Dicron Tafralian, who served in administrative capacities at Oakland University for many years.

Doeren Mayhew Scholarship: This $1,000 scholarship (applied to OU tuition) is awarded annually to an undergraduate accounting major who has exhibited an outstanding combination of academic performance and extracurricular activities. Candidates must have at least a 3.2 overall GPA in courses taken at Oakland University, and have an interest in pursuing a career in public accounting.

Dutkiewicz Family Accounting and Finance Scholarship: This $2,500 scholarship (applied to OU tuition) is given to an undergraduate accounting or finance major who has exhibited an outstanding combination of academic performance and extra-curricular activities, with financial need.

Ernst & Young Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting major who has exhibited an outstanding combination of academic performance and extracurricular activities.

Francis C. Amos SBA Alumni Scholarship: In honor of Michigan State representative Frances Amos, active alumna and ardent supporter of Oakland University, this $5,000 scholarship was established to reward outstanding business students who exemplify her commitment to community service and the pursuit of personal academic excellence. This scholarship is open to junior and senior business students who have achieved major standing. See application for other criteria.

Gadis and Susan Dillon Accounting Student Leadership Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting major entering the OU MAcc Program who has demonstrated outstanding leadership and support of the OU Accounting Student Professional Organizations (these organizations are OASIS, NABA and Beta Alpha Psi). Grade point average may be considered, but is clearly subordinate to leadership activities.

Gale Blank Copple Endowed Economics Scholarship: This $2,500 scholarship is given annually in recognition of outstanding achievements in economics and overall academic accomplishments to a member of Oakland University's Women's Economic Society. Applicants must have 56 credit hours and must maintain full-time status during the next academic year. They must have completed at least four courses in economics with a GPA of at least 3.3 and must have an overall GPA of at least 3.0.

Gerald M. and Tracy C. Nanni Accounting and Finance Scholarship: This $1,000 scholarship (applied to OU tuition) is awarded to an undergraduate accounting or finance major or a Master of Accounting (MAcc) student who has exhibited a combination of outstanding academic performance and demonstrated financial need.

Independent Bank Scholarship: This $2,500 scholarship is awarded to a student who is seeking any of the three economics degree programs offered at OU. The student must be in major standing and should have completed 56 credit hours by the end of winter 2015, with a minimum of 30 credit hours remaining to complete a B.S. or B.A. degree in Economics. The student must be enrolled for a minimum of 12 credit hours during the fall and winter terms, and must be from Oakland, Macomb or Lapeer County. The student must also be eligible for the PELL Grant.

Islamovic-Skomski Scholarship: This $2,000 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who will be enrolled in the MAcc Program that has also exhibited outstanding academic achievement.

Marvin L. Katke Scholarship: This scholarship awards a student who has at least 56 credit hours, a minimum of 24 which have been earned at OU. Candidates must have at least a 3.0 GPA and demonstrate outstanding academic achievement and extra-curricular and/or civic involvement. This scholarship normally awards $2,500.

Meritor, Inc. Operatons Management Scholarship: This $2,500 scholarship is given to an Operations Management student. The student must be in major standing, have an overall 3.0 GPA. The student must also complete a one-page essay in which the student expresses how he or she plans to utliize his or her Operations Management Major in his or her future career.

Meritor, Inc. Society of Operations Management (SOM) Scholarship: This $3,500 scholarship is given to an Operations Management student. The student must be in major standing, have an overall 3.0 GPA, and have an active role in the Society of Operations Management (SOM) School of Business Administration student organization. The student must also complete a one-page essay in which the student expresses how the SOM is helping him or her to reach his or her career potential.

Mukesh Bhargava Scholarship: This $1,500 scholarship was created in 2013 to honor Mukesh Bharghava, a distinguished marketing faculty member at Oakland for 18 years. This is a one-year scholarship for students pursuing a degree in marketing, with demonstrated financial need.

Pia Tax Scholarship: This $1,750 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who is going to be enrolled in the MAcc program and who has exhibited an outstanding academic performance in tax.

Plante & Moran Golden Rule Scholarship: This $1,250 scholarship (applied to OU tuition) is given to an undergraduate accounting major who has exhibited outstanding academic performance and has an interest in public accounting.

Plante & Moran Golden Rule Scholarship - MAcc: This $1,250 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who is going to be enrolled in the MAcc program, and who has exhibited outstanding academic performance and has an interest in public accounting.

PriceWaterhouseCoopers Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting major who has exhibited an outstanding combination of academic performance and extra-curricular activities, and is interested in pursuing a career in public accounting.

PriceWaterhouseCoopers Schoolarship - MAcc: This $1,500 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who will be enrolled in the MAcc Program that has exhibited an outstanding combination of academic performance and extra-curricular activities.

Professor Ronald M. Horwitz Outstanding Finance Student Scholarship Award: This $1,000 award is given to an undergraduate finance major with the best combination of academics and activities, as determined by the Department of Accounting and Finance faculty. Significantly greater emphasis is placed on academic performance in finance courses. Serving in a leadership role in student activities will also be an important factor.

Robert Uptegraff, Sr. Scholarship: This $1,500 scholarship (applied to OU tuition) is given to a Master of Accounting (MAcc) student or an undergraduate accounting major who will be enrolled in the MAcc Program that has exhibited an outstanding combination of academic performance and extra-curricular activities.

Sarwan Singh Grewal Scholarship: This $1,500 scholarship (applied to OU tuition) is given to an undergraduate accounting or finance major who has exhibited an outstanding combination of academic performance and extracurricular activities.

SBA Tower Scholarship: This $2,000 scholarship is awarded to an undergraduate student pursuing a degree in the School of Business Administration, with a minimum GPA of 3.0 and extra-curricular and/or civic involvement.

Sid and Bani Mittra Economics Merit Scholarship: This $2,000 scholarship is given to a student pursuing a degree in economics in the School of Business Administration and who has exhibited an outstanding combination of academic performance and extracurricular activities. The student must be enrolled in at least one economics class at OU and must also be in major standing.

Stephan and Rita Sharf Scholarship: This scholarship is awarded annually to a student who is enrolled full-time in the School of Business Administration. Additionally, the student must have at least 56 credit hours, a minimum of 12 which have been earned at OU. Selection is based upon academic achievement and demonstrated financial need. This scholarship normally awards $2,000.

TMBKS Family Scholarship Award - **DIS**: The $1,500 award is available to students with an overall GPA of 3.0, a 3.46 GPA after pre-core and core requirements, and major standing in DIS. Student extracurricular and community service activities will be considered.

Requirements for the major in Accounting

Major adviser: *Lori Dorko*

The accounting faculty has adopted the statement of mission as defined in the School of Business Administration Mission Statement. Within the context of that mission statement, the accounting curriculum is intended to prepare graduates for careers in public accounting, industry and government.

To fulfill requirements for the accounting major, students must be admitted to major standing in accounting, complete the core program and earn a minimum of 32 credits in the courses specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in each prerequisite course before an Oakland University student may begin work in a subsequent accounting course.

Required pre-core courses -- 8 credits

- ACC 200 - Introductory Financial Accounting (4)
- ACC 210 - Managerial and Cost Accounting I (4)

Required major courses -- 12 credits

- ACC 310 - Intermediate Financial Accounting I (3)
- ACC 311 - Intermediate Financial Accounting II (3)
- ACC 318 - Accounting Information Systems: Planning and Analysis (3)
- ACC 320 - Managerial and Cost Accounting II (3)
- ACC 399 - Achieve III - Accounting (0)
- ACC 490 - Independent Study (1 TO 3)

Electives — choose 12 credits

- ACC 401 - Advanced Financial Accounting (3)
- ACC 411 - Auditing (3)
- ACC 412 - Government and Not-for-Profit Accounting (3)
- ACC 415 - Federal Income Taxation (3)
- ACC 480 - Special Topics in Accounting (3)
- ACC 505 - Business Law for Accountants (3)
- ACC 521 - Federal Income Tax II (3)
- ACC 526 - Account Information Systems: Audit & Control (3)
- ACC 533 - Account Information Systems: Analysis & Design (3)

32 total credits

Note:

The 500-level accounting courses are open to undergraduate accounting majors during their senior year with the permission of the Faculty Coordinator for the Masters of Accounting Program. Students who have taken ACC 505, ACC 521, ACC 526 or ACC 533 under a previous catalog will be able to count the course as an elective.

Because of specific examination requirements, students who plan to take a professional accounting examination (CPA, CMA or CIA) should discuss their options with an accounting faculty member before enrolling in 400-level accounting courses. The Master of Accounting degree program provides for 30 credits of accounting and related course-work. Undergraduate students will be able to apply to the program during the fourth year of their undergraduate program. With the completion of 158 credits of undergraduate and graduate course-work, students will graduate with a Bachelor of Science with a major in accounting and a Master of Accounting. Students are encouraged to seek advising from the Faculty Coordinator of the Master of Accounting Program if they are considering this option.

Students planning to sit for the CPA Examination should be aware that the State of Michigan (and most other states) requires a minimum of 150 credit hours to become a Certified Public Accountant. The requirement will be satisfied by completing the Master of Accounting degree program. While the MAcc program is recommended,

additional undergraduate courses may also satisfy the 150 credit hour requirement. The MAcc Faculty Coordinator can help you evaluate different options for your situation.

Requirements for the Bachelor of Science degree with a major in Economics

Major adviser: *Anandi P. Sahu*

The Bachelor of Science with a Major in Economics is offered through the School of Business Administration, but is different from Bachelor of Science in Business Administration with a Major in Business Economics. The latter is a business degree, and the former is not. By not requiring the business core, the Major in Economics provides students greater flexibility. This major teaches students the concepts and tools of economic analysis, while providing them with the breadth and flexibility of a broad general education and courses in other areas of interest to the student. Students learn how economic analysis can be applied to major problems facing individuals, firms, the nation and the world today. Majoring in economics prepares students for the workplace of the future, which will require workers who are flexible, adaptable to change, and who can propose practical solutions to solve problems quickly.

Besides preparing students for a career in the private or public sector, an education in economics is excellent preparation for law school, graduate school in public administration or economics, or an MBA degree. Economics is a flexible choice for students seeking a rigorous, well-respected and relevant major without specializing in a narrowly defined area.

Beyond the Bachelor of Science with a major in business economics (a business degree, described previously), the Department of Economics offers four economics programs: a Bachelor of Arts in Economics (offered through the College of Arts and Sciences), a Bachelor of Science in Economics (offered through the School of Business Administration), a Bachelor of Science with a Major in Actuarial Science (offered through the College of Arts and Sciences), and a minor in economics. The Bachelor of Arts degree allows a student to pursue a liberal arts education while providing a background that business considers appropriate for most entry-level management positions (see the Department of Economics section in the College of Arts and Sciences portion of the catalog). The Bachelor of Science degree has additional accounting and finance requirements. It also provides educational and career flexibility not offered by a degree in business. The Bachelor of Science with a Major in Actuarial Science blends mathematics, economics, statistics, and finance, and is offered jointly with the Department of Mathematics and Statistics. The minor in economics is useful for liberal arts majors with an interest in business and for business majors who want to demonstrate their solid grounding in economics, the foundation of a business degree.

Students who are interested in attending graduate school in economics should see the department chairperson or an economics faculty mentor at an early stage of their undergraduate program. Professional advisers in the SBA (for B.A. and B.S. degrees) and the College of Arts and Sciences (for B.A. degree) or the chairperson of the Department of Economics offer routine student advising.

To earn the Bachelor of Science degree with a major in economics, students must complete a minimum of 128 credits as follows:

English composition -- 4-8 credits

- WRT 160 - Composition II (4) (or complete the writing requirement in another manner as detailed in the general education section of Undergraduate degree requirements)
- WRT 382 - Business Writing (4) (or ENG 382 or ENG 380)

General education requirement -- 28 credits

See the university General Education section of the Undergraduate degree requirements for details on the writing requirement, U.S. diversity and other general education requirements. Students on a previous catalog may use economics courses to satisfy the social science general education requirement.

Cognate courses -- 29 credits

- MTH 121 - Linear Programming Elementary Functions (4) (or MTH 141)
- MTH 122 - Calculus for the Social Sciences (4) (or MTH 154)
- If a student places into and completes MTH 122 with the required minimum grade, MTH 121 or MTH 141 is not required.
- If a student receives transfer credit for, MTH 121 or MTH 141 is not required.
- **If a student places into and completes MTH 154 with the required minimum grade, MTH 121 or MTH 141 is not required.**
- MIS 100 - Business Problem Solving with Information Technology (3) or
- CSE 120 - Introduction to Computing and Programming using Excel (4) (or CIT 120)
- ACC 200 - Introductory Financial Accounting (4)
- ACC 210 - Managerial and Cost Accounting I (4)
- QMM 240 - Statistical Methods for Business I (3) or (STA 225 or STA 226) and
- QMM 241 - Statistical Methods for Business II (3)
- or
- QMM 250 - Statistical Methods for Business (6) (a 6 credit course that covers the material of both QMM 241 and QMM 240)
- FIN 322 - Managerial Finance I (4)

Required courses -- 18-20 credits

- ECN 201 - Principles of Microeconomics (4)
  and
- ECN 200 - Principles of Macroeconomics (4)
  or
- ECN 202 - Principles of Global Macroeconomics (4)
  or
- ECN 210 - Principles of Economics (6) (a 6-credit course that covers the material of both ECN 201 and ECN 202.
- ECN 302 - Intermediate Macroeconomics (3)
- ECN 303 - Managerial Economics (3)
- ECN 304 - Consumer and Welfare Economics (3)
- ECN 405 - Econometrics (3)

Electives -- 15-16 credits

- Choose five economics electives at the 300-level or above, one of which must be at the 400-level.
- Students taking ECN 150 or ECN 160 before ECN 201 or ECN 202 (or ECN 200) and who subsequently become economics majors, should talk to the department chairperson. FIN 418 or QMM 452 can be substituted for a 300-level elective.
- No more than three credits in ECN 380 or ECN 490 may be counted as economic electives.

General electives -- 23-34 credits

128 total credits

In addition, each student seeking a Bachelor of Science with a major in economics must:

1. Complete at least 32 credits at Oakland University, of which at least 16 credits must be offered by the SBA. Of these 16 credits, at least 12 must be in the student's major;
2. Completion of the following courses, or their equivalents, with a grade of 2.0 or better in each course: MTH 121, MTH 122; MIS 100 (or CSE 130); ECN 210 or both ECN 201 and ECN 202 (or ECN 200); and QMM 240 (or QMM 250);

3. Complete ECN 302, ECN 303, and ECN 304 with a minimum grade of 2.0 in each course;
4. Complete at least 32 credits at the 300 level or above;
5. Take the last eight credits needed to complete the baccalaureate requirements at Oakland University;
6. Earn a cumulative grade point average of at least 2.00 in courses taken at Oakland University and in courses taken in the School of Business Administration.

Requirements for the major in Business Economics

Major adviser: *Anandi P. Sahu*

The Bachelor of Science in Business Administration with a major in business economics combines studies of the basic functional areas of business with the analytical and quantitative methods of economics and therefore provides students with the ability to apply general concepts of economics to help solve managerial problems. This major prepares students for careers in business management or public administration, or for graduate study in business, economics or law.

To fulfill the requirements for the business economics major, students must be admitted to major standing in business economics, complete the core program and complete a minimum of 30 credits, as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in each prerequisite for an economics course before a business economics major, or any Oakland University student, may begin work in that economics course.

Requirements for major standing

Admission to major standing in economics requires:

1. Completion of the writing requirement.
2. Completion of the following courses, or their equivalents, with a grade of 2.0 or better in each course: ACC 200, ACC 210, COM 201 (or COM 202) MTH 121-MTH 122, ECN 210 (or ECN 200 and ECN 201), MIS 100, ((QMM 240 and QMM 241), or QMM 250)), SBC 199 and SBC 299.
3. Completion of these courses with a 2.0 in each course and an overall 2.6 GPA.
4. Approval of an ''Application for Major Standing in Economics.''
5. Although ECN 302, ECN 303 and ECN 304 are not required for admission to major standing in economics, students must earn a grade of 2.0 or better in ECN 302, ECN 303 and ECN 304 in order to graduate.

Required in the pre-core and core -- 9-11 credits

- ECN 201 - Principles of Microeconomics (4)
  and
- ECN 202 - Principles of Global Macroeconomics (4) or ECN 200 - Principles of Macroeconomics (4)
  or
- ECN 210 - Principles of Economics (6) (combines ECN 201 and ECN 202)
- ECN 303 - Managerial Economics (3)

Required major courses -- 9 credits

- ECN 302 - Intermediate Macroeconomics (3)
- ECN 304 - Consumer and Welfare Economics (3)
- ECN 405 - Econometrics (3)
- ECN 399 - Achieve III - Business Economics (0)

Electives -- choose four courses, at least one of which is a 400-level course -- 12 credits

- ECN 309 - State and Local Public Finance (3)
- ECN 310 - Economics of the Environment (3)
- ECN 315 - Economics of Gender and Ethnicity (3)
- ECN 321 - Financial Markets and the Economy (3)

- ECN 326 - International Economic Development (3)
- ECN 333 - History of Economic Thought (3)
- ECN 338 - Economics of Human Resources (3)
- ECN 367 - Economics of Health Care (3)
- ECN 373 - International Trade (3)
- ECN 374 - International Finance (3)
- ECN 378 - Economic Analysis Of Law (3)
- ECN 380 - Topics in Economics (3)
- ECN 385 - Economics of Industries (3)
- ECN 406 - Time Series Econometrics (3)
- ECN 409 - Urban and Regional Economics (3)
- ECN 418 - Seminar in Economic Policy (3)
- ECN 421 - Monetary Economics (3)
- ECN 456 - Public Finance (3)
- ECN 480 - Special Topics in Economics (3)

30-32 credits total

Requirements for the major in Finance

Major adviser*: Ellen Zhu*

The major in finance leads to an understanding of the theoretical foundations of finance and develops the specific skills, modes of analysis and institutional background useful to work in the finance areas of profit-making businesses or not-for- profit enterprises.

To fulfill requirements for the finance major, students must be admitted to major standing in finance, complete the core program and earn a minimum of 25 credits, as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in FIN 322 and in each prerequisite for a finance course before a finance major, or any Oakland University student, may begin work in that finance course.

Students who have taken FIN 368 , FIN 425, or FIN 430 , ACC 320 or ACC 415 under a previous catalog will be able to count these courses as electives.

Required in the core -- 4 credits

- FIN 322 - Managerial Finance I (4)

Required major courses -- 12 credits

- ACC 301 - Financial Reporting and Analysis (3) *
- FIN 368 - Financial Modeling (3)
- FIN 416 - Investment Analysis (3)
- FIN 422 - Managerial Finance II (3)
- FIN 399 - Achieve III - Finance (0)

*In lieu of ACC 301, students may substitute both ACC 310 and 311.

Electives -- choose three courses from the following (some may require additional prerequisites)** -9 credits

- FIN 417 - Investment Portfolio Management (3)
- FIN 418 - Financial Institutions and Capital Markets (3)
- FIN 419 - International Financial Management (3)

- FIN 420 - Real Estate Investment Analysis (3)
- FIN 425 - Financial Derviatives (3)
- FIN 430 - Mergers and Acquisitions and Corporate Restructuring (3)
- FIN 480 - Special Topics in Finance (3)
  **ACC 320 (3) or ACC 415 (3) may be substituted for one finance elective.

25 total credits

Requirements for the major in General Management

Major adviser: *Cynthia Miree-Coppin*

The general management major allows students to take advanced work in several functional areas of business. Students may not earn a double major in general management and another major of the School of Business Administration.

To fulfill requirements for the general management major, students must be admitted to major standing in general management, complete the core program and earn a minimum of 15 additional credits in electives with a grade of 2.0 or better in each major course. The electives may be chosen from any area within the SBA (courses beginning with ACC, ECN, ENT, FIN, MGT, MIS, MKT, ORG, POM or QMM) and must be chosen from courses numbered 300 or higher; at least six credits must be at the 400 level. A grade of 2.0 or better must be achieved in each prerequisite for a general management elective course before a general management major may begin work in that general management elective course. No more than four credits of independent study (490 courses) may be used to meet the major elective requirement.

Required major course

- MGT 399 - Achieve III - General Management (0)

Requirements for the major in Human Resources Management

Major adviser: *Lizabeth Barclay*

The major in human resources management develops the skills needed to administer the personnel functions of organizations. It is designed primarily for students who intend to pursue careers in administration, personnel management, labor relations, or wherever the management of people at work is a central concern.

Emphasis is placed on developing an intensive understanding of the concepts and techniques needed to acquire, develop and utilize an organization's human resources. The program includes broad coverage of such topics as personnel psychology, personnel administration and labor/management relations, in addition to providing basic knowledge of organizational behavior.

To fulfill requirements for the human resources management major, students must be admitted to major standing in human resources management, complete the core program and earn at least 25 credits as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in each prerequisite for a human resources management course before a HRM major, or any Oakland University student, may begin work in that human resources management course.

Students who have taken ORG 460 under a previous catalog will be able to count this course as an elective.

Required in the core -- 6 credits

- ORG 330 - Introduction to Organizational Behavior (3)
- ORG 331 - Introduction to the Management of Human Resources (3)

Required major courses -- 12 credits

- ORG 399 - Achieve III - Human Resource Management (HRME) (0)
- ORG 430 - Organizational Research Methods (4)
- ORG 434 - Advanced Human Resources Management (4)
- ORG 460 - Compensation and Benefits (4)

Electives — choose two courses, at least one of which must be a 400-level ORG course -- 7-8 credits

- ORG 431 - Leadership and Group Performance (4)
- ORG 432 - Motivation and Work Behavior (4)
- ORG 433 - Labor/Management Relations (4)
- ORG 470 - International Organizational Behavior and Human Resources Management (4)
- ORG 480 - Topics in Organizational Management (4)
- MGT 480 - Seminar: Current Business Topics (4)
- ECN 338 - Economics of Human Resources (3)
- PS 454 - Public Sector Human Resource Management (4)

25-26 total credits

Additional Information:

In addition to the course requirements listed above, students wishing to earn a human resources management (HRM) major must also complete the Human Resources Management Experience (HRME) requirement which will satisfy ORG 399. The options for this requirement are described below:

1. Internship

a. HRME contract -

- Student must receive HRM faculty adviser approval prior to beginning the work experience.
- For students wishing to substitute their current or recent work experience, the student must complete the contract for the appropriate job and schedule a meeting with the HRM major adviser for approval and subsequent exit interview. You may have to provide additional support when using previous experience for this requirement.
- The student's work experience must meet the minimum contact hours requirement (280 hours).

b. Exit interview -

- Upon completion of the internship or equivalent experience, the student must submit written answers to the specified exit interview questions to the major adviser.
- Students must also have their internship supervisor submit a letter on company letterhead to the HRM major adviser stating the following: hours worked, time period (e.g. months/year), and basic job duties.
- Upon documentation of the exit interview, written documentation of the completion of the requirement will be provided to the student and the undergraduate advising office within two weeks.

2. Passing the SHRM Assurance of Learning Assessment Exam

Information concerning this Assessment Exam is available from the HRM Major Adviser. Once the student submits verification of his or her passing score to the HRM Major Adviser, written documentation of the completion of the requirement will be provided to the student and the Undergraduate Advising Office within two weeks.

The above options also satisfy the requirement for ORG 399. This includes all students who have taken ORG 399 since fall 2010.

A grade of S must be obtained for ORG 399.

Requirements for the major in Management Information Systems

Major adviser: *Vijayan Sugumaran*

Management Information Systems (MIS) is about applying information technology to business problems. The emphasis is on finding solutions. To the MIS professional, information technology is a tool, not an end in itself. MIS is concerned with using information and communication technologies to support management at all levels (supervisory, middle, top) and in all business functional areas (accounting, finance, marketing, human resources, and operations management) with the information they need for planning, control, and decision making. In addition to computer technology, MIS considers how managers and knowledge workers actually use information and how system specialists and end users interact during the analysis, design, implementation, and on-going use of information systems. MIS experts attempt to bridge the gap between information technology and people's needs. A related field is Computer Science. The two majors differ in that Computer Science emphasizes the technical side of hardware and system software, whereas MIS emphasizes application software development and the business context in which an information system exists.

To fulfill the requirements for the major in management information systems, students must be admitted to major standing in management information systems, complete the core program and complete at least 27 credits, as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in each prerequisite for an MIS course before an MIS major, or any Oakland University student, may begin work in that MIS course.

Required in the pre-core and core -- 6 credits

- MIS 100 - Business Problem Solving with Information Technology (3)
- MIS 300 - Management Information Systems (3)

Required major courses -- 12 credits

- MIS 305 - Information Technology Foundations (3)
- MIS 314 - Business Database Systems (3)
- MIS 315 - Business Systems Analysis and Design (3)
- MIS 350 - Software Program and Project Management (3)
- MIS 399 - Achieve III - Management Information Systems (0)

Electives -- choose three courses -- 9 credits

- MIS 405 - Networks (3)
- MIS 406 - Information Security Lab (3)
- MIS 420 - Electronic Commerce (3)
- MIS 422 - Business Object Development (3)
- MIS 424 - Business Application Architecture (3)
- MIS 426 - Business Application Technology (3)
- MIS 436 - Decision Support Systems (3)
- MIS 443 - Business Analytics (3)
- MIS 445 - Simulation in Management (3)
- MIS 447 - Practical Computing for Data Analytics (3)
- MIS 450 - Web Analytics (3)
- MIS 480 - Advanced Topics in MIS (3)
- MIS 546 - Business Analytics (3)1
- MIS 563 - Networks (3)1
- MIS 564 - Network Management (3)1

Note
The 500-level MIS courses are open to undergraduate students with the permission of the Faculty Coordinator for the Master of Science in Information Technology Management (MSITM) Program. Students who have taken MIS 406, MIS 443, MIS 447, MIS 445, MIS 450, MIS 546, MIS 563 or MIS 564 under a previous catalog will be able to count these courses as an elective.

27 total credits

Knowledge paths for the major in management information systems

Students pursuing the MIS major can structure their coursework by choosing electives along one of the following knowledge paths:

Systems Analysis, Design, Implementation and Management Knowledge Path

- MIS 100, MIS 300, MIS 305, MIS 314, MIS 315, MIS 350, plus 3 electives

Combined Bachelor and Master Degree (4+1 Plan) Knowledge Path

- MIS 100, MIS 300, MIS 305, MIS 314, MIS 315, MIS 350, plus MIS 546, MIS 563, and 1 elective

Business Analytics Knowledge Path

- MIS 100, MIS 300, MIS 305, MIS 314, MIS 315, MIS 350, plus MIS 443, MIS 436, and one elective from MIS 445, MIS 447and MIS 450.

Networking & Information Security Knowledge Path

- MIS 100, MIS 300, MIS 305, MIS 314, MIS 315, MIS 350, MIS 406, plus MIS 563 and MIS 564

Application Development Knowledge Path

- MIS 100, MIS 300, MIS 305, MIS 314, MIS 315, MIS 350, plus three electives from MIS 420, MIS 422, MIS 424 and MIS 426

Requirements for the Major in Marketing

Major adviser: *John Kim*

The major in marketing develops the specific skills, modes of analysis and background to work in the marketing area of a profit-making business or not-for-profit enterprise. It is designed primarily for students who intend to pursue careers in fields such as marketing, sales, research, product development and management, advertising, communication, retail buying and distribution management.

Emphasis is placed on developing a comprehensive understanding of the concepts and techniques needed to plan and execute the conception, pricing, promotion, and distribution of ideas, goods and services by creating exchanges which satisfy individual and organizational goals. The program includes broad coverage of such topics as marketing management, marketing research, selling and sales management, advertising and communications, sales promotion, business-to-business marketing, not-for-profit marketing, business logistics, retailing, international marketing and Internet marketing.

To fulfill the requirements for the major in marketing, students must be admitted to major standing in marketing, complete the core program and complete a minimum of 25 credits, as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in each prerequisite for a marketing course before a marketing major, or any Oakland University student, may begin work in that marketing course. Students who have taken MKT 460 under a previous catalog will be able to count this course toward an elective requirement.

Required in the core -- 4 credits

- MKT 302 - Marketing (4)

Required major courses -- 12 credits

- MKT 399 - Achieve III - Marketing (0)
- MKT 404 - Consumer Behavior (4)
- MKT 405 - Marketing Research (4)
- MKT 453 - Strategic Marketing Management (4)

Electives -- choose three courses – 9 credits

- MKT 406 - Integrated Marketing Communications (4)
- MKT 420 - Distribution Channels and Logistics (4)
- MKT 430 - Personal Selling (4)
- MKT 450 - International Marketing (4)
- MKT 460 - Entrepreneurial Marketing (4)
- MKT 470 - Business to Business Marketing (4)
- MKT 480 - Seminar in Marketing (4)

25 total credits

Requirements for the major in Operations Management

Major Advisor: *T.J. Wharton*

The major in operations management (OM) provides a strong managerial and technical education to students interested in the field of operations management (e.g., manufacturing planning and control, supply-chain management, project management, lean and quality management). The program will provide students with the fundamental knowledge they need to work effectively in operations functions, as well as advanced knowledge about best practices, current technologies, tools and their application, and leadership skills necessary to operate in a globally diverse and competitive marketplace. Students can choose to specialize in Supply Chain Management or Lean and Quality Management or Project Management. The specialization will appear in the student transcript and the diploma. Students also have the option of not choosing a specialization and getting a general Operations Management Major without any specialization.

To fulfill the requirements for the major in operations management, students must be admitted to major standing in operations management, complete the required courses for the OM Major and the specializations (if chosen) as well as appropriate number of electives as specified below, with a grade of 2.0 or better in each major course. A grade of 2.0 or better must be achieved in POM 343 and in each prerequisite for an operations management course before a student may begin work in that operations management course. Students who have taken POM 435 under a previous catalog will be able to count this course toward an elective requirement.

No Specialization

Minimum of 22 Credits

Advisor: *T.J. Wharton*

Required for OM Major:

- POM 343 - Operations Management (4)
- POM 399 - Achieve III - Operations Management (0)

Electives: Six (6)

- POM 435 - Service Operations Management (3)
- POM 440 - Process Management (3)
- POM 442 - Supply Chain Management (3)
- POM 443 - Operations Planning and Control (3)
- POM 448 - Project Management (3)
- POM 480 - Procurement and Global Sourcing (3)
- POM 480 - Operations Analytics (3)
- POM 480 (HRD 404) - Lean Kaizen in Organizations (4)
- QMM 440 - Management Science (3)
- QMM 452 - Forecasting (3)
- ACC 320 - Managerial and Cost Accounting II (3)

Supply Chain Management Specialization

Minimum of 23 Credits

Specialization Advisor: *Henry Aigbedo*
Most organizations realize that they cannot achieve long-term success if they were to focus on their internal processes only. Thus, an essential feature of SCM is the management of relationships among organizations; which typically have different cultures, goals and strategies. The SCM specialization trains students to manage processes and complex relationships among organizations. Areas covered include planning and design for supply chains (SC), production processes, SC risks, procurement in the traditional and global contexts, distribution in SC and deployment of information technology to facilitate SC operations.

Required for OM Major:

- POM 343 - Operations Management (4)
- POM 399 - Achieve III - Operations Management (0)

Required for Supply Chain Specialization:

- POM 480 - Operations Analytics (3)
- POM 442 - Supply Chain Management (3)
- POM 443 - Operations Planning and Control (3)
- POM 480 - Procurement and Global Sourcing (3)
- MKT 420 - Distribution Channels and Logistics (4)

Electives: One (1)

- POM 435 - Service Operations Management (3)
- POM 440 - Process Management (3)
- POM 448 - Project Management (3)
- POM 480 (HRD 404) - Lean Kaizen in Organizations (4)
- QMM 440 - Management Science (3)
- QMM 452 - Forecasting (3)

Lean and Quality Management Specialization

Minimum of 23 Credits

Specialization Advisor: *Joseph Schiele*

This specialization focuses on the complementary and interdependent subjects of Lean and Quality Management. This specialization examines strategies pursued in order to attain objectives including productivity enhancement, waste reduction, and quality improvements. The set of courses comprising this specialization emphasize organizational efforts toward a customer-driven philosophy for organization-wide continuous improvement efforts.

Required for OM Major:

- POM 343 - Operations Management (4)
- POM 399 - Achieve III - Operations Management (0)

Required for Lean and Quality Specialization:

- POM 480 - Operations Analytics (3)
- POM 440 - Process Management (3)
- POM 443 - Operations Planning and Control (3)
- POM 480 (HRD 404) - Lean Kaizen in Organizations (4)
- ACC 320 - Managerial and Cost Accounting II (3)

Electives: One (1)

- POM 435 - Service Operations Management (3)
- POM 442 - Supply Chain Management (3)
- POM 448 - Project Management (3)
- POM 480 - Procurement and Global Sourcing (3)
- QMM 440 - Management Science (3)
- QMM 452 - Forecasting (3)

Project Management Specialization

Minimum of 23 Credits

Specialization Advisor: *Eugene Fliedner*

The focus of this specialization centers on the ten knowledge management areas comprising the project management body of knowledge. These ten knowledge management areas include project integration, scope, human resource, time, cost, quality, risk, procurement, communications, and stakeholder management. The set of courses comprising this specialization emphasize the skills and techniques necessary to successfully lead and manage projects.

Required for OM Major:

- POM 343 - Operations Management (4)
- POM 399 - Achieve III - Operations Management (0)

Required for Project Management Specialization:

- POM 480 - Operations Analytics (3)
- POM 448 - Project Management (3)
- POM 480 - Procurement and Global Sourcing (3)
- ACC 318 - Accounting Information Systems: Planning and Analysis (3)
- ORG 431 - Leadership and Group Performance (4)

Electives: One (1)

- POM 435 - Service Operations Management (3)
- POM 440 - Process Management (3)
- POM 442 - Supply Chain Management (3)
- POM 443 - Operations Planning and Control (3)
- POM 480 (HRD 404) - Lean Kaizen in Organizations (4)
- QMM 440 - Management Science (3)
- QMM 452 - Forecasting (3)

Bachelor of Science with a Major in Actuarial Sciences

Major adviser: *Ronald L. Tracy*

Because an actuary needs a blend of mathematics, economics, statistics, and finance, this major is offered jointly by the Department of Mathematics and Statistics and the Department of Economics. However, the major in actuarial science differs significantly from the other majors offered by these two departments because it (1) prepares students for jobs in actuarial science as well as provides them with the educational background necessary to pursue an advanced degree in economics, mathematics, statistics, or business administration, (2) integrates two distinctly different disciplines, thereby providing students with a breadth of knowledge that is needed in our fast changing world, and (3) provides students with the analytical and reasoning skills to successfully complete the first two exams in actuarial science offered by the Society of Actuaries.

To earn the Bachelor of Science degree with a major in actuarial science, students must complete a minimum of 124 credits. All required and cognate courses must be completed with a minimum grade of 2.0.

1. Complete

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)

2. Complete

- ACS 300 - Foundations of Probability and Calculus (1)
- unless the student has a grade of at least 3.5 in MTH 254 - Multivariable Calculus or permission of the chief undergraduate adviser
- STA 226 - Applied Probability and Statistics (4)
- STA 427 - Introduction to Mathematical Statistics I (4)

3. Complete

- ECN 210 - Principles of Economics (6)
- or both
- ECN 201 - Principles of Microeconomics (4) and ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200 - Principles of Macroeconomics)
- ECN 302 - Intermediate Macroeconomics (3) or ECN 321 - Financial Markets and the Economy (3)
- ECN 303 - Managerial Economics (3)

4. Complete

- QMM 241 - Statistical Methods for Business II (3)

5. Complete

- FIN 322 - Managerial Finance I (4)
- FIN 416 - Investment Analysis (3) or FIN 425 - Financial Derivatives (3)

- FIN 422 - Managerial Finance II (3)

6. Complete

- ECN 405 - Econometrics (3) or STA 402 - Applied Linear Models I (4)
- ACS 450 - Financial Mathematics (3)

7. Complete

- MIS 314 - Business Database Systems (3)
- MIS 443 - Business Analytics (3) or MIS 546 - Business Analytics (3)

8. Complete one of the following electives

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- STA 425 - Elements of Stochastic Processes (4)
- STA 428 - Introduction to Mathematical Statistics II (4)

9. Complete cognate courses

- ACC 200 - Introductory Financial Accounting (4)
- ACC 301 - Financial Reporting and Analysis (3)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4) (0 OR 4)
- WRT 382 - Business Writing (4)

10. Complete ACHIEVE courses

- SBC 199 - ACHIEVE I (0) (to be taken during the freshman year or first year as an actuarial science major)
- SBC 299 - ACHIEVE II (0) (to be taken during the fall semester of the sophomore year or the second semester as an actuarial science major)
- ACS 399 - ACHIEVE 3 Actuarial Sciences (0) (to be taken during the second semester of the sophomore year or the third semester as an actuarial science major)

11. Earn a minimum grade of 2.0 in all courses applied to the major including cognate courses for the major.

Minors

The School of Business Administration offers 11 minors for students who want to combine their majors with an introduction to the skills, analytical techniques and institutional material of economics or an area of business. Business majors may earn any of the following minors, except in the area in which they are majoring, and the business minor. Once admitted to the business program as a pre-business or undecided business student or as a major, business majors must take all the remaining courses in their minors at Oakland University.

To earn any of these minors (except business), and to take 300- and 400- level business classes, non-business students must meet with the minor coordinator and have an approved minor authorization form detailing the courses and the prerequisites required for the given minor. Once approved for the minor, students must take all the remaining courses in the minor at Oakland University.

Students must complete the prescribed courses for the minor with a grade of 2.0 or better in each course and the prerequisites for each course. Transfer students planning to earn a minor must earn at least nine credits toward the minor at Oakland University; at least six of these nine credits must be in courses at the 300 level or above.

Limit for non-business majors to less than 25 percent of credits in business: All students who are not majors in the SBA and economics majors in either the SBA or the College of Arts and Sciences, whether they have applied for a minor or not, are limited to no more than 25 percent of the total degree credits in business courses. (Students majoring in business economics are not subject to this limitation.) The maximum of 25 percent of total degree credits (usually 32 credits) includes business courses taken at Oakland University and all previous colleges. Economics (ECN) courses QMM 240, QMM 241 , QMM 250 , QMM 440 and QMM 452 are excluded from this requirement. Therefore, students from majors outside the business administration program may not earn more than 25 percent of total degree credits in transfer plus Oakland credits in ACC, ENT, FIN, MGT, MIS, MKT, ORG, POM or QMM courses (excluding those noted above). All student minors are subject to the 25 percent of total degree credits maximum discussed above.

Accounting Minor

Coordinator: *Lori Dorko*

The minor in accounting consists of a minimum of the following 20 credits and any prerequisites for these courses: ACC 200, ACC 210 and 12 additional credits in any accounting (ACC) courses. The minimum grade of 2.0 must be earned in each course in the accounting minor and in the prerequisites for each course. This minor is open to all students except accounting majors.

Business Analytics Minor

Coordinator: *Mark Isken*

The minor in business analytics (BA) consists of 12 credits for SBA students. Non-SBA students should contact the minor coordinator to determine the credit requirements. The BA minor consists of the following courses and their prerequisites: (MTH 121 or MTH 141) and (MTH 122 or MTH 154); QMM 240 (or STA 225 or STA 226), QMM 241 (or QMM 250), MIS 100 (or CIT 120) MIS 443 (or MIS 546), and MIS 447; and any two courses chosen from ECN 405, FIN 425, MIS 436, MIS 445, MIS 450, QMM 440, QMM 452. A minimum grade of 2.0 must be earned in each course in the business analytics minor and in the prerequisites for each course. This minor is open to all majors.

Business Minor

Coordinator: *Frederick Hoffman*

The minor in business consists of a minimum of 20 credits, described as follows, and any prerequisites for these courses: (Take six of the following seven choices) ECN 150 (or ECN 160 or ECN 200 or ECN 201 or ECN 202 or ECN 210), ACC 300 (or ACC 200), MKT 300, MIS 301, MGT 300, FIN 300 and POM 300. A minimum grade of 2.0 must be earned in each course in the business minor and in the pre-requisites for each course. This minor is not open to pre-business students, business undecided students or students holding major standing in the School of Business Administration. Students selecting the business minor cannot earn any other SBA minor. None of the 300-level courses in this minor can be used to fulfill the requirement of any other SBA major or minor. In addition, none of the 300-level courses can be used to fulfill any of the pre-core course requirements for the Master of Business Administration, Master of Accounting, or Master of Science in Information Technology Management degrees at Oakland University.

Economics Minor

The economics faculty believes strongly in its role as a provider of education in economics to a broad range of students in other majors. Even moderate contact with the concepts and applications of economics will be valuable to most students. The minor in economics provides recognition to the student who does not want a major in economics but who has taken several courses in the area.

This minor is open to all students except economics and business economics majors.

Requirements for a liberal arts minor in Economics

The minor in economics consists of a minimum of 18 credits in economics courses including any prerequisites for these courses. Students taking ECN 150 or ECN 160 before ECN 201 or ECN 202 (or ECN 200) who subsequently want to minor in economics, should talk to the minor coordinator.

1. Required course(s)

- ECN 210 - Principles of Economics (6)
    - or both ECN 201 - Principles of Microeconomics (4) and ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200).

2. 12 credits in any 300- or 400-level economics (ECN) courses

Entrepreneurship Minor

Coordinator: *Mark Simon*

This minor helps business and non-business majors launch successful new ventures. For business majors, the minor consists of a minimum of 15 credits and four courses including ENT 301, MKT 460, ENT 440, and either ENT 305 , MGT 454, ENT 480 or ENT 445. For non-business majors, the minor consists of a minimum of 23 credits and six courses. This includes ENT 201 and ENT 202 to help prepare the non-business major for the rest of the program. A minimum grade of 2.0 must be earned in each course and in the prerequisites for each course. This minor is open to all students.

Finance Minor

Coordinator: *J. Austin Murphy*

The minor in finance consists of a minimum of 13 credits in finance courses including FIN 322 and nine additional credits in finance (FIN) courses and any prerequisites for these courses (either ACC 301 or ACC 320 or ACC 415 may satisfy three credits toward the finance minor). The prerequisites for the finance courses normally require up to 26 credits including (MTH 121 and MTH 122) or (MTH 141 and MTH 154), ACC 200 and ACC 210, ECN 201, QMM 240 and QMM 241 (or QMM 250 or STA 225 and/or STA 226). A minimum grade of 2.0 must be earned in each course in the finance minor and in the prerequisites for each course. This minor is open to all students except finance majors. Students who have taken FIN 368 , FIN 425 , FIN 430, ACC 320 or ACC 415 under a previous catalog will be able to count these courses as electives.

Human Resources Management Minor

Coordinator: *Kenneth M. York*

The minor in human resources management consists of a minimum of 18 credits, described as follows: ORG 330, ORG 331 and ORG 434 and eight additional credits chosen from ORG 430, ORG 431, ORG 432, ORG 433, ORG 460, ORG 470, ORG 480 and the prerequisites for these courses. A minimum grade of 2.0 must be earned in each course in the human resources management minor and in the prerequisites for each course. This minor is open to all students except SBA human resources management majors.
Students who have taken ORG 460 under a previous catalog will be able to count this course as an elective.

International Management Minor

Coordinator: *Janell Townsend*

The minor in international management consists of a minimum of 16 credits, described as follows, and any prerequisites for these courses: (ECN 200 or ECN 202 and ECN 201) or ECN 210; ECN 373; MGT 423 and one course

chosen from ECN 326, ECN 374, FIN 419, MKT 450 and ORG 470. Proficiency in a foreign language is not required but is highly recommended. A minimum grade of 2.0 must be earned in each course in the international management minor and in the prerequisites for each course. This minor is open to all majors.

Management Information Systems Minor

Coordinator: *Vijayan Sugumaran*

The minor in management information systems (MIS) consists of a minimum of 12 credits for SBA students. Non-SBA students should contact the minor coordinator to determine the credit requirements. The MIS minor consists of the following courses and any prerequisites for these courses: (MIS 100 or CIT 120 or CSE 120), (MIS 300 or MIS 301 or MIS 302), MIS 305, MIS 314, MIS 315, and one elective in MIS. A minimum grade of 2.0 must be earned in each course in the MIS minor and in the prerequisites for each course. This minor is open to all students except MIS majors. Students who have taken MIS 406, MIS 443, MIS 445, MIS 447, MIS 450, MIS 546, MIS 563 or MIS 564 under a previous catalog will be able to count these courses as electives.

Marketing Minor

Coordinator: *John Kim*

The minor in marketing consists of a minimum of 20 credits, described as follows: MKT 302, MKT 404, MKT 405, MKT 453 and one course chosen from MKT 406, MKT 420, MKT 430, MKT 450 , MKT 460 , MKT 470, MKT 480, and the prerequisites for these courses. A minimum grade of 2.0 must be earned in each course in the marketing minor and in the prerequisites for each course. This minor is open to all students except marketing majors. Students who have taken MKT 460 under a previous catalog will be able to count this course toward an elective requirement.

Operations Management Minor

Coordinator: *Vijayan Sugumaran*

The minor in operations management (OM) consists of a minimum of 13 credits for SBA students. Non-SBA students should contact the minor coordinator to determine the credit requirements. The OM minor consists of the following courses and their prerequisites: MTH 121 or higher, QMM 240 or STA 225 or STA 226, QMM 241 or QMM 250, ACC 210, POM 343 and three courses chosen from POM 435, POM 440, POM 442, POM 443 or POM 448. A minimum grade of 2.0 must be earned in each course in the operations management minor and in the prerequisites for each course. This minor is open to all students except operations management majors.

Students who have taken QMM 440 and POM 435 under a previous catalog will be able to count this course as an elective.

Requirements for the secondary teaching minor in economics

A minimum of 20 credits in economics and business is required for the secondary teaching minor in economics, distributed as follows:

1. Required courses

- ECN 201 - Principles of Microeconomics (4)
- ECN 202 - Principles of Global Macroeconomics (4) (or ECN 200)
- ECN 321 - Financial Markets and the Economy (3)
- ECN 373 - International Trade (3)

- ECN 376 - U.S. and World Economic History (3)
- MIS 100 - Business Problem Solving with Information Technology (3)

2. Required methods course

- SED 427 - ST: Teaching Secondary in the Minor Methods (3 OR 4)

Note
Students are advised to take MIS 100 early in the education program, as the course is likely to be helpful in many courses involving information technology. They should also obtain a supplemental course pack (that covers issue analysis) from the secondary education minor adviser in the department.

Generally, application to OU STEP requires a minimum cumulative grade point average of 3.0 in courses in the major and the minor. To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in both their major and minor coursework, with no single course grade below 2.0.

Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University beyond the stated minimums. Students should consult with the chair in the Department of Economics (445 EH) or with the College of Arts and Sciences advising office (221 Varner).

Course Descriptions

ACCOUNTING

ACC 200 - Introductory Financial Accounting (4)
Introduction to accounting information as an aid to decision-making for external users of financial statements. Students learn how to measure and record accounting data, prepare financial statements and analyze published financial accounting information.
Prerequisite(s): (RHT 160 or WRT 160) and (MTH 121 or MTH 141 or MTH 122 or MTH 154) with a minimum grade of 2.0 in each course. MIS 100 is recommended.

ACC 210 - Managerial and Cost Accounting I (4)
Analysis of accounting methods providing data for optimal managerial decisions, implementation and control. Topics include cost allocation; cost, volume and price relationships; product cost accounting and control systems; operations and capital budgeting, and related behavioral, reporting and information processing aspects.
Prerequisite(s): ACC 200 and (MTH 121 or MTH 141 or MTH 122 or MTH 154) with a minimum grade of 2.0 in each course. MIS 100 is recommended.

ACC 300 - Survey of Accounting (4)
Introduction to financial and managerial accounting. Introduces the measurement systems used to control and evaluate business activities. It also explores product costing systems and using accounting data as a basis for management planning and decision making. Business majors, pre-business students and business undecided students cannot take this course.
Prerequisite(s): sophomore standing.

ACC 301 - Financial Reporting and Analysis (3)
A study of financial accounting and reporting from the perspective of the user of accounting information. The course will emphasize the interpretation and analysis of specific accounting treatments rather than accounting methodology. Recommend FIN 322 prior to or concurrent with ACC 301.
Prerequisite(s): ACC 210, with a minimum grade of 2.0.

ACC 310 - Intermediate Financial Accounting I (3)
A study of financial accounting topics, including accounting valuation and reporting practices. Three major areas examined include financial accounting theory, current and noncurrent assets, and current and noncurrent liabilities.
Prerequisite(s): ACC 210 and (MTH 122 or MTH 154) with a minimum grade of 2.0 in each course.

ACC 311 - Intermediate Financial Accounting II (3)
A continuation of ACC 310. Major financial accounting areas examined include stockholders equity, dilutive securities, investments, income measurement issues, and the preparation and analysis of financial statements.
Prerequisite(s): ACC 310 with a minimum grade of 2.0.

ACC 318 - Accounting Information Systems: Planning and Analysis (3)
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. The Systems Development Life Cycle is used as the course's logical framework, while the Unified Modeling Language set of methodologies is used to model real-world business systems using databases, decision analysis and networking. Prerequisite(s): ACC 210 and (MTH 122 or MTH 154), with a minimum grade of 2.0 in each course.

ACC 320 - Managerial and Cost Accounting II (3)
An analysis of available procedures and techniques to sharpen accounting analyses for managerial planning and control. Extends subjects introduced in ACC 210 to non-manufacturing firms, decentralized firms, transfer pricing and segment performance measurement.
Prerequisite(s): ACC 210 and (MTH 122 or MTH 154), with a minimum grade of 2.0 in each course.

ACC 399 - Achieve III – Accounting (0)
Guide students through the job search process within the Accounting major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

ACC 401 - Advanced Financial Accounting (3)
Topics include accounting and reporting for business combinations, partnerships, consolidated entities, interim financial statements and segments of business enterprises.
Prerequisite(s): ACC 311 with a minimum grade of 2.0, and major standing.

ACC 411 – Auditing (3)
Introduction to the objectives, techniques, and standards of internal and external audits of the accounts of an enterprise. Generally accepted auditing standards will be critically examined. Prerequisite(s): ACC 311 and ACC 318, with a minimum grade of 2.0 in each course and major standing.

ACC 412 - Government and Not-for-Profit Accounting (3)
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.
Prerequisite(s): ACC 311 with a minimum grade of 2.0 and major standing.

ACC 415 - Federal Income Taxation (3)
An introductory tax course that focuses on fundamental federal income taxation concepts, with primary emphasis on business entities (e.g., C corporations, pass-through entities) and secondary emphasis on individual taxation. This course generally follows the objectives of the AICPA Model Tax Curriculum.
Prerequisite(s): (ACC 310 or ACC 301) and (MTH 122 or MTH 154), with a minimum grade of 2.0.

ACC 480 - Special Topics in Accounting (3)
Intensive study of special topics in accounting. See schedule of classes for current offering. May be repeated for a total of 6 credits.
Prerequisite(s): ACC 301 or ACC 311 with a minimum grade of 2.0 and major standing.

ACC 490 - Independent Study (1 to 3)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of 6 credits.
Prerequisite(s): an overall GPA of 3.00 or better, major standing, and an approved contract prior to registration.

ENTREPRENEURSHIP

ENT 201 - Prep for Entrepreneurship 1 (4)
This course introduces students to accounting, finance and economic issues most relevant to entrepreneurs. It is only required of non-business students. MIS 100 or CSE/CIT 120 recommended.
Prerequisite(s): sophomore standing.

ENT 202 - Prep for Entrepreneurship 2 (4)
This course introduces students to Marketing, MIS, POM and Organizational issues most relevant to entrepreneurs. It is only required of non-business students. MIS 100 or CSE/CIT 120 are recommended.
Prerequisite(s): sophomore standing.

ENT 301 - Developing New Venture Ideas (4)
Provides an overview of different types of entrepreneurial business models and endeavors, thereby helping students determine the entrepreneurial path that best suits their goals, interests and skills. The course also teaches general entrepreneurial success principles and how to avoid common mistakes.
Prerequisite(s): Non-business students: ENT 201, ENT 202 with a minimum grade of 2.0. Business students: (QMM 240 or QMM 250 or STA 225 or STA 226), (ECN 202 or ECN 200 or ECN 210), ACC 210, (MIS 100 or CSE 130), MKT 302 with a minimum grade of 2.0.

ENT 305 - The Psychology of Creativity and Innovation (4)
Introduces writings from various disciplines that elucidate the nature and function of creativity and the conditions that stimulate it. Includes writing, design assignments and group projects. Discussions include non-traditional thinking, receptivity, risks, ethics, personal mastery and social responsiveness.

ENT 440 - New Venture Creation (4)
Explores the process for creating new ventures, including ideation, evaluation of business opportunities, business planning, financial planning, financial analysis, and assembling business resources. Students will focus on integrating all aspects of a start-up while recognizing the external environment. Other concepts include competitive analysis, competitive positioning, market segmentation, and issues related to launching new ventures.

ENT 301 and MKT 460 recommended.
Prerequisite(s): Non-business students: ENT 201, ENT 202 with a minimum grade of 2.0. Business students: (QMM 240 or QMM 250 or STA 225 or STA 226), (ECN 202 or ECN 200 or ECN 210), ACC 210, (MIS 100 or CSE 130) , FIN 322, MKT 302 with a minimum grade of 2.0.

ENT 480 - Seminars in Entrepreneurship (4)
Study of selected topic or current issue relevant to the practice of entrepreneurship. Topics may include Social Entrepreneurship, Family Businesses, High Tech Entrepreneurial Ventures or any area not covered by a specific course. May be repeated for a total of 8 credits. ENT 301 is recommended.
Prerequisite(s): Non-business students: ENT 201, ENT 202 with a minimum grade of 2.0. Business students: (QMM 240 or QMM 250 or STA 225 or STA 226), (ECN 202 or ECN 200 or ECN 210), ACC 210, (MIS 100 or CSE 130), FIN 322, MKT 302 with a minimum grade of 2.0.

FINANCE

FIN 300 - Survey of Finance (3)
Course helps students develop a basic understanding of Finance. Topics covered include: (1) financial instruments and the markets in which they are traded, (2) financial planning and analysis, (3) the cost and time-value of money, and (4) the fundamentals of investor decision-making. Business majors, pre-business students and business undecided students cannot take this course.
Prerequisite(s): ACC 200 or ACC 300 and junior standing.

FIN 322 - Managerial Finance I (4)
The basic elements of managerial finance. Topics include: capital budgeting techniques, financial structure and analysis, the cost of capital, working capital management and international financial management. For all SBA students, recommend QMM 241 prior to or concurrent with FIN 322. For finance major students, also recommend ACC 301 concurrent with FIN 322. Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) and ACC 210 and (MTH 122 or MTH 154) and (STA 225 or STA 226 or QMM 240) with a minimum grade of 2.0 in each course.

FIN – 368 Financial Modeling (3)
Learn to develop, solve, and simulate theoretically sound financial models using Microsoft Excel and other analytical tools. The course covers standard financial models including valuation, pro forma model, portfolio optimization, efficient frontier and asset pricing models etc. The course should serve to bridge the gap between financial theory and its implementation. Recommend FIN 416 and FIN 422 concurrent with FIN 368.
Prerequisite(s): FIN 322 and (ACC 301 or ACC 310) and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 and major standing.

FIN 399 - Achieve III – Finance (0)
Guide students through the job search process within the Finance major.
Prerequisite(s): major standing and SBC 199 and SBC 299

FIN 416 - Investment Analysis (3)
Provides a general framework for constructing portfolios and valuing investments. Important concepts include portfolio theory, credit analysis, valuation of call and conversions features on debt instruments, and fundamental analysis of equities and foreign assets. Recommend FIN 422 and FIN 368 concurrent with FIN 416. Prerequisite(s): FIN 322 and (ACC 301 or ACC 310) and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course.

FIN 417 - Investment Portfolio Management (3)
Analyzes trading in different types of spot and foreign assets, futures, options, and investment companies. Tax, transaction cost, and regulatory issues are evaluated, as are asset allocation and timing strategies, technical analysis, hedging, arbitrage, and portfolio management within the context of a financial plan. Prerequisite(s): FIN 416 with a minimum grade of 2.0 and major standing.

FIN 418 - Financial Institutions and Capital Markets (3)
Focus is on the structure and operations of financial intermediaries, analysis of innovative financial instruments, and credit and interest-rate risk management. Prerequisite(s): FIN 416 with a minimum grade of 2.0 and major standing.

FIN 419 - International Financial Management (3)
The application of the tools of financial analysis to cases and the problems of firms that have operations in several countries. Prerequisite(s): FIN 416 and FIN 422 and FIN 368 with a minimum grade of 2.0 and major standing.

FIN 420 - Real Estate Investment Analysis (3)
A look at acquisition, financing and sale of income-producing real estate. Topics to be covered include feasibility, appraisal, investment, financing and taxation. Prerequisite(s): FIN 416 and FIN 422 and FIN 368 with a minimum grade of 2.0 and major standing.

FIN 422 - Managerial Finance II (3)
The application of the tools of financial analysis to specific cases in the financial management of corporate businesses and nonprofit enterprises. Recommend FIN 416 and FIN 368 concurrent with FIN 422. Prerequisite(s): FIN 322 and (ACC 301 or ACC 310) and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course.

FIN 425 - Financial Derivatives (3)
Introduces students to various derivative products such as futures, forwards, swaps and options. Commonly used financial derivatives and their use in various hedging and speculative objectives will be addressed along with various frameworks for pricing derivatives. Prerequisite(s): FIN 416 with a minimum grade of 2.0 and major standing.

FIN 430 - Mergers and Acquisitions and Corporate Restructuring (3)
Examines important issues in mergers and acquisitions, corporate restructuring, and corporate bankruptcy, including choices when faced with restructuring decisions. Addresses investment banking techniques used to enhance the firm's value, and methods of reorganizing a firm outside of bankruptcy. Prerequisite(s): FIN 416 and FIN 422 and FIN 368 with a minimum grade of 2.0 and major standing.

FIN 480 - Special Topics in Finance (3)
Intensive study of a selected finance topic. The topic will vary from term to term. May be repeated for a total of 6 credits. Prerequisite(s): FIN 416 with a minimum grade of 2.0 and major standing.

FIN 490 - Independent Study (1 to 3)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of 6 credits.
Prerequisite(s): an overall GPA of 3.00 or better, major standing, and an approved contract prior to registration.

MANAGEMENT

MGT 110 - Contemporary World Business (4)
This course introduces students to the global business environment. It focuses on how differences in economic systems, national culture, socio-demographics, and political orientations affect business operations. It also provides an introduction to key business activities. Satisfies the university general education requirement in the global perspective knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education.
Prerequisite(s): completion of the university writing foundation requirement. Course is only recommended for non-SBA majors or business students who have not achieved major standing.

MGT 235 - Commerce in Western Civilization (3)
Traces the development of commerce throughout Western Civilization within the context of continuously evolving political, social, cultural and ethical institutions, philosophies and beliefs that define and legitimize the conduct of business and industry within society. The course examines the complex inter-relationships among these institutions, values and beliefs, and how these have affected the development of commerce in Western Civilization to its modern industrial form. Satisfies the general education requirement in the western civilization knowledge exploration area.

MGT 300 - Survey of Management (3)
Course covers traditional business management ideas, recent management thinking, and their application to the management functions of planning, organizing, leading and controlling. Course provides survey of topics such as goal setting, managerial decision making, design of organizations, corporate culture, and organizational change and development.
Prerequisite(s): Sophomore standing. Open to non-business students only.

MGT 350 - Legal Environment of Business (3)
The legal framework of business decisions. Introduction to the legal system and a survey of government regulation of business. Legal, ethical and political issues in employment, consumer protection, antitrust and business associations.
Prerequisite(s): COM 201 or COM 202 with a minimum grade of 2.0 and junior standing.

MGT 399 - Achieve III - General Management (0)
Guide students through the job search process within the General Management major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

MGT 423 - International Business (4)
Analysis of the scope, structure and environment - social, cultural, political, legal, economic and technological- of international business. Emphasizes the roles played by the various business functions, in presenting an integrated view of how managers of multi-national firms cope with the complex international environment.
Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210), junior standing students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MGT 435 - Management Strategies and Policies (4)
Covers the concepts, methodologies and analytical tools used by managers to formulate and implement a firm's strategy. This course also explores the complexities of a firm's internal and external environment and applies knowledge from economics, accounting, finance, POM, marketing, HRM and organization behavior to understand appropriate competitive behavior and resultant firm performance. Satisfies the university general education requirement for a writing intensive course in general education or in the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): (WRT 382 or ENG 382 OR ENG 380) and MKT 302, ORG 331, FIN 322, POM 343 with a minimum grade of 2.0 in each course, major standing and senior standing. For SBA majors only.

MGT 450 - Business Law (4)
Survey of topics in private commercial law under the Uniform Commercial Code. Contracts, agency, property and insurance, secured transactions and commercial paper. Legal responsibilities of the licensed professions.
Prerequisite(s): MGT 350, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MGT 454 - Business Entities (4)
This course emphasizes appropriate selection, formation and operation of the six basic forms of business entity organization. Particular focus is upon issues such as insurance, licensing, capitalization, valuation, distributions, redemptions, formation documentation, annual reporting, state and federal taxation, dissolution, choosing professional assistance, intellectual property, restrictive covenants, employment handbooks, employment agreements, common operating documents, and federal laws affecting entity operation. ENT 301 is recommended.
Prerequisite(s): sophomore standing. Non-business students: ENT 201, ENT 202 with a minimum grade of 2.0. Business students: (QMM 240 or QMM 250 or STA 225 or STA 226), (ECN 202 or ECN 200 or ECN 210), ACC 210, (MIS 100 or CSE 130) with a minimum grade of 2.0.

MGT 480 - Seminar: Current Business Topics (4)
The analysis of topics of current interest in management. Outside faculty and managers may participate in the seminar as an integral part of the course. May be repeated for a total of 8 credits.
Prerequisite(s): Junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. Additional prerequisites may be required depending on the type of course being offered.

MGT 490 - Independent Study (2 or 4)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of 8 credits.
Prerequisite(s): an overall GPA of 3.00 or better, junior standing, major standing in the SBA and an approved contract prior to registration.

MARKETING

MKT 300 - Survey of Marketing (4)
This course introduces students to marketing from multiple perspectives: societal, managerial, business, not-for-profit, etc. Serves as foundation to the introductory marketing course if the student opts for a marketing major later. Course is not open to students who are pre-business, business undecided, or business majors.
Prerequisite(s): sophomore standing.

MKT 302 – Marketing (4)
Analysis of the principles of marketing, marketing concepts and trends, and their relationship to other business principles. Special emphasis is placed on the study of the marketing mix. Prerequisite(s): ECN 150 or ECN 201 or ECN 210 and WRT 160 and (QMM 240 or STA 225 or STA 226) with a minimum grade of 2.0 in each course. Students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 399 - Achieve III – Marketing (0)
Guide students through the job search process within the marketing major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

MKT 404 - Consumer Behavior (4)
Study of factors influencing consumer behavior, structuring and managerial use of consumer decision-making models. Examination of social, psychological and economic variables of buying behavior, including learning, motivation, attitude, personality, small group dynamics, demographic and economic factors and culture.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 405 - Marketing Research (4)
Focuses 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 and the researcher's role in supplying marketing information.
Prerequisite(s): MKT 302, MKT 404, and (QMM 241 or QMM 250) with a minimum grade of 2.0 in each course, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. MKT 404 and/or QMM 241 may be taken concurrently with MKT 405.

MKT 406 - Integrated Marketing Communications (3)
A review of the selection and integration of advertising, promotion, public relations and personal selling budgets. Focused on understanding the whole process from planning to evaluating campaign results.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 420 - Distribution Channels and Logistics (3)
Examination of the management of marketing channel relationships. Focuses on the characteristics and social, economic and political relationships among wholesalers, agents, retailers and the other agencies that comprise distribution channels.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 430 - Personal Selling (3)
Focuses on the activities of personal selling in consumer and industrial markets. Emphasis is on the processes salespeople should follow when interacting with customers and prospects to ensure the needs of customers are successfully met.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 450 - International Marketing (3)
The application of marketing principles to problems associated with marketing products and services to different nations. Cases in international marketing will be analyzed.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 453 - Strategic Marketing Management (4)
This course takes an integrated approach to marketing strategy as it relates to the firm and competitive market environments. It explores and addresses issues through multi-method techniques, including case studies. This course requires knowledge of the foundations of marketing thought and marketing research tools.
Prerequisite(s): MKT 302, MKT 404 and MKT 405 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. MKT 405 may be taken concurrently with MKT 453.

MKT 460 - Entrepreneurial Marketing (3)
The course addresses the role of marketing in newer/smaller companies which usually have accumulated fewer resources to support marketing. They also often struggle to establish their credibility. Thus entrepreneurial marketing poses a unique set of marketing challenges which becomes the focus of this course. ENT 301 is recommended.
Prerequisite(s): Business students: MKT 302 with a minimum grade of 2.0, and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. Non-Business Students may be able to take this course as part of an approved SBA minor. Permission from the minor coordinator is required before registration.

MKT 470 - Business to Business Marketing (3)
The study of the interaction of businesses with one another in the buying and selling of goods that facilitate the production process or are used as components in the goods manufactured by the buying firm. Focus is on how business-to-business marketing decisions are or should be made in the business environment.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 480 - Special Topics (3)
Study of a selected topic or current marketing interest relevant to marketing management. Topics may include retail management, new product development, web marketing, e-commerce, services marketing or any area not covered by a specific course. May be repeated for a total of 8 credits. Additional prerequisites may be required depending on the type of course being offered.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

MKT 490 - Independent Study (2 or 4)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of 8 credits.
Prerequisite(s): MKT 302 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. An overall GPA of 3.00 or better and an approved contract prior to registration is also required.

MANAGEMENT INFORMATION SYSTEMS

MIS 100 - Business Problem Solving with Information Technology (3)
Introduction to the use of information technology in business problem solving and business modeling. Includes hands-on exercises using Windows, Microsoft Office (Word, Excel, PowerPoint and Access), Web browsers, and HTML (Replaces MIS 200).

MIS 300 - Management Information Systems (3)
This course shows how information technology can improve business processes and help managers be more effective decision makers. Topics include network functions, database management and decision support.
Prerequisite(s): MIS 100 or MIS 200 or CSE 125 with a minimum grade of 2.0 and Sophomore Standing.

MIS 301 - Survey of Management Information Systems (3)
Course focuses on the use of information systems in business. Topics include components, types and development of information systems, and uses and benefits of information systems. Relevant technology issues such as security, privacy and ethics will also be introduced. Business majors, pre-business students and business-undecided students cannot take this course. Offered each fall. Prerequisite(s): sophomore standing and MIS 100 or CIT 120 or CSE 120.

MIS 302 - Information Systems and Healthcare Informatics (3)
Introduces students to the nature of healthcare data and healthcare information management by focusing on the use of information systems in healthcare. Topics include: components, types and development of information systems in healthcare. Relevant information technology issues such as security, privacy and ethics will also be introduced.
Prerequisite(s): CSE 120 or MIS 100 with a minimum grade of 2.0 in each course.

MIS 305 - Information Technology Foundations (3)
Covers the technology at the heart of information systems. Topics include operating systems, programming and networks. Includes hands-on projects. Prerequisite(s): MIS 100 or CIT 120 or CSE 120 with a minimum grade of 2.0.

MIS 314 - Business Database Systems (3)
This course discusses the basic concepts in data management and the techniques used to design, implement and maintain modern database applications. It covers various approaches to data modeling, such as entity-relationship diagramming and object modeling with UML. The course also focuses on designing relational databases from data models, querying, designing forms, and generating reports. Students are also exposed to contemporary topics such as data warehousing, data mining, and web databases. Includes projects.
Prerequisite(s): MIS 300 or MIS 301 or MIS 302, and MIS 305 with a minimum grade of 2.0. MIS 305 may be taken concurrently.

MIS 315 - Business Systems Analysis and Design (3)
Introduces the software development life cycle and information requirements analysis. Examines process modeling with UML methods and use case analysis. Exposes students to contemporary methodologies for the analysis, design, and development of information systems. Emphasizes system design (translating requirements specifications and process models into design specifications using object-oriented techniques), interface design, and software testing. Includes projects.
Prerequisite(s): MIS 305 and MIS 314 with a minimum grade of 2.0 in each course, and major standing.

MIS 350 - Software Program and Project Management (3)
Examines issues involved in managing information projects including project scheduling, measurement, assessment, budgeting, and human resource management issues.
Prerequisite(s): MIS 315 with a minimum grade of 2.0 and major standing.

MIS 399 - Achieve III - Management Information Systems (0)
Guide students through job search process within the Management Information Systems major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

MIS 405 – Networks (3)
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.
Prerequisite(s): MIS 300 or MIS 301 or MIS 302; and MIS 305 with a minimum grade of 2.0.

MIS 406 - Information Security Lab (3)
This course seeks to improve the students' understanding of the field of information security and assurance with coverage of new innovations and methodologies for security infrastructure design and implementation, computer forensics, risk assessment and analysis of security requirements of a business operation, while allowing them to apply the basics of their security knowledge in a hands-on laboratory environment.
Prerequisite(s): MIS 300 or MIS 301 or MIS 302; and MIS 305 with a minimum grade of 2.0.

MIS 420 - Electronic Commerce (3)
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 305 with a minimum grade of 2.0.

MIS 422 - Business Object Development (3)
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 300 and MIS 305 with a minimum grade of 2.0 in each course.

MIS 424 - Business Application Architecture (3)
This course focuses on issues related to server-side aspects of web-based applications. It introduces several solution architectures and their relative advantages and disadvantages. Server-side technologies are introduced, such as Java Servlets, Java Server Pages and Java Beans. This project-based course allows students to design and build server-side applications.
Prerequisite(s): MIS 422 with a minimum grade of 2.0.

MIS 426 - Business Application Technology (3)
Students develop business applications with current tools. Topics include client/server systems, user interaction, validation, event-driven programming, and interacting with databases. The course emphasizes hands-on projects.
Prerequisite(s): MIS 305 with a minimum grade of 2.0.

MIS 436 - Decision Support Systems (3)
Using data, model and information systems to support managerial decision making.
Prerequisite(s): MIS 300 or MIS 301 or MIS 302; and MIS 305 with a minimum grade of 2.0 in each course.

MIS 443 - Business Analytics (3)
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 data mining, students learn the basics of Excel VBA programming for creating spreadsheet based analysis tools.
Prerequisite(s): QMM 241 or STA 226 and MIS 100 with a minimum grade of 2.0 in both courses.

MIS 445 - Simulation in Management (3)
This course introduces computer simulation modeling of business processes using a variety of software tools and techniques including discrete event, Monte-Carlo, and systems dynamics. Implications of models and sensitivity analysis for forecasting, planning and decision making in the management environment are explored.
Prerequisite(s): MIS 300 and POM 343 with a minimum grade of 2.0 in each course.

MIS 447 - Practical Computing for Data Analytics (3)
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. Data warehousing and 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.
Prerequisite(s): QMM 241 or STA 226 and MIS 305 or MIS 443 with a minimum grade of 2.0 in both courses.

MIS 450 - Web Analytics (3)
This course will introduce web analytics terminology and the implementation of various web analytics tools. It will also examine the analysis/interpretation of web metrics data, the implementation and measurement of web marketing strategies, and how to take action based on web metrics. The course work will include case studies, data analysis and interpretation, and the implementation of web analytics tools on sample websites.
Prerequisite(s): MIS 300 or MIS 301 or MIS 302 with a minimum grade of 2.0.

MIS 452 - Computer and Network Security (3)
This course focuses on fundamentals of network and computer security technologies. It also explores management and implementation of these technologies in multi-user computer systems (such as LANs) and distributed computer systems (such as the Internet). The course may be taken by either undergraduate or graduate students.
Prerequisite(s): MIS 305.

MIS 480 - Advanced Topics in MIS (3)
A class in a topic of interest to a faculty member such as ecommerce, artificial intelligence, Java or ethics. Topics vary. See Schedule of Classes for current offerings. May be repeated for a total of six credits as long as topic is different.
Prerequisite(s): MIS 300 and MIS 305 with a minimum grade of 2.0 in each course.

MIS 490 - Independent Study (1 to 3)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of six credits.
Prerequisite(s): overall GPA of 3.00 and an approved contract.

ORGANIZATIONAL BEHAVIOR

ORG 330 - Introduction to Organizational Behavior (3)
Examination of the theoretical and empirical issues that affect the management of individual, group and organizational processes, including structure, motivation and leadership. Prerequisite(s): ((ECN 201 and (ECN 200 or ECN 202)) or ECN 210) with a minimum grade of 2.0, Sophomore standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 331 - Introduction to the Management of Human Resources (3)
Examination of applied issues relevant to the management of human resources including recruitment, selection, performance appraisal, introduction to applied research, international human resources management and organizational development. Projects applying course concepts are required.
Prerequisite(s): ORG 330 with a minimum grade of 2.0, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 399 - Achieve III - Human Resource Management (HRME) (0)
Completion of the HR Experience Requirement.
Prerequisite(s): major standing and SBC 199 and SBC 299.

ORG 430 - Organizational Research Methods (4)
Use of various behavioral research strategies as input for managerial problem solving. Review of data collection and feedback procedures, including formal research designs and action research. Computer-based exercises will be required.
Prerequisite(s): ORG 331 and (QMM 241 or QMM 250) with a minimum grade of 2.0 in each course and junior standing.

ORG 431 - Leadership and Group Performance (4)
Comprehensive examination of selected theories of leadership. Emphasis on relevant empirical evidence and application of the theories to case studies that involve leadership behavior and group functioning.
Prerequisite(s): ORG 330, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 432 - Motivation and Work Behavior (4)
Analysis of individual and organizational factors affecting employee motivation, performance and satisfaction in the work environment. Topics include the role of leadership, job design, environmental variation, compensation policies, goal-setting techniques and group influences, as each affects employee attitudes and behavior.
Prerequisite(s): ORG 330, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 433 - Labor/Management Relations (4)
Analysis of management/employee relations in the private and public sector. Topics include factors influencing the supply and demand for labor, evolution and governance of unions, collective bargaining and public policy.
Prerequisite(s): ORG 331, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 434 - Advanced Human Resources Management (4)
Discussion of advanced topics in human resources. Topics include compensation, employee involvement, information systems, development, assessment and selection. A project is required.
Prerequisite(s): ORG 331 and (QMM 241 or QMM 250), with a minimum grade of 2.0 in each course and junior standing.

ORG 460 - Compensation and Benefits (4)
This course introduces issues in compensation and benefit administration. It examines practice context, the criteria used for compensation and benefits, design and implementation issues. Exercises and case studies will demonstrate these concepts.
Prerequisite(s): ORG 331 and (QMM 241 or QMM 250) with a minimum grade of 2.0 in each course and junior standing.

ORG 470 - International Organizational Behavior and Human Resources Management (4)
Examines both international organizational behavior and human resource management in order to prepare 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.
Prerequisite(s): ORG 331, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class.

ORG 480 - Topics in Organizational Management (4)
Intensive study of organizational behavior and/or human resource management topics. Topics vary from term to term. Sample topics: career development, industrial health and safety, etc. May be repeated for a total of eight credits.
Prerequisite(s): ORG 331, junior standing and students without major standing in the SBA must have a cumulative GPA of 2.6 or better to take this class. Additional prerequisites may be required depending on the type of course being offered.

ORG 490 - Independent Study (2 or 4)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of eight credits.
Prerequisite(s): major standing, junior standing, an overall GPA of 3.00 or better and an approved contract prior to registration.

PRODUCTION AND OPERATIONS MANAGEMENT

POM 300 - Survey of Operations Management (3)
This course introduces the student to the operation of both manufacturing and service organizations. Topics included are capacity planning, facility location and layout, production control and scheduling and quality assurance. Business majors, pre-business students and business undecided students cannot take this course. Offered every other winter semester.
Prerequisite(s): junior standing.

POM 343 - Operations Management (4)
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.
Prerequisite(s): (QMM 240 or QMM 241 or QMM 250 or STA 226 or STA 225) and ACC 210 with a minimum grade of 2.0 in each course.

POM 345 - Healthcare Operations Management (3)
Introduces students to operating and management issues and decisions found in healthcare delivery organizations. A general management viewpoint is used with a bias towards operations, marketing, and human resource management. A framework for evaluation of existing and new service concepts and practices for quality assurance and process improvement is established.

POM 399 - Achieve III - Operations Management (0)
Guide students through the job search process within the Operations Management major.
Prerequisite(s): major standing and SBC 199 and SBC 299.

POM 435 - Management of Service Operations (3)
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.
Prerequisite(s): POM 343.

POM 440 - Process Management (3)
This course examines the management of business processes in order to attain objectives including productivity enhancement, cost reduction and quality improvements. Organizational efforts to continuously improve processes and enhance customer satisfaction are examined with a primary focus on the complementary subjects of Lean and Total Quality Management (TQM). Specific topics such as leadership styles; costs of quality; employee empowerment, participation, and teamwork; statistical process control tools; process improvement techniques; product design; variance reduction; value and non-value adding activities; waste elimination; and numerous lean practices and tools will be examined.
Prerequisite(s): POM 343 with a minimum grade of 2.0.

POM 442 - Supply Chain Management (3)
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.
Prerequisite(s): POM 343 with a minimum grade of 2.0.

POM 443 - Operations Planning and Control (3)
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.
Prerequisite(s): POM 343 with a minimum grade of 2.0.

POM 448 - Project Management (3)
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.
Prerequisite(s): POM 343 with a minimum grade of 2.0.

POM 450 - Operations Strategy (3)
This capstone course examines the formulation and implementation of an operations strategy as part of overall business strategy. It will examine managing operations of competitive advantage (cost, quality, speed, and flexibility) in service and manufacturing firms. Cases are used to illustrate various concepts. Only offered winter terms.
Prerequisite(s): POM 343 and POM 443 and (POM 435 or POM 440 or POM 442 or POM 448 or QMM 440) with a minimum grade of 2.0 in each course and major standing.

POM 480 - Special Topics in Operations Management (3)
Intensive study of a selected topic in production/operations management. Topics vary. See Schedule of Classes for current offering. May be repeated for a total of six credits as long as the topic is different.
Prerequisite(s): POM 343 with a minimum grade of 2.0.

POM 490 - Independent Study (1 to 4)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of eight credits.
Prerequisite(s): overall 3.0 GPA and approved contract.

QUANTITIATIVE METHODS

QMM 240 - Statistical Methods for Business I (3)
Descriptive statistics, probability, probability distributions, sampling distributions, estimation, and hypothesis tests. Emphasizes business applications and computer analysis of data. Includes report writing and computer projects, and presentations. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 121 or MTH 122 or (MTH 141 or MTH 154), and MIS 100 (or CSE 125 or CSE 130 or MIS 200) with a minimum grade of 2.0 in each course, and sophomore standing.

QMM 241 - Statistical Methods for Business II (3)
Continuation of QMM 240. Analysis of variance, nonparametric statistics, correlation, regression, statistical process control, and time series analysis. Emphasizes business applications and computer analysis of data. Includes report writing, computer projects, and presentations. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): (MTH 122 or MTH 154) and (STA 225 or STA 226 or QMM 240) with a minimum grade of 2.0 in each course, and sophomore standing.

QMM 250 - Statistical Methods for Business (6)
Covers the same topics as QMM 240 and QMM 241 combined. Intended for motivated students with good writing and analytical skills. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): (MTH 122 or MTH 154) and (MIS 100 or MIS 200 or CSE 125 or CSE 130) with a minimum grade of 2.0 in each course and sophomore standing.

QMM 440 - Management Science (3)
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(s): QMM 241 or QMM 250 with a minimum grade of 2.0 in each course.

QMM 452 – Forecasting (3)
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.
Prerequisite(s): QMM 241 or QMM 250 with a minimum grade of 2.0 in each course.

QMM 480 - Special Topics in Quantitative Methods (3)
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 6 credits. Same topic cannot be repeated.
Prerequisite(s): QMM 240 or QMM 241 or QMM 250 or STA 225 or STA 226 with a minimum grade 2.0 in each course.

QMM 490 - Independent Study (2 or 4)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of a faculty member. Offered every term. May be repeated for a total of 8 credits.
Prerequisite(s): overall GPA of 3.00 or better and an approved contract.

SBC SCHOLAR

SBC 199 - Achieve I (0)
Introduction to functional areas in business, careers in business, Career Services, and the job search process. Students must register for SBC 199 their first term as a pre-business or undecided business major. Course is optional for economics BS or BA.
Corequistite(s): SBC 299.

SBC 230 - SBA Sophomore Scholar I (0)
Oakland University students who are pre-business majors are invited to be SBA Sophomore Scholars if they excelled in their pre-core curriculum including mathematics. This is the first of two courses in the SBA Sophomore Scholar program. Offered every fall semester.
Prerequisite(s): approval of a School of Business undergraduate adviser.

SBC 240 - SBA Sophomore Scholar 2 (0)
This is the second of two courses in the SBA Sophomore Scholar program. Offered every winter semester.

SBC 251 - General SIFE Member (0)
Required of general SIFE members. Student commits to working one to five hours per week on a SIFE project during the semester. Permission of Director of SIFE to register.

SBC 299 - Achieve II (0)
Focus on preparing students for the job search process. Students will develop materials and skills to support one-on-one job interviews.
Prerequisite(s) or Corequisite(s): SBC 199.

SBC 330 - SBA Junior Scholar 1 (0)
Juniors who have SBA major standing can apply to the SBA Junior Scholars. Student must meet GPA requirements. Student will take part in required meetings and be an ambassador for the SBA at specific SBA activities. This is the first of two courses in the SBA Junior Scholar program. Offered fall semester.
Prerequisite(s): approval of a School of Business undergraduate adviser and junior standing.

SBC 331 - SBA Junior Scholar 2 (0)
Juniors who have SBA major standing can apply to be SBA Junior Scholars if they meet the GPA requirements. As a Junior Scholar the student will take part in required meetings and be an ambassador for the SBA at specific SBA activities. This is the second of two courses in the SBA Junior Scholar program. Offered every winter semester.
Prerequisite(s): approval of a School of Business undergraduate adviser.

SBC 351 - SIFE Presenter (0)
Course taken during winter semester by each student member of the presentation team. On average, team members spend about 4 hours per week on the presentation. Team will travel to regional SIFE conference and if eligible national SIFE conference. Requires permission of Director of SIFE to register.

SBC 371 - SBA Integrating Theme Scholar 1 (1)
SBA students with at least a 3.0 GPA, meeting specific pre-core requirements, and having at least two years left before graduation, can apply to be Integrating Theme Scholars. First of four courses in the integrating theme. Theme Scholars are also required to take specific core courses with other Theme Scholars.
Prerequisite(s): approval of the Undergraduate Leadership and Development Center.

SBC 372 - SBA Integrating Theme Scholar 2 (2)
Second of four courses in the integrating theme. Theme Scholars are also required to take specific core courses with other Theme Scholars. Course culminates in a research paper.
Prerequisite(s): SBC 371.

SBC 440 - SBA Senior Scholar 1 (0)
Seniors with SBA major standing can apply to be SBA Senior Scholars. Students must meet GPA requirements and have one year remaining before graduation. Students will take part in required meetings and be an ambassador for the SBA at SBA activities. This is the first of two courses in the SBA Senior Scholar program. Offered fall semester.
Prerequisite(s): approval of a School of Business undergraduate adviser and senior standing.

SBC 441 - SBA Senior Scholar 2 (0)
Seniors with SBA major standing can apply to be SBA Senior Scholars. Students must meet GPA requirements and have one year remaining before graduation. Students will take part in required meetings and be an ambassador for the SBA at SBA activities. This is the second of two courses in the SBA Senior Scholar program. Offered winter semester.
Prerequisite(s): approval of a School of Business undergraduate adviser.

SBC 451 - SIFE Project Vice President (0)
Coordinate a SIFE project to ensure quality, tracks worker's hours, and serves on Executive Committee. Commitment is 4 hours weekly (including meetings). Requires permission of Director of SIFE to register.

SBC 452 - SIFE Functional Area Vice President (0)
Oversees the functional area within OU-SIFE (e.g., marketing, HR, etc.), and serves on Executive Committee. Commitment is 4 hours weekly (including meetings). Requires permission of Director of SIFE to register.

SBC 453 - SIFE President (0)
Oversees the running of OU-SIFE, and chairs the Executive Committee. Commitment is 6 hours weekly (including meetings). Requires permission of Director of SIFE to register.

SBC 473 - SBA Integrating Theme Scholar 3 (1)
Third of four courses in the integrating theme. This course is taken during the Theme Scholars senior year. Theme Scholars are also required to take specific core courses with other Theme Scholars.
Prerequisite(s): SBC 372.

SBC 474 - SBA Integrating Theme Scholar 4 (2)
The last of four courses in the integrating theme. Generally, the Theme Scholar will take MGT 435 this semester as a cohort with the other Theme Scholars. Course culminates in a research paper.
Prerequisite(s): SBC 473.

SBC 475 - SBA Global Project Scholar (2)
Global Project Scholars participate in a variety of semester-long global projects. All involve working with foreign students on firm sponsored projects. Course format ranges from internships, to traveling to a foreign country, to using the Global Interaction Classroom.
Prerequisite(s): major standing and permission of the Leadership Development Center.

SBC 476 - Global Village Program (2)
An integration of cultural and economic understanding through experiential learning. Student will have an opportunity to: work as a global team in a business or non-profit that sponsors a project; gain understanding of solving real world problems; and interact with students from different cultures to gain global perspectives.

SBC 491 - SBA Research Scholar I (1)
SBA students with at least a 3.0 GPA, major standing, and at least two semesters before graduation, can apply to be an SBA Research Scholar. First of two courses in the Research Scholar's program. Student will write a research proposal that will be carried out during the second course.
Prerequisite(s): approval of the Undergraduate Leadership and Development Center.

SBC 492 - SBA Research Scholar II (2)
Second of two courses in the Research Scholar's program. Student will carry out the research proposal that was written in SBC 491.
Prerequisite(s): SBC 491.

SBC 495 - SBA Independent Study (0)
Qualified and highly motivated students may engage in individual research, directed readings or group study under the supervision of the SBA Dean's office. Offered every term. May be repeated for a total of 6 credits.
Prerequisite(s): permission of the SBA Dean's office, an overall grade point average of 3.00 or better, major standing in SBA, and an approved contract prior to registration.

School of Education and Human Services

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Associate Dean: *Michael G. MacDonald*

Office of the Dean: *Leigh Settlemoir Dzwik, assistant dean; Richard DeMent, information technology analyst; Touhue Vang, business manager/budget analyst; Shelly Garretson, development project manager; David Tindall, director of development; James Silvestri, marketing assistant*

Adult Career Counseling Center: *Department of Counseling, Lisa Hawley, chair; Stephanie Crockett, faculty director*

Educational Resources Laboratory: *Barbara B. Campbell, coordinator*

Ken Morris Center for the Study of Labor and Work: *Department of Human Resource Development, David Strubler, chair; Michael P. Long, faculty director*

Lowry Center for Early Childhood Education: *Department of Human Development and Child Studies, Ambika Bhargava, chair; Julie Ricks-Doneen, faculty director*

Center for Autism: *Department of Human Development and Child Studies, Ambika Bhargava, chair*

Pawley Lean Institute: *Department of Human Resource Development, David Strubler, chair; Dennis Wade, faculty director*

Professional Development and Educational Outreach: *Jasmine Bailey, project manager; Donna Rich, administrative project coordinator; Andrea Lewis, assistant program coordinator; Susan Martino, director of program development; Sherry Quinn, director of business development and market research; Lisa A. Reeves, executive director*

Office of Public School Academies: *Judeen Bartos, executive director; Karen Lloyd, associate director; June Wuopio, manager of academic accountability; Shawna Boomgaard, administrative coordinator of special services; Majela Morris, office assistant II*

Reading Recovery Center of Michigan: *Department of Reading and Language Arts, John McEneaney, chair; Mary Lose, director*

School of Education and Human Services Advising: *Jennifer Bellini, adviser; Anna Mrdeza, adviser; Roberta Rea, director; Kai-Lynn Rim, adviser; Laurie Shano, adviser; Adrienne Spitzer, adviser*

School of Education and Human Services Counseling Center: *Department of Counseling, Lisa Hawley, chair; Ashley D. Dunham, coordinator*

School of Education and Human Services Reading Clinic: *Department of Reading and Language Arts, John McEneaney, chair; Ronald M. Cramer and Tanya M. Christ, co-directors*

School and Field Services: *Sharon S. Hiller, director; Brad Parks, coordinator; David Secord, coordinator*

Programs Offered

The School of Education and Human Services offers programs designed to prepare students for careers in teaching, counseling, and human resource development. The programs include a Bachelor of Science in elementary education, a five-year secondary education program leading to teaching certification for selected majors, and a Bachelor of Science in human resource development. Minors in human resource development, training and development, applied leadership skills and in labor and employment studies are also available. Students considering a major in elementary education should consult the Admissions section of this catalog for specific preparation requirements.

The School of Education and Human Services also offers programs leading to the Doctor of Philosophy in reading, Doctor of Philosophy in education with a major in counseling, early childhood education or educational leadership, the Education Specialist in school administration, Education Specialist in early education and intervention, the Master of Arts in counseling, the Master of Arts in Teaching in reading and language arts, the Master of Arts in Teaching in elementary or secondary education,the Master of Education in five areas: early childhood, educational studies, educational leadership, teacher leadership, and special education, and the Master of Training and Development. For information on these programs, see the Oakland University Graduate Catalog.

Additional Services

Adult Career Counseling Center

Located within the SEHS Counseling Center is the Adult Career Counseling Center (ACCC), which provides services for adults from the community who seek guidance in examining career possibilities. The ACCC provides computer-assisted career guidance, individual career counseling and referral services at no charge. The ACCC is located in Room 250A Pawley Hall. Graduate students in the counseling program have an opportunity to work in the ACCC as graduate assistants or practicum counselors. The ACCC can be reached at (248) 370-3092 and oakland.edu/sehs/accc/.

Center for Autism

The Center for Autism includes outreach services (OUCARES), academic programs and research in the field of Autism. Call 248-370-3077 for more information.

Educational Resources Laboratory

The Educational Resources Laboratory, 350 Pawley Hall, (248) 370-2485, provides support for the academic, research and development activities of the School of Education and Human Services. It houses circulating collections of children's and young adult literature as well as curriculum and professional materials. Patrons are provided with a functional setting for the examination, study, research, development, production and evaluation of instructional materials and technologies. Workshops, bibliographic instruction, and reference consultation services for youth literature, K-12 curriculum, instructional technology, and research strategies are available.

Galileo Institute for Teacher Leadership

The Galileo Institute for Teacher Leadership is dedicated to improving the learning of all students, elevating the education profession, enhancing the leadership skills of teachers, and fulfilling the vital role of public education in achieving a civil, prosperous and democratic society. The commitment to the concept of developing teacher leaders, to defining what teacher leadership is and why it is so important is at the heart of the institute.

Ken Morris Center for the Study of Labor and Work

The Ken Morris Center for the Study of Labor and Work, 495C Pawley Hall, (248) 370-3124, provides teaching, research, consultation and public service activities for labor organizations and their members. It coordinates the Minor in Employment Systems and Standards and oversees other credit and non-credit courses, primarily for adult working students who are active in unions. Courses, conferences, residential-institutes and special lectures and training, are offered at on- and off-campus locations, on topics related to work, the needs of working people and labor organizations, and other areas of special concern to union members, leaders and staff.

Lowry Center for Early Childhood Education

The Lowry Center for Early Childhood Education, (248) 370-4100, offers early childhood education programming for children from eighteen months to five years of age. The center is a research and training facility for students and faculty interested in child growth and development and early childhood curriculum.

Public School Academies

Authorizing excellent schools is the focus of the Oakland University Office of Public School Academies. Their strategic priority is to ensure that each Academy provides a quality education to its students, utilizes sound governing policies, and fulfills its fiscal and legal responsibilities. Oakland University Board of Trustees approved the Public School Academy Chartering Policy in 1995 for schools to be located in Wayne, Oakland, and Macomb counties with the hope of making a difference in the education of children in its external environs. With nine schools in close proximity to the university, opportunities exist for OU to have an involved and active relationship with the schools, as well as to foster an atmosphere of collaboration and partnership among the academies.

Pawley Lean Institute

Designed to benefit Oakland University students, schools, nonprofits, government and industry, the Pawley Lean Institute (PLI) shares concepts and practices of Lean thinking to create leaders and learners in the university, public and private sectors, and the community.

Professional Development and Education Outreach

The Office of Professional Development and Educational Outreach, 410D Pawley Hall, (248) 370-3040 or (248) 209-2460, or oakland.edu/pd, collaborates with academic departments in coordinating and maketing off-campus courses, certificates, distance/on-line learning, and other programs for teachers, school administrators, counselors, career changers, human resource personnel, workforce development specialists and training and development professionals. As an outreach unit of the School of Education and Human Services, the office builds partnerships with organizations desiring university credit or continuing education units for staff development programs. SEHS Professional Development also has offices at Oakland Schools in Waterford and the Macomb Intermediate School District in Clinton Township.

Professional development staff also provides consulting services, staff training and training materials in career development and leadership for career development personnel working in agencies, business and industry, government and education.

Reading Recovery Center of Michigan

The Reading Recovery Center of Michigan, 228 Pawley Hall, (248) 370-3057, coordinates a cooperative program with more than 100 school districts across Michigan to provide short term early literacy intervention services for first grade children having extreme difficulty learning to read and write. Most children served by Reading Recovery® make accelerated progress and meet grade level expectations in reading and writing after 12 to 20 weeks of daily, individual 30 minute lessons. The Oakland University center supervises the initial training and ongoing professional development of Reading Recovery teachers and works with Michigan school districts to plan for and implement this early intervention program.

School of Education and Human Services Advising Office

The School of Education and Human Services (SEHS) Advising Office, 363 Pawley Hall, (248) 370-4182 is responsible for providing academic advising and career counseling for undergraduate and post-baccalaureate students in the Bachelor of Science degree in elementary education, secondary teacher education program (STEP), Human Resource Development, and Master of Arts in Teaching with elementary or secondary certification.

School of Education and Human Services Counseling Center

The School of Education and Human Services (SEHS) Counseling Center offers no-cost counseling to Oakland University students and the general public.

The SEHS Counseling Center works with individual adults, adolescents, and children, as well as couples, families and groups. Counseling is provided for a wide variety of daily living issues, such as anxiety, stress, grief and loss, time management, life transitions, relationship issues and behavioral issues, to name a few. The SEHS Counseling Center is equipped with career assessments to aid those in their career exploration, educational goals and job search.

All sessions are conducted by a closely supervised masters or doctoral level counselor near the end of his or her training. Sessions are professional, ethical and confidential. Clients are assigned to counselors for a semester-long time period. The center is open Monday through Saturday year-round, with the exception of university breaks. There are three ways to register for an appointment: by phone, call (248) 370-2633; in person, go to 250 Pawley Hall (second level) or register online at oakland.edu/sehs/cc.

School of Education and Human Services Reading Clinic

The School of Education and Human Services (SEHS) Reading Clinic, 204 Pawley Hall, (248) 370-3054, offers tutorial and small-group instruction for children in grades one through twelve to help overcome reading difficulties. Clinics are offered several times each year and are staffed by experienced teachers completing the practicum phase of their master's degrees in reading and language arts. Oakland University faculty supervise each clinic. Instruction typically focuses on comprehension, word recognition (including phonics), writing, literature, study skills, and oral language.

School and Field Services

The Office of School and Field Services, 385 Pawley Hall, (248) 370-3060, and oakland.edu/sehs/sfs, is responsible for the placement of pre-service field students and interns in elementary, secondary, art and music education.

Department of Counseling

491B Pawley Hall (248) 370-4179
Fax: (248) 370-4141
Department Website: oakland.edu/counseling/

Chair: *Lisa D. Hawley*

Professors emeriti: *Jane S. Goodman, LuEllen Ramey, Howard Splete*

Professors: *James T. Hansen*

Associate professors: *Thomas W. Blume, Michael P. Chaney, Jr., Robert S. Fink, Lisa D. Hawley, Todd W. Leibert, Brian J. Taber*

Assistant professors: *Stephanie Crockett, Jennifer Matthews*

Special Instructor: *Terrance R. McClain*

Within the School of Education and Human Services, the Department of Counseling offers undergraduate courses in career exploration, crisis intervention and foundations of counseling. See the Graduate Catalog for the Master of Arts in Counseling, post-master's specializations in Mental Health Counseling, Child and Adolescent Counseling, Couple and Family Counseling, Addictions Counseling, Advanced Career Counseling, School Counseling and Wellness Counseling. A Ph.D. program is offered with a focus on any of the above cognate areas.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

CNS 264 - Educational and Career Exploration (2)
Introduction of key aspects of personal career decision making, encompassing self-assessment, occupational search, and the relationship between academic majors and future career options. Use of internet and computerized career assessment systems, inventories, and exercises in exploration, planning and goal setting.

CNS 274 - Integrating Academic, Career, and Professional Development (2)
This course helps nontraditional students with their unique academic and career planning decisions. Academic and career choices are framed in terms of self-knowledge, decision-making skills, life experiences, family and other personal relationships, economic status, and goals. Small group experiences and assignments provide opportunities for reflection.

CNS 300 – Introduction to Skills of Counseling (4)
This course consists of classroom and laboratory study of basic counseling skills applicable to a variety of helping professions. Audio and video recordings of role-played sessions are used to develop listening skills and build empathy for the experience of those who are recipients of helping processes.

CNS 310 - Lesbian, Gay, Bisexual, Transgender Issues in Counseling (4)
The purpose of this course is to enhance students' multicultural competence by introducing students to major issues associated with sexual orientation and gender identity and expression, and how these issues historically and currently are addressed in the counseling and psychological literature. Issues addressed include mental and physical health, identity development and the coming out process across the lifespan, psychosocial consequences of internalized homonegativity and heterosexism, family and relationship issues, spirituality, affirmative counseling, and professional ethics when working with LGBTQ clients. Mental health issues associated with LGBTQ individuals' intersecting identities are also examined (i.e., race, ethnicity, gender, social status, ability etc.).

CNS – 315 Mental Health Policy (4)
Introduction to Mental Health Policy is a survey course in which the student will become familiar with mental health policy history and current impact of mental health policy on mental health services. The course covers the foundation of government and public mental health agencies and the current implementation of policies. Special attention to the impact of policy on individuals with mental health issues, families and the structures which serve them. Historical and current mental health advocacy approaches will also be discussed. Students are expected to obtain proficiency in knowledge and professional writing through project based instruction and knowledge exams.

CNS 431 - Crisis Intervention and the Prevention of Self Harm (4)
Provides an introduction to crisis intervention and the prevention of self-harm from a health promotion perspective.

CNS 450 - Foundations of Counseling (4)
Foundations of Counseling is a survey course in which students will become familiar with the field of professional counseling. The course covers foundations of counseling including: role of counselors in contemporary society, ethical and legal issues, basic counseling techniques, multicultural counseling, and current issues in counseling.

Department of Human Development and Child Studies

405B Pawley Hall (248) 370-3077
Fax: (248) 370-4242
Department Website: oakland.edu/sehs/hdcp/

Chairperson: *Ambika Bhargava*

Associate professors: *Ambika Bhargava, Chaturi Edrisinha, Janet E. Graetz, Darlene A. Groomes, Andrew S. Gunsberg, James M. Javorsky, M. Shannan McNair, Sherri L. Oden, Julie Ricks-Doneen, Erica A. Ruegg, Sunwoo Shin*

Assistant professors: *Jessica Korneder, Tierra B. Tivis*

Special Instructor: *Nicholas P. Lauer*

Within the School of Education and Human Services, the faculty of the Department of Human Development and Child Studies offers courses in special education at the undergraduate level for students pursuing a career in teaching. A major in early childhood education that meets the ZS endorsement requirements is available for elementary education students. The department houses master's degree programs in early childhood education and special education; these graduate programs provide endorsements and/or professional education certification requirements. The department also offers a doctor of philosophy degree in early childhood.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

EARLY CHILDHOOD

EC 320 - Child Development - Birth to Age 8 (4)
This course focuses on social, emotional, cognitive, physical & linguistic development of children from birth to age 8. The focus will be on theories of development as well as developmental milestones.

EC 322 - Language Arts, Literacy and Creative Arts - Curriculum and Assessment (4)
Focus: study of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum; planning, implementing, and evaluation of developmentally appropriate activities in art, music, movement, and play; the integration, evaluation and documentation of learning in language arts, literacy and creative arts.
Prerequisite(s): EC 320.

EC 324 - Science and Mathematics - Curriculum and Assessment (4)
Focus on a constructivist approach to teaching and learning, mathematics and science, concepts and skills in early childhood (birth to age 8). Developing meaningful curricular content, supporting an inquiry approach to learning, planning for diverse learners, project based learning experiences, assessment and integration of Michigan early childhood standards are explored.
Prerequisite(s): EC 320.

EC 326 - Supporting Self-Regulation in Young Children (4)
Focus: Development of self-regulation in children during the early years. Particular attention is given to both normative and atypical growth in the areas of self-control and executive functioning. Various theoretical perspectives will be integrated to develop child guidance principles and techniques applicable in early childhood classrooms.
Prerequisite(s): EC 322 and EC 324

EC 328 - Family, Community & School Partnership (4)
This course examines the family, community and school relationship and impact on children's lives. The impact of diverse families on child rearing and education are addressed as well as the role of the teacher in collaborating with and maintaining relationships with the family and community.
Prerequisite(s): EC 322 and EC 324.

EC 330 - Professionalism, Leadership & Advocacy (4)
This course will focus on current critical issues in early childhood education. Guidelines and standards will be used to focus on the legal, ethical, and professional dimensions of becoming an early childhood educator. Additionally, the course will attend to the development of leadership, administration, and management skills.
Prerequisite(s): EC 326 and EC 328

EC 332 - Early Childhood Practicum 1 (3)
ECE Practicum experiences are designed to provide students with opportunities to observe and practice in supervised, high-quality early childhood settings. Students are involved in planning curriculum and assessment, observing and recording children's growth and learning, interacting with children, families and colleagues and practicing teaching skills.

EC 333 - Early Childhood Practicum 2 (3)
See description for EC 332. As students advance from Practicum 1 to Practicum 2, they will assume greater responsibility, the responsibility for planning and supervision, child evaluation, family conferences and family newsletters. Prerequisite(s): EC 326 and EC 328.

FOUNDATION OF EDUCATION

FE 406 - Educational Psychology for K-12 Educators (4)
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 cultural interactivity. Admission to major. Required field experience. Crosslisted with FE 506.

SPECIAL EDUCATION

SE 401 - Introduction to Students with Special Needs (4)
Introduction to special education, atypical children, individual differences, learner environment and instructional adaptations. Cross-listing with SE 501.

Department of Organizational Leadership

475E Pawley Hall (248) 370-4109
Fax: (248) 370-4095, Lisa Montgomery
Department Website: oakland.edu/sehs/dol

Chairperson: *David C. Strubler*

Professors emeriti: *F. James Clatworthy, William C. Fish, Eric J. Follo, James W. Hughes, Patrick J. Johnson, William G. Keane, Billy J. Minor, M. Sharon P. Muir, Sandra P. Packard, Robert G. Payne*

Professors: *Susan M. Awbrey, Julia B. Smith, David C. Strubler*

Associate professors: *Cynthia L. Carver, Shannon R. Flumerfelt, Eileen S. Johnson, Michael P. Long, C. Robert Maxfield, Jr., Jana Nidiffer, James A.Quinn, Chaunda L. Scott, Tomas R. Giberson, Caryn M. Wells*

Assistant professors: *Larry A. Buzas, C. Suzanne Klein, William L. Solomonson, V. Thandi Sulé*

Special instructors: *Christine M. Abbott, Mark S. Doman*

Visiting Assistant Professor: *Jennifer E. Wenson*

The Department of Organizational Leadership of the School of Education and Human Services offers a program leading to the degree of Bachelor of Science in Human Resource Development. This field of study focuses on four areas: organization development, training and development, career/leadership development, and employment systems and standards. The degree program covers topics in these focus areas related to instructional design and delivery, lean leadership, program evaluation, performance appraisal, personnel selection, recruiting, ethics, organization development, principles of leadership, labor relations, employment law, employee involvement, and cultural diversity. Graduates are prepared with conceptual knowledge and technical and interpersonal skills for a variety of careers.

Advising

Students should meet with the professional academic adviser for assistance with schedule planning, completing the program plan, interpreting degree requirements, admission to major standing, transfer credits, petitions of exception and graduation audits. The advising office is located in 363 Pawley Hall, (248) 370-4182. Students are encouraged to meet with their adviser at least once per academic year.

Admission to Major Standing in Human Resource Development

To be admitted to major standing a student must satisfy the following requirements:

1. Complete a minimum of 40 credits at an accredited college or university with a cumulative GPA of 2.50 or better. Courses that carry no numerical or letter grade (such as S/U) are excluded from calculation of the GPA.
2. Complete the HRD core courses with a minimum grade of 2.8 in each course.
3. Submit an "Application for Major Standing" during the semester in which the student expects to complete the core requirements.
4. Meet with the HRD Academic Adviser and complete an approved HRD program plan.

Related Minors and Concentrations

Students who wish to obtain a minor offered by SEHS must obtain the approval of the human resource development program adviser. If the minor or concentration is within a school other than SEHS, students must obtain approval from the adviser of the selected minor. Please note that one course cannot be used to satisfy the requirements of three categories under the Department of Organizational Leadership. This means that one course cannot be used to meet the requirements of an HRD major and two HRD minors or to meet the requirements of all three HRD minors.

Departmental Honors

HRD honors are available to students who meet the following standards: a 3.50 or better cumulative average for all courses taken at Oakland University; a 3.70 or better cumulative average in department courses (excluding HRD 499).

Requirements for the major in Human Resource Development, B.S. program

The curriculum described shall be followed by students admitted to pre-HRD status. Admission to pre-HRD status requires a cumulative grade point average of 2.50 or better. Students admitted to Oakland University pre-HRD status prior to fall 2010 may choose to satisfy either the degree requirements listed in this catalog or those in the catalog of the academic year in which they were initially admitted to Oakland University pre-HRD status (or any catalog during the interim), provided that catalog is not more than six years old at the time of graduation. Students who transfer to the School of Education and Human Services after admission to the university or who are readmitted to the university are required to follow the requirements of the catalog in effect at the time they transfer or are readmitted. Students using this catalog to meet major or minor requirements may also use any course subsequently approved as satisfying requirements and published in a later catalog.

To earn a Bachelor of Science degree with a major in human resource development, students must:

1. Complete a minimum total of 124 credits.
2. Complete at least 32 credits in courses at the 300 level or above at Oakland University.
3. Take the last 8 credits needed to complete the baccalaureate degree requirements at Oakland University.
4. Have a cumulative grade point average of at least 2.50.
5. Satisfy the writing requirement (see Undergraduate degree requirements).
6. Complete the university general education requirement with a minimum total of 40 credits (see Undergraduate degree requirements).
7. Satisfy the university U.S. diversity requirement (HRD 367 in the HRD major satisfies this requirement).
8. Complete the human resource development core (32 credits), human resource development focus area courses (32 credits), internship or alternative (8 credits), and general electives (12 credits). Students must obtain a minimum grade of 2.8 in each HRD required course.

Required courses for the Bachelor of Science degree in human resource development

The program leading to the Bachelor of Science degree in human resource development includes the following HRD courses, electives and internship.

A. HRD Core Courses -- 32 credits

Core courses introduce important theoretical constructs and tool skills for pursuing a major in human resource development. Students must earn a minimum grade of 2.8 in each of the following core courses:

- HRD 303 - Ethics in Human Resource Development (4)
- HRD 306 - Introduction to Human Resource Development (4)
- HRD 309 - Human Resource Information Systems (4)
- HRD 310 - Instructional Design (4)
- HRD 324 - Work and the Law (4)
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- HRD 372 - Staffing, Performance Evaluation and Interaction within Organizations (4)

B. HRD Focus Area Courses -- 32 credits

HRD Focus Area courses should be taken after students finish the HRD Core courses. HRD Focus Area courses must be completed with a minimum grade of 2.8. There are four HRD Focus Areas: Organization Development, Training & Development, Career/Leadership Development and Employment Systems & Standards. The student is required to take the asterisked (*) course in each of the four HRD Focus Areas plus one elective course in each of the four HRD Focus Areas.

Organization Development

- HRD 401* - Change Process and Organizational Analysis (4) *
- HRD 304 - Lean Principles and Practices in Organizations (4)
- HRD 351 - Fundamentals of Human Interaction (4)
- HRD 404 - Lean Kaizen in Organizations (4)
- HRD 440 - Strategic Planning (4)

Training & Development

- HRD 423* - Instructional Methods (4) *
- HRD 307 - Presentation and Facilitation (4)
- HRD 402 - Program Evaluation (4)
- HRD 472 – E-Learning in Organizations (4)

Career/Leadership Development

- HRD 364* - Career Development (4) *
- HRD 308 - Principles of Leadership (4)
- HRD 323 - Negotiation for Personal Success (4)

Employment Systems & Standards

- HRD 320 *- Introduction to Labor and Employment Relations (4) *
- HRD 321 - Introduction to Public Sector Labor and Employment Relations (4)
- HRD 322 - The Study of Labor and Work Organizations (4)
- HRD 326 - Collective Bargaining and Dispute Resolution (4)
- HRD 327 - Employee Benefits (4)
- HRD 328 - Civil Rights and Regulations in Employment (4)
-

C. General Elective Courses -- 12 credits

The general electives allow students to take courses that support their individual interests and career aspirations. General elective courses must be at the 100 level or higher, and may be from HRD or any other field of interest.

D. Human Resource Development Internship -- 8 credits

Internship requirements may be met by the completion of a professional internship, a research internship, a project internship, or a combination of two or three of these options. Applications for internships must be submitted by the designated deadlines (fall semester - June 15, winter semester - October 15 and summer semester - February 15). Applications will not be accepted after the deadline. The internship must be completed with a minimum grade of 2.8.

Professional internship (see prerequisites below in HRD 499 course description)

In order for a student to complete a professional internship, eight credits must be completed at an approved internship placement site for a total of 320 hours of work in the field of human resource development.

Research internship

A research internship of eight credits may be completed by students who have the requisite backgrounds and skills to produce research work at the undergraduate level in the field of human resource development. To qualify for a research internship, students are required to have successfully completed the courses normally required for an HRD internship plus any additional courses appropriate for the acquisition of skills necessary for completion of the internship project(s).

It is required that a student intending to pursue this internship has previously conferred with an HRD faculty member regarding the availability of an appropriate research project and the willingness of the HRD faculty member to supervise the intern in his or her completion of the research project.

Students wishing to pursue a research internship must complete an application form available at the HRD internship office, including describing the proposed research internship. This form must also be signed by the HRD faculty member who has agreed to supervise the student. Completed applications must be submitted no later than the dates designated above for internship approval. Applications will be reviewed for approval or disapproval by a committee of the Department of Organizational Leadership.

Project internship

A project internship of eight credits may be completed by students who have completed a minimum of two (2) years of work in the field of Human Resources or who are subject to special circumstances. To qualify for a project internship, students are required to have successfully completed the courses normally required for an HRD internship plus any additional courses appropriate for the acquisition of skills necessary for completion of the internship project(s).

It is required that a student intending to pursue a project internship has previously conferred with an HRD faculty member regarding the availability of an appropriate project or projects to complete as part of the internship and the willingness of the HRD faculty member to supervise the intern.

Applications must be obtained from the HRD Internship Coordinator. Completed applications must be submitted no later than the dates designated above for the internship approval. Applications will be reviewed for approval or disapproval by a committee of the Department of Organizational Leadership.

Requirements - Minor in Applied Leadership Skills

The School of Education and Human Services (Department of Organizational Leadership) offers the following interdisciplinary minor, which is available to all students at the university. The minor in Applied Leadership Skills is a program of study that provides an academic background emphasizing education in leadership, group dynamics and interpersonal processes, ethics, multicultural leadership, and leadership in organizations from a cross disciplinary approach. The aim of this program of study is twofold. First to allow students to develop an academic understanding of leadership. Then, to assist students in developing leadership capabilities. This program of study may be useful to any student interested in developing skills that will expand the student's leadership capabilities for application within their communities, businesses or other organizations.

No more than eight credits of course work used to satisfy another major, minor or concentration may be applied toward this minor. Students must meet with the coordinator of the minor to design a plan and complete a Minor Authorization Form identifying appropriately selected courses. The minor requires a minimum of 23 credits distributed among the areas described below. The student must earn a final course grade of 2.8 or higher in a course in order for the class to be counted for the minor.

a. Core course in Leadership Principles -- Must complete one of the following

- COM 302 - Communication in Leadership (4)
- HRD 308 - Principles of Leadership (4)

b. Group Dynamics/Interpersonal Processes in Leadership -- Must complete two of the following courses

- COM 202 - Group Dynamics and Communication (4)
- COM 303 - Relational Communication Theory (4)
- COM 305 - Relational Communication (4)
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 351 - Fundamentals of Human Interaction (4)
- ORG 431 - Leadership and Group Performance (4)

c. Ethics in Leadership -- Must complete one of the following courses

- PHL 316 - Ethics In Business (4)
- PS 317 - International Politics of Human Rights (4)
- HRD 303 - Ethics in Human Resource Development (4)

d. Multicultural Leadership -- Must complete one of the following courses

- PS 330 - Politics of Development (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- COM 385 - Multicultural Communication (4)

e. Leadership in Organizations -- Must complete one of the following courses

- HRD 320 - Introduction to Labor and Employment Relations (4)
- HRD 401 - Change Process and Organizational Analysis (4)
- MGT 300 - Survey of Management (3)
- ORG 330 - Introduction to Organizational Behavior (3)
- PS 300 - American Political Culture (4)

Additional Information

Students may want to consider planning their course work in a way that allows them to meet any of the prerequisites for the above courses. In particular, students are urged to take the following General Education courses: PHL 103, PS 114 or PS 100, and any foreign language. Study abroad opportunity through International Education may serve as a substitution for one or more of the course requirements, as determined by the coordinator of the minor. (See Director of International Education, for opportunities.)

Requirements – Minor in Employment Systems and Standards

Employment Systems and Standards is an interdisciplinary minor that provides an academic background for understanding the practical and theoretical bases of the employee/employer relationship, both where a collective bargaining relationship exists and where it does not. This program may be particularly useful to individuals interested in the operational aspects of employment including the law, collective bargaining, employment regulations, personnel practices, philosophy of employment, and the dynamics of employment-related leadership and participative roles.

This minor is open to any student who has been admitted to the university. Course-work is scheduled to maximize accessibility to both full-time undergraduates and part-time working students. Students who seek to apply credits toward a degree must contact an adviser to design a degree plan and to select appropriate courses.

This minor requires 23 or 24 credits distributed among the areas of preparation listed below. The plan of study is subject to the approval of the coordinator for the minor. The student must earn a final course grade of 2.8 or higher in each of the required courses in order for the class to be counted for the minor.

The courses for the minor in employment systems and standards are as follows (23 or 24 credits):

a. Must complete one of the following

- HRD 320 - Introduction to Labor and Employment Relations (4)
- HRD 321 - Introduction to Public Sector Labor and Employment Relations (4)

b. Must complete the following two courses

- HRD 324 - Work and the Law (4)
- HRD 328 - Civil Rights and Regulations in Employment (4)

c. Must complete three of the following courses

- HRD 307 - Presentation and Facilitation (4)
- HRD 322 - The Study of Labor and Work Organizations (4)
- HRD 323 - Negotiation for Personal Success (4)
- HRD 326 - Collective Bargaining and Dispute Resolution (4)
- HRD 327 - Employee Benefits (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- WGS 322 - Women in Modern America (4)
- HRD 440 - Strategic Planning (4)

Requirements – Minor in Human Resource Development

The School of Education and Human Services offers a minor in human resource development for students other than HRD majors who wish to strengthen their academic majors with course-work in human resource development.

To obtain a minor in HRD, a student must:

1. Complete the minor authorization form with the approval of the HRD minor coordinator.
2. Complete the minor core courses (24 credit hours) with a minimum grade of 2.8 in each course.

Minor core -- 24 credits

- HRD 306 - Introduction to Human Resource Development (4)
- HRD 310 - Instructional Design (4)
- HRD 324 - Work and the Law (4)
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- HRD 372 - Staffing, Performance Evaluation and Interaction within Organizations (4)

Requirements - Minor in Training and Development

The minor in Training & Development is a specialized minor that is intended for students who are interested in training and development functions in the workforce. Students are provided with academic and practical knowledge, skills, and classroom experience specifically in the areas of training and development, adult education and instructional design. This program may be particularly useful to individuals majoring in human resources, management, nursing, wellness and health promotion and education, as well as those with a general interest in designing, developing and delivering training and other presentations in their respective fields.

The minor is open to any student who has been admitted to the university. Courses are scheduled to maximize accessibility to both full-time undergraduates and working adult students. Students who seek to apply credits toward a degree must contact an adviser to design a degree plan and to select appropriate courses.

The minor requires 24 credits. The student must earn a final course grade of 2.8 or higher in each of the required courses in order for the class to be counted for the minor.

The courses for the Minor in Training and Development are as follows:

- HRD 306 - Introduction to Human Resource Development (4)
- HRD 307 - Presentation and Facilitation (4)
- HRD 310 - Instructional Design (4)
- HRD 402 - Program Evaluation (4)
- HRD 423 - Instructional Methods (4)
- HRD 472 - Technology-Based Instruction (4)

Requirements – Minor in Lean Leadership

Lean Leadership is a specialized minor that is intended for students who want to enhance their career opportunities and add value to their employers through lean knowledge, practice, and leadership in the workplace. Students may use the minor to receive a Lean Green Belt. All students interested in pursuing the minor must meet with the HRD advisor in the School of Education and Human Services in Pawley Hall.

- HRD 304 - Lean Principles and Practices in Organizations (4)
- HRD 308 - Principles of Leadership (4)
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 395 - Lean Green Belt Certificate (2)
- HRD 401 - Change Process and Organizational Analysis (4)
- HRD 404 - Lean Kaizen in Organizations (4)
- HRD 472 - E-learning in Organizations (4)

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

HRD 303 - Ethics in Human Resource Development (4)
Introduces the forces that shape ethical behavior in the workplace; ethical considerations in transactions with employees, supervisors and peers; ethical responsibility in the marketplace and society; and how to solve ethical problems.
Prerequisite(s): WRT 160 or equivalent.

HRD 304 - Lean Principles and Practices in Organizations (4)
This course focuses on the application of systems theory as it relates to lean implementation on the human component in an organization. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement for a writing intensive course in general education or the social science knowledge exploration area.

HRD 306 - Introduction to Human Resource Development (4)
Introduces strategic assumptions affecting individual and organizational development priorities. Investigates roles and competencies for HRD practitioners in a variety of workplace settings. Develops an understanding of HRD principles and practices and how they benefit the individual and organization.

HRD 307 - Presentation and Facilitation (4)
Provides the knowledge and skills to facilitate and deliver professional presentations in various HRD and training settings. Focuses on the communications process, the analysis of the audience, the research and preparation of content, the selection of appropriate support materials, and the delivery or facilitation of professional presentations and meetings. Satisfies the university general education requirement in the knowledge applications integration area.
Prerequisite(s): completion of the general education requirement for a writing intensive course in general education or the social science knowledge exploration area.

HRD 308 - Principles of Leadership (4)
This course focuses on the major leadership theories and their application in a wide variety of settings. Includes opportunities for students to evaluate and enhance their own leadership potential.

HRD 309 – Human Resource Information Systems (4)
This course examines concepts, strategies, and applications of technology for Human Resource Development. Students explore tasks such as job analysis, needs analysis, and hands-on experience with HRIS. Course content will provide the familiarity and confidence needed for the effective application of HRIS in organizational settings.
Prerequisite(s): HRD 306.

HRD 310 - Instructional Design (4)
Introduces the application of systematic instructional design principles to the design of instruction. Critically examines the components of an instructional design model and applies its principles to the design of instruction.
Prerequisite(s): WRT 160 or equivalent.

HRD 320 - Introduction to Labor and Employment Relations (4)
Studies principles of both private and public sector labor relations. Includes discussions of the rights and responsibilities of all parties and traces labor relations through its origins and basic principles to current volatile issues and developing trends.

HRD 321 - Introduction to Public Sector Labor and Employment Relations (4)
Studies principles of public sector labor relations. Concentrates on public employment relations in Michigan, and includes discussions of the rights and responsibilities of all parties and traces labor relations through its origins and basic principles to current volatile issues and developing trends.

HRD 322 - The Study of Labor and Work Organizations (4)
An in-depth study of employment systems and relationships, and employee organizations.

HRD 323 - Negotiation for Personal Success (4)
This course integrates the intellectual analysis of negotiation theory with the development of negotiation skills. The course focuses on two core approaches to negotiation, the psychological sub-processes of negotiation and the strategies that can be used by the parties to resolve breakdowns in the negotiation process. Satisfies the university general education requirement in the knowledge application integration area. Prerequisite for knowledge application: completion of the general education requirement in the social science knowledge exploration area.

HRD 324 - Work and the Law (4)
A guide to the basic common law rights and responsibilities directly related to employment, as well as policies and procedures under the National Labor Relations Act. Includes a study of the principles used in employment related alternative dispute systems. Identical with SOC 324.

HRD 326 - Collective Bargaining and Dispute Resolution (4)
In-depth study of the principles and practices of private and public sectors collective bargaining and dispute resolution including strategic planning and preparation, position formulation, negotiation techniques, and agreement/ratification processes. Exploration of employment dispute resolution through observation of formal arbitration presentations, decision-making exercises, and active participation in formal arbitration presentations.

HRD 327 - Employee Benefits (4)
Introduction to employee benefits includes planning and administration of programs in changing employment and social contexts. Includes legally required and discretionary offerings such as Social Security, Workers' and Unemployment Compensation, health, disability and life insurance, retirement, pay for time not worked, leaves, flextime, and others as well as benefit costing.

HRD 328 - Civil Rights and Regulations in Employment (4)
Study of the principles, regulations, policies and procedures of federal and state Civil Rights laws. Additional study includes Age Discrimination in Employment Act, Americans with Disabilities Act, Family Medical Leave Act, Pregnancy Discrimination Act, and related principles of civil rights and employment regulations.

HRD 351 - Fundamentals of Human Interaction (4)
Introduces key aspects of interpersonal relationships, such as self-disclosure, feedback, conflict, trust and nonverbal communication. Examines various theories of healthy relationships and personal maturity. Self-appraisal, role plays, simulations and group interaction are used. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge application integration: completion of the general education requirement for a writing intensive course in general education or in the social science knowledge exploration area.

HRD 363 - Group/Team Development and Leadership (4)
Studies the use of small group and team-based structures to enhance quality and performance in the workplace. Topics include team development, leadership, group norms and goals, resolving group conflicts, group problem solving and decision making models, and group assessments.
Prerequisite(s): WRT 160 or equivalent.

HRD 364 - Career Development (4)
Studies of career development theory, practices and resources in the workplace. Topics include development and implementation of career development programs, career materials and resources, trends and placement activities in working with individuals and organizations.
Prerequisite(s): WRT 160 or equivalent.

HRD 367 - Cultural Diversity in the Workplace (4)
Identifies relevant culture-specific issues related to race, gender, ethnicity, socioeconomic status, sexual orientation, disabilities and religion. Examines historical context of culture-specific issues (knowledge). Facilitates awareness of values and their significance in helping relationships (self-awareness). Presents an ecological framework for developing effective practices (skills). Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): WRT 160.

HRD 372 - Staffing, Performance Evaluation and Interaction within Organizations (4)
Examines the strategic placement of HRD within an organization as well as the theories and practices of professional human resource development in the areas of staffing, setting performance standards and evaluating performance.

HRD 390 - Independent Study in HRD (2 or 4)
Directed reading or research in an HRD topic. May be elected for independent study. Student selects topic, obtains faculty sponsor's permission before registration and writes report. May be taken, with special permission, more than once for 8 credits total.
Prerequisite(s): permission of a faculty sponsor by application to department.

HRD 395 - Lean Green Belt Certificate (2)
This course is taken in conjunction with the HRD 304, HRD 404 or POM 480. Students who achieve a 3.0 or greater GPA in one of these courses and successfully complete the required field experiences, case analyses and assessments will earn a Lean Green Belt Certificate of Completion.

HRD 401 - Change Process and Organizational Analysis (4)
Study of structure of HRD services in organizations and the processes of effecting individual and group change. Influence of assigned roles of administrators and workers on attitude and behavior. Theory and research of institutional growth and change.
Prerequisite(s): HRD 306.

HRD 402 - Program Evaluation (4)
Provides knowledge and skills to design and conduct program evaluations. Develops skills in basic data collection, data analysis, and reporting of results.

HRD 404 - Lean Kaizen in Organizations (4)
This course provides students with a comprehensive "learn-do" experience about how successful Lean Kaizens are conducted. The six focus areas are: Lean Philosophy, Lean Tools & Techniques, Teambuilding, Kaizen Methodology, Organization Change and Presentation & Facilitation. Students will participate on a kaizen team and work on a dysfunctional real-world process. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the social science knowledge exploration area.

HRD 423 - Instructional Methods (4)
Provides knowledge and skills in the development of instructional materials for adults. Explores the application of theories of message design, communication, and learning to the development of instruction.
Prerequisite(s): HRD 310.

HRD 440 - Strategic Planning (4)
Development of long-range plans to accomplish the training and development mission. Simulation, group problem solving and preferred future planning used to acquire strategic planning skills.
Prerequisite(s): senior standing.

HRD 467 – Workshop (2 or 4)
Opportunity for industry/agency personnel and students to focus on various programs and practices. Offered as needed to meet needs of agency or industry employers and training directors. May be taken more than once for 8 credits total.
Prerequisite(s): course work or experience in the workshop topic.

HRD 469 - Seminar in HRD (4)
Scope is predefined and based on a broad topic in the HRD field. Students select research areas and contribute their findings to the class. Visiting consultants and the instructor provide direction and content. May be taken more than once for a total of eight credits.
Prerequisite(s): course work or experience in the seminar topic.

HRD 472 – E-Learning in Organizations (4)
This course examines concepts, strategies, and applications of computer-based instruction. Students explore e-learning design and development, popular authoring tools, roles of instructors and learners, and characteristics of effective instructional materials. Course content will provide familiarity and confidence needed for the effective application of e-learning. Prerequisite(s): HRD 310 and HRD 423.

HRD 499 - Internship in HRD (8)
A culminating experience where students apply learning in a supervised HRD setting. Students must submit applications to the internship coordinator by designated dates on the internship application approximately three months prior to the semester in which the internship will be served. May be repeated only with department permission. Replaces HRD 490. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): full admission to major standing; completion of 100 credits (minimum); an overall GPA of 2.50 or better; completion of the following courses with a minimum grade of 2.8 in each (core) HRD 303, HRD 306, HRD 309, HRD 310, HRD 324, HRD 363, HRD 367, and HRD 372, (focus area) HRD 320, HRD 364, HRD 401 and HRD 423; permission of internship coordinator by application to department.

Department of Reading and Language Arts

490A Pawley Hall (248) 370-3054
Fax: (248) 370-4367
Department Website: oakland.edu/rla/

Chairperson: *John E. McEneaney*

Professors emeriti: *Richard F. Barron, Jane Bingham, Gloria T. Blatt, Harald C. Cafone, Robert J. Christina, George E.Coon, W. Dorsey Hammond, Harry T. Hahn, Toni Walters*

Distinguished professor: *Ronald L. Cramer*

Professors: *John E. McEneaney, Linda Pavonetti*

Associate professors: *Tanya M. Christ, James F. Cipielewski, S. Rebecca Leigh, Ledong Li, Mary K. Lose, Gwendolyn M. McMillon, Anne E. Porter*

Assistant professors: *Bong Gee Jang*

Visiting assistant professor: *Lizabeth Guzniczak, Sue Ann Sharma*

As a department within the School of Education and Human Services, the instructional staff of the Reading and Language Arts Department offers courses in reading, language arts, digital literacies and learning and children's literature at the undergraduate level for students pursuing a career in teaching. For detailed information and the requirements of an Elementary Education Bachelor of Science degree with a major (36 credits) or minor (24 credits) in Language Arts, please go to the on-line academic catalog: (http://catalog.oakland.edu/index.php) The department offers a master's degree program in reading and language arts, certificate programs in digital literacies and learning, post-master's certificate programs, K-12 reading specialist endorsements, and a doctor of philosophy degree in reading education.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

INSTRUCTIONAL SYSTEMS TECHNOLOGY

DLL 396 - Digital Technologies in the Elementary Classroom (4)
Students will develop understanding and skills in the integration of digital technologies to support teaching and learning at the elementary level DLL 396 is equivalent to IST 396.

DLL 397 - Digital Technologies in the Secondary Classroom (4)
Students will develop understanding and skills in the integration of digital technologies to support teaching and learning at the secondary level. DLL 397 is equivalent to IST 397.

DLL 399 - Secondary Education- Uses of Computers and Related Technologies (4)
A general computer literacy course designed with focus on educational applications to enable secondary education students to utilize computers and related technologies for career and personal goals. This course is a requirement of secondary education majors for the computer science minor. DLL 399 is equivalent to IST 399.
Prerequisite(s): 12 credits in Computer Science.

DLL 464 - Applying Digital Technologies to Issues of Practice (4)
Students learn how to facilitate application of digital technologies to issues of practices from organizational development and change perspective. DLL 464 is equivalent to IST 464.
Prerequisite(s): DLL 396 or DLL 397.

DLL 490 - Independent Study in Digital Literacies and Learning (2 or 4)
Students pursue a digital literacies topic of interest to independently study under instructor guidance. A written proposal is prepared and must be approved by faculty sponsor. DLL 490 is equivalent to IST 490.
Prerequisite(s): DLL 396 or DLL 397.

DLL 499 - Final Project in Digital Literacies and Learning (4)
Students formulate a project in an area of digital literacies interest to study independently under instructor guidance. A written proposal is prepared and must be approved by faculty sponsor. DLL 499 is equivalent to IST 499.
Prerequisite(s): DLL 396 or DLL 397.

READING

RDG 331 - Teaching of Reading (4)
Basic course in the teaching of reading in the elementary and middle grades. Content includes strategies for teaching comprehension, phonics, emerging literacy, methods of reading instruction, and other pertinent issues. Includes a required field experience.
Prerequisite(s): EED 354.

RDG 332 - Literature for Children (4)
Focuses on the critical evaluation of children's literature, understanding its history, assessing children's needs and developmental levels, and selecting and using quality literature with children.
Prerequisite(s): WRT 160 or equivalent.

RDG 333 - Teaching the Language Arts (4)
Preparation for teaching language arts in elementary arts in elementary and middle grades. Content includes oral language development, listening, writing, spelling and the reading-writing connection. Includes a required field experience.
Prerequisite(s): EED 354.

RDG 334 - Teaching Writing in the Elementary and Secondary School (4)
Basic course in teaching the writing process. Students participate in writing workshops, discuss instructional issues and methods, and experience writing through personal engagement in the writing process.
Prerequisite(s): WRT 160.

RDG 338 - Teaching Reading in the Content Areas (4)
Designed for content subject learning in the secondary classroom. Focuses on the reading process, strategies and materials for teaching reading in English, social studies and other subjects. Includes a required field experience.
Prerequisite(s): admission to secondary education program or permission of instructor.

RDG 414 - Reading Appraisal in the Elementary Classroom (4)
Focuses on the assessment of reading. Uses formal and informal assessment instruments. Students learn to use assessment data to develop instructional programs. Specifically involves reading instruction with pupils and involvement with school personnel. Includes a required field experience.
Prerequisite(s): RDG 331, RDG 333.

RDG 490 - Independent Study and Research (2 or 4)
Directed individual reading research. May be repeated 2 times for a maximum of 8 credits. Departmental permission required. Students must obtain written faculty agreement to supervise their study before permission is granted.
Prerequisite(s): RDG 331, RDG 333.

Department of Teacher Development and Educational Studies

485B Pawley Hall (248) 370-2613
Fax: (248) 370-2639
Department Website: oakland.edu/sehs/tdes

Chairperson: *Robert Wiggins*

Professors *emeriti:* *James W. Hughes, M. Sharon P. Muir*

Professors: *Dyanne M. Tracy, Mary T. Stein, Robert Wiggins*

Associate professors: *Karen Bolak,Timothy Larrabee, Ji-Eun Lee, Michael MacDonald, Mark Olson, Carolyn O'Mahony, Emery Petchauer, Richard C. Pipan*

Assistant professors: *Anica Bowe, Anthony Frances, Paul Weinburg*

Visiting assistant professor: *Terri Jongekriig*

Special instructor: *Linda Tyson*

General Information

The Department of Teacher Development and Educational Studies offers programs designed to prepare students for careers in elementary and secondary school teaching. Both programs are approved by the Council for the Accreditation of Education Preparation (CAEP) and the Michigan Department of Education.

In conjunction with the Departments of Human Development and Child Studies and Reading and Language Arts, the Department of Teacher Development and Educational Studies offers programs enabling students to concurrently earn a Bachelor of Science degree from Oakland University and recommendation for a Michigan elementary provisional certificate (see Michigan Teacher Certification).

The Department offers a fifth-year program that prepares students majoring in selected academic fields in the College of Arts and Sciences for recommendation for a Michigan secondary provisional certificate. Students interested in secondary education programs should consult the College of Arts and Sciences section of the catalog.

Students who already hold a four-year degree from an accredited college or university will complete the Bachelor degree requirements, excluding the general education requirements.

Admission to the Major

Meeting the minimum requirements does not guarantee admission to the major. Qualitative criteria may be required as well. The program seeks students who are committed to teaching in diverse schools or districts. Underrepresented students are especially encouraged to apply.

Minimum criteria for admission to the major are:

1. Passing the Michigan Test for Teacher Certification (MTTC) Professional Readiness Exam (PRE). Please note: students must request that MTTC send the student's scores to OU.
2. Completion of 12 credits of General Education coursework with a 2.0 minimum grade (or "C") in each course.
3. A minimum of 70 documented clock hours experience working with children in noncustodial activities, 50 hours within the last three years and 20 hours during the calendar year prior to application. Field experience in EED 312 / EED 313 does not meet this requirement.
   Examples of activities and documentation forms are available on the website (oakland.edu/sehs/advising).
4. Minimum grade of 3.0 (or "B") inEED 312 /EED 313 . (New transfer students who have taken an approved "Introduction to Education" course at their previous institution as well as first-year undergraduates who have participated in an approved teacher cadet program with which OU has an articulation agreement, may be approved to take EED 313 in lieu of EED 312. Previously enrolled OU students must take EED 312 at OU.
5. A cumulative grade point average (GPA) of at least 2.80.
6. Submission of a completed application to the SEHS Advising Office.

Advising

The SEHS Advising Office is located in 363 Pawley Hall, (248) 370-4182. Students are encouraged to meet with an academic adviser at least once per academic year. Academic advisers assist with schedule planning, interpreting degree requirements, admission to major standing, transfer credits, state testing requirements, certification information and graduation audits.

Professional Program

Upon being admitted to the elementary education program, students are expected to maintain continuous enrollment during the fall and winter semesters in at least one (1) and no more than four (4) professional education courses. Any waiver to this policy must be approved by the Elementary Education Petition of Exception Committee before the semester for which the waiver is requested. Students must follow the required sequence of courses provided at the time of admission to major. Prerequisites are required for some professional education courses. See course offerings for prerequisites and corequisites. All General Education and Professional Education courses must be completed prior to student teaching.

Retention in the SEHS Professional Education Programs

Retention in the SEHS professional education programs is based on the expectation that students will demonstrate the characteristics of and conduct themselves as members of the profession as described in the Expected Competencies. Students may be removed from a program, removed from a field placement, or may not be recommended for certification for: (i) failure to fulfill any such expectations to Oakland University's satisfaction, including, without limitation, the expectation that they demonstrate adequate and appropriate communication ability and character, and develop, maintain and fulfill their professional relationships, responsibilities and competencies: (ii) academic misconduct; (iii) violations of the Michigan Code of Ethics for Teachers; (iv) failure to fulfill any Oakland University academic or conduct requirements; or (v) violations of any other program or Oakland University's policies, rules, regulations or ordinances.

Students may also be removed from field placements: (i) upon request of a building administrator; (ii) for a failure to comply with the requirements of this Competency and Retention Statement; (iii) if Oakland University determines that removal is in the best interests of the student, Oakland University, the professional education programs, or the schools where the student is placed; (iv) inadequate planning, classroom management, and/or discipline; (v) lack of content knowledge; (vi) deficiency in oral or written communication skills; (vii) inappropriate personal or professional behavior; (viii) ethical impropriety; (ix) violation(s) of community standards or policies; or (x) failure to exercise appropriate, professional judgments.

Field placements: Participation in field placements is required during EED 312 /EED 313 and each semester during which students enroll in a professional education class. The Office of School and Field Services arranges placements that ensure a variety of experiences, including placement in culturally and economically diverse school districts. Students may be required to be fingerprinted and have a state police and FBI background check, at their expense, before beginning a field placement depending on school district requirements.

Internship: EED 455 must be taken in the final semester of the degree program.

Application for the internship, EED 455, must be made one full academic year in advance of the intended enrollment. Students must check the web page for the date of the required orientation meeting (held in the fall semester for both fall and winter student teacher applicants) at the time that application is made. Admission criteria for the internship are: a) satisfactory grade point average and minimum required grades; b) completion of all professional education course-work and field placements; c) completion of all required course work for the teaching major and/or minors; and d) students placed in K-5 classrooms must have passed the MTTC (Michigan Test for Teacher Certification) Elementary Education test (103); students placed in a middle school must have passed the MTTC Elementary Education test (103) and the MTTC Endorsement tests for their major and/or minors prior to beginning the internship semester. Students will be required to be fingerprinted and have a state police and FBI background check at their own expense. EED 455 may not be repeated.

Students must obtain an approved petition from the Petition of Exception Committee to enroll in more than 12 credits during the internship semester. A minimum grade of 2.0 in EED 455 is required for graduation and a minimum grade of 2.8 for recommendation for certification. Students who do not earn the minimum grade for certification can earn a B.S. without certification with an approved petition of exception.

Michigan Teacher Certification

To be recommended for a provisional elementary certificate, elementary education majors must successfully complete requirements for the B.S., complete all courses as listed in either Option 1 or Option 2, earn a minimum grade of 2.8 in EED 455, successfully pass the elementary education MTTC #103 exam, and successfully pass at least one subject area MTTC exam that corresponds to their chosen content area(s). The State also requires a certificate in first aid and adult/child CPR before certification may be recommended. Successful completion of our program and internship does not guarantee certification by the State of Michigan.

Applicants should be aware that a conviction for a felony or misdemeanor may constitute grounds for denial of a certificate by the State of Michigan. (See complete policy on the School and Field Services web site.)

Teaching Certification for Elementary Education Option 1: The Michigan Elementary Provisional Certificate is valid for teaching all subjects in grades K-5, all subjects in self-contained classrooms for grades 6-8 in which one teacher provides a majority of the instruction, and in teaching majors and minors in departmentalized programs for grades 6-8.

Teaching Certification for Elementary Education Option 2: The Michigan Elementary Provisional Certificate is valid for teaching all subjects in grades K-5 and all subjects in self-contained classrooms for grades 6-8 in which one teacher provides a majority of the instruction.

Students who complete the ESL endorsement in Option 1 or Option 2 earn K-12 certification in this content area.

Requirements for the Bachelor of Science degree with a major in Elementary Education

Advising: 363 Pawley Hall, (248) 370-4182
Internet: oakland.edu/sehs/advising

Pre-elementary education

Students who wish to pursue an elementary education major are admitted by the Admissions Office and given pre-elementary education status. Students who hold a baccalaureate degree in another discipline seeking a second undergraduate degree must meet the undergraduate degree program requirements, excluding general education. After admission, students meet with Academic Advisers in the SEHS Advising Office, 363 Pawley Hall, (248) 370-4182, for course selection.

Pre-elementary education students may only register for the following categories of coursework: Math (MTH 061, MTH 062, MTE 210), Writing (WRT 102, WRT 150, WRT 160), General Education, Major/Minor endorsement area courses, EED 312/EED 313, SCS 105 and the 20-credit planned program (Option 1 track) or the comprehensive major (Option 2 track).

Program requirements

Oakland University offers two options for elementary education program completion. Admission to the major in either option is required before beginning the professional sequence. Elementary education students plan their course work with an adviser in the SEHS Advising Office. Students using this catalog to meet major requirements may also use any course subsequently approved as satisfying requirements and published in a later catalog.

To earn the BS degree - Option 1- students must:

1. Complete 132-159 credits, depending on the student's core content area major or minor areas of concentration. At least 32 credits, including the last eight, must be taken at Oakland University and at least 32 credits must be at the 300-level or above. Education credits may not be older than six years upon completion of the program. Courses transferred from TEAC and NCATE-accredited colleges may be approved towards this major.
2. Meet university general education requirements.
3. Complete one teaching major or two teaching minors (from the core content areas described below) with a minimum grade of 2.5 (or "B-") in each course.
4. Complete a 20-credit planned program consisting of EED 316, EED 406, EED 410, MTD 301, and three additional core content area courses that are not in the student's one teaching major or two minors.
5. Complete pre-professional and professional course work with a minimum grade of 2.8 in each course, unless otherwise noted, and a minimum grade of 2.0 in EED 455 (2.8 required for recommendation for teaching certification). Pre-professional courses: MTE 210 (2.0 or "C"), MTE 211 (2.0 or "C"), EED 312/EED 313 (3.0 or "B"), SCS 105 . Professional courses: EED 354, EED 420, FE 406 , EED 316, DLL 396, MTD 301, SE 401, RDG 331, RDG 333, EED 302, EED 305, EED 406, EED 410, EED 470, and RDG 414 . Students with a major or minor in a modern language must also take EED 428 .
6. Earn a minimum grade of 2.0 (or "C") in each general education course and maintain a cumulative GPA of 2.80 or better .
7. Be in compliance with all legal curricular requirements for Michigan certification.

General education

Some general education courses fulfill major/minor and 20-credit planned program requirements. Students should consult their adviser before selecting courses.

Core content area majors/minors

In keeping with state requirements, one teaching major or two teaching minors selected from the following are required for Option 1 track certification. A teaching major/minor identifies subjects that a graduate is certified to teach in grades 6-8. Coursework is limited to the classes listed and those on the approved list available in the advising office. Students must earn a minimum grade of 2.5 in each teaching major/minor course. Courses transferred from institutions that assign letter grades must have a minimum grade of B- to be accepted. Course exemption granted based on Advanced Placement credit may substitute for major/minor course-work when applicable. This list may change to reflect changes in state-approved major and minor programs, transfer courses may be reviewed by advisers to determine if content meets the endorsement standards.

Language arts teaching minor -- 24 credits

ENG (choose one (1) course from the list of approved Literature General Education courses),

- RDG 332 - Literature For Children (4)
- ALS 176 - The Humanity of Language (4)
- RDG 331 - Teaching Of Reading (4)
- RDG 333 - Teaching the Language Arts (4)
- RDG 414 - Reading Appraisal in the Elementary Classroom (4)
- Students in the Honors College may use HC 202 in place of the ENG requirement.

Language arts teaching major -- 36 credits

Meet requirements of the language arts minor plus 12 additional credits selected with at least one course from Writing Component:

- RDG 334 - Teaching Writing in the Elementary and Secondary School (4)
- ENG 215 - Fundamentals of Grammar (4)
- ENG 380 - Advanced Critical Writing (4)
- ENG 383 - Workshop in Fiction (4)
- WRT 386 - Workshop in Creative Non-Fiction (4)
- JRN 200 - Introduction to Journalism and News Writing (4)
- JRN 312 - Feature Writing (4)
- WRT 320 - Writing Center Studies (4)
- WRT 360 - Global Rhetorics (4)
- WRT 364 - Writing About Culture: Ethnography (4)

one course from Oral Language Component:

- COM 201 - Public Speaking (4)
- COM 202 - Group Dynamics and Communication (4)
- COM 303 - Relational Communication Theory (4)
- COM 305 - Relational Communication (4)
- COM 307 - Performance Communication (4)
- COM 360 - Listening in Communication (2)
- THA 100 - Introduction to Theatre (4)
- THA 104 - Acting for Non-Theatre Majors (2)
- THA 211 - Stage Movement (2)
- THA 330 - Stage Management (2)

and one course from the combination of the two or one of the following:

- ALS 334 - Language Development in Children (4)
- ALS 335 - Psycholinguistics (4)
- ALS 374 - Cross-Cultural Communication (4)
- ALS 375 - Language and Culture (4)
- ALS 376 - Language and Society (4)

- DLL 464 - Applying Digital Technologies to Issues of Practice (4)
- LIN 201 - Introduction to Linguistics (4)
- RDG 490 - Independent Study and Research (2 OR 4)

Mathematics teaching minor -- 20 credits

- MTE 210 - Mathematics for Elementary Education I (4)
- MTE 211 - Mathematics for Elementary Education II (4)
- MTE 410 - Elementary School Mathematics and the Computer (4)
- MTH 141 - Precalculus (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

Students who test out of MTH 141 must elect one additional course from

- MTH 118 - Mathematical Sciences in the Modern World (4)
- MTH 122 - Calculus for the Social Sciences (4)
- MTH 154 - Calculus I (4)

Mathematics teaching major -- 30 credits

Meet requirements of the mathematics minor plus at least 10 credits from

- MTH 118 - Mathematical Sciences in the Modern World (4)
- MTH 122 - Calculus for the Social Sciences (4)
- MTH 154 - Calculus I (4)
- CSE 130 - Introduction to Computer Programming (4)
- MTE 405 - Special Topics (2 or 4)

Modern languages teaching minor -- 20 credits — All credits must be at the 300-400 level

In addition, EED 428 - Foreign Language Teaching Methods in Elementary and Middle School, is required.

In Chinese

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)
- CHE 351 - Chinese Civilization (4)
- CHE 355 - Translation: Chinese (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)
- plus 4 credits elective at the 300-400 level

In Japanese

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- plus 4 credits elective at the 300-400 level

In French

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- plus 4 credits elective at the 300-400 level

In Spanish

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- plus 4 credits elective at the 300-400 level

In German

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 440 - German Culture II (4)
- GRM 371 - Introduction to the Study of German Literature (4)
- plus 4 credits elective at the 300-400 level

Modern languages teaching major -- 32 credits - All credits must be at the 300-400 level

In addition EED 428 – Foreign Language Teaching Methods in Elementary and Middle School is required.

In Japanese

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- JPN 408 - Advanced Japanese Conversation and Reading (4)
- IS 220 - Perspectives on Japan (4)
- plus 8 credits elective at the 300-400 level

In French

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- FRH 380 - Survey of French Literature (4)
- plus 12 credits elective at the 300-400 level

In Spanish

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 370 - Introduction to Spanish Literature (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- IS 250 - Perspectives on Latin America (4)
- plus 8 credits elective at the 300-400 level

In German

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)

- GRM 381 - Great Works in German Literature (4)
- GRM 440 - German Culture II (4)
- plus 12 credits elective at the 300-400 level

Integrated science teaching minor -- 28 credits

- SCS 105 - Science for the Elementary Teacher (4)
- SCI 100 - Physical Sciences in Life, the World and Beyond (4)
- BIO 104 - Human Biology (4) (or BIO 121 or BIO 205 and 207)
- BIO 300 - Biology and Society (4) (or BIO 111 or BIO 113)
- CHM 104 - Introduction to Chemical Principles (4) (or CHM 157)
- PHY 104 - Astronomy: The Solar System (4)
- PHY 106 - Earth Science/Physical Geography (4)
- PHY 108 - Principles of Physics I (4) (or PHY 101 /PHY 110, or PHY 161, or PHY 151/PHY 110)

Integrated science teaching major -- 36 credits

Meet requirements of the integrated science minor plus four credits from:

- PHY 104 - Astronomy: The Solar System (4) or
- PHY 106 - Earth Science/Physical Geography (4)

and four credits of electives selected from

- BIO 111 - Biology I (4)
- CHM 300 - Chemistry, Society Health (4) (or CHM 167)
- SCS 306 - Environmental/Outdoor Education for Elementary/Middle School Levels (4)
- PHY 109 - Principles of Physics II (4) (or PHY 102 /PHY 111, or PHY 162, or PHY 151/PHY 111)
- PHY 120 - The Physics of Everyday Life (4)

Social studies teaching major -- 36 credits

- HST 114 - Introduction to American History Before 1877 (4)
- HST 115 - Introduction to American History Since 1877 (4)
- ECN 200 - Principles of Macroeconomics (4) or ECN 202 Principles of Global Macroeconomics (4)
- ECN 201 - Principles of Microeconomics (4)
- GEO 200 - Global Human Systems (4)
- GEO 106 - Earth Science/Physical Geography (4)
- PS 100 - Introduction to American Politics (4)

Plus one additional PS course selected from

- PS 131 - Comparative Politics (4)
- PS 114 - Issues in World Politics (4)
- PS 314 - International Politics: Theory and Practice (4)
- PS 329 - European Political Systems (4)
- and SST 200 and SST 490 (4)

If additional elective credits are needed, they should be selected from either the list of approved courses detailed above or

- HST 102 - Introduction to European History Since 1715 (4) (or HST 101) or
- HST 321 - History of American Foreign Relations in the Twentieth Century (4)

In addition to their one core content area major or two minors

Students pursuing the Option 1 track may select an additional optional endorsement from the following areas:

Dance teaching minor - 29 credits

Audition required in the Department of Music, Theatre and Dance (call 248-370-2030). For course requirements, please see the Dance section of the catalog.

Early Childhood Education - 30 credits

3.0 grade or "B" minimum in each course

- EC 320 (4)
- EC 322 (4)
- EC 324 (4)
- EC 326 (4)
- EC 328 (4)
- EC 330 (4)
- EC 332 (4)
- EC 333 (3)

English as a Second Language - 20 credits

- LIN 201 - Introduction to Linguistics (4)
- ALS 317 - Models of Second Language Acquisition (4)
- ALS 375 - Language and Culture (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)
- ALS 438 - Theory and Practice in Language Testing (4)

To earn the BS degree - Option 2- students must:

1. Complete 159-162 credits depending on the student's chosen core content area endorsement. At least 32 credits, including the last eight, must be taken at Oakland University and at least 32 credits must be at the 300-level or above. Education credits may not be older than six years upon completion of the program. Courses transferred from CAEP-accredited colleges or universities may be approved.
2. Meet university general education requirements.
3. Complete one content area endorsement from Early Childhood Education, English as a Second Language, or Modern Languages with a minimum grade of 2.5 (or "B-") in each course unless otherwise noted.
4. Complete a 45-credit (minimum) comprehensive major consisting of SCS 105 (2.8 minimum), SCI 100 (2.5 or "B-" minimum), MTE 210 (2.0 or "C" minimum), MTE 211 (2.0 or "C" minimum), HST 114 or HST 115 (2.5 or "B-" minimum), GEO 106 or GEO 200 (2.5 or "B-" minimum), SST 200 (2.8 minimum), ENG - General Education Literature course ((2.5 or "B-" minimum), RDG 334 (2.5 or "B-" minimum), RDG 332 (2.5 or "B-" minimum), ALS 176 (2.5 or "B-" minimum), EED 316 (2.8 minimum), MTD 301 (2.8 minimum), EED 406 (2.8 minimum), and EED 410 (2.8 minimum).
5. Complete pre-professional and professional course work with a minimum grade of 2.8 in each course unless otherwise noted and a minimum grade of 2.0 in EED 455 (2.8 required for recommendation for teaching certification). Pre-professional courses: MTE 210 (2.0 or "C"), EED 312 /EED 313 (3.0 or "B"), SCS 105. Professional courses: EED 354, EED 420,FE 406, EED 316, DLL 396, MTD 301, SE 401, RDG 331, RDG 333, EED 302, EED 305, EED 406, EED 410, EED 470, and RDG 414. Students with a major or minor in modern languages must also take EED 428.
6. Earn a minimum grade of 2.0 (or "C") in each general education course and maintain a cumulative GPA of 2.80 or better.
7. Be in compliance with all legal curricular requirements for Michigan certification.

General education

Some general education courses fulfill major/minor and 45-credit comprehensive major requirements. Students should consult their adviser before selecting courses.

Content area endorsements

In keeping with state requirements, one content area endorsement selected from Early Childhood Education, English as a Second Language (ESL), or Modern Languages is required for Option 2 track certification. Students who complete this track earn all subjects K-5 self-contained classroom certification only, with the exception of ESL, which is a K-12 endorsement. Coursework is limited to the classes listed and those on the approved list available in the advising office. Students must earn a minimum grade of 2.5 in each content area course unless otherwise noted. Courses transferred from institutions that assign letter grades must have a minimum grade of B- to be accepted. (Oakland University courses taken prior to the fall 2001 semester will be accepted with a 2.0 or "C" grade.) Course exemption granted based on Advanced Placement credit may substitute for major/minor course-work when applicable. This list may change reflecting changes in state approved major and minor programs.

Early Childhood Education - 30 credits

3.0 grade or "B" minimum in each course:

- EC 320 (4)
- EC 322 (4)
- EC 324 (4)
- EC 326 (4)
- EC 328 (4)
- EC 330 (4)
- EC 332 (3)
- EC 333 (3)

English as a Second Language - 20 credits

All courses require a 2.5 grade or “B-” minimum.

- LIN 201 - Introduction to Linguistics (4)
- ALS 317 - Models of Second Language Acquisition (4)
- ALS 375 - Language and Culture (4)
- ALS 418 - The Teaching of English as a Second Language (4)
- ALS 419 - Practicum (4)
- ALS 438 - Theory and Practice in Language Testing (4)

Modern languages teaching minor - 20 credits. All credits must be at the 300-400 level

In addition, EED 428 - Foreign Language Teaching Methods in Elementary and Middle School, is required.

Chinese

- CHE 314 - Advanced Chinese Grammar (4)
- CHE 316 - Chinese Conversation (2)
- CHE 318 - Chinese Composition (2)
- CHE 351 - Chinese Civilization (4)
- CHE 355 - Translation: Chinese (4)
- CHE 408 - Advanced Chinese Conversation and Reading (4)
- plus 4 credits elective at the 300-400 level

French

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- plus 4 credits elective

German

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 440 - German Culture II (4)
- plus 4 credits elective at the 300-400 level

Japanese

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- plus 4 credits elective at the 300-400 level

Spanish

- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
- plus 4 credits elective at the 300-400 level

Modern languages teaching major - 32 credits. All credits must be at the 300-400 level.

In addition EED 428 - Foreign Language Teaching Methods in Elementary and Middle School, is required.

French

- FRH 314 - French Grammar Review (4)
- FRH 316 - French Conversation (2)
- FRH 318 - French Composition (2)
- FRH 351 - French Civilization (4)
- FRH 370 - Introduction to French Literature (4)
- FRH 380 - Survey of French Literature (4)
- plus 12 credits elective at the 300-400 level

German

- GRM 314 - Adv GRM Grammar/Texts/Contexts (4)
- GRM 316 - German Conversation (2)
- GRM 318 - German Composition (2)
- GRM 371 - Introduction to the Study of German Literature (4)
- GRM 381 - Great Works in German Literature (4)
- GRM 440 - German Culture II (4)
- plus 12 credits elective at the 300-400 level

Japanese

- JPN 314 - Advanced Japanese Grammar (4)
- JPN 316 - Japanese Conversation (2)
- JPN 318 - Japanese Composition (2)
- JPN 351 - Japanese Civilization (4)
- JPN 370 - Introduction to Japanese Literature (4)
- JPN 408 - Advanced Japanese Conversation and Reading (4)
- IS 220 - Perspectives on Japan (4)
- plus 8 credits elective at the 300-400 level

Spanish

- IS 250 - Perspectives on Latin America (4)
- SPN 314 - Spanish Grammar Review (4)
- SPN 316 - Spanish Conversation (2)
- SPN 318 - Spanish Composition (2)
- SPN 351 - Spanish Civilization (4)
- SPN 370 - Introduction to Spanish Literature (4)
- SPN 380 - Introduction to Spanish-American Literature (4)
  plus 8 credits elective at the 300-400 level

Secondary Education (OU STEP)

Advising: 363 Pawley Hall, (248) 370-4182
Internet: oakland.edu/sehs/advising

Program description

The School of Education and Human Services (SEHS) and the College of Arts and Sciences (CAS) offer a fifth-year secondary teacher education program (Oakland University STEP) leading to recommendation for Michigan secondary provisional teacher certification. This certification is valid for teaching content area majors and minors in grades 6-12, except art, foreign language, English as a second language, and music, which are valid for grades K-12. The major areas in which Oakland program participants may become certified to teach are: art, biology, chemistry, English, French, German, Japanese, Spanish, history, mathematics, music and physics. Students may also earn endorsements in Social Studies or Integrated Sciences. Students interested in music education need to contact the Department of Music, Theatre and Dance to learn about content-specific course and sequence requirements. Students interested in K-12 art education should see the requirements of the Department of Art and Art History included in the College of Arts and Sciences section of this catalog.
After completing the requirements for graduation in their major and minor teaching areas and preliminary professional education course work, students engage in an academic year-long internship in the public schools that includes both courses and field experiences, and fulfills requirements for certification. Art and Music majors complete a one-semester internship.

Program requirements

Both Oakland undergraduates and students who have completed undergraduate degrees from Oakland or other universities (second undergraduate degree candidates) may become eligible to enter OU STEP. Both groups must fulfill all Oakland requirements for a baccalaureate degree in an approved major (listed above) prior to beginning their internship year. In addition, they must complete a teaching minor in one of the following areas: biology, chemistry, dance, economics, English, history, mathematics, modern languages, physics, political science or sociology, unless they are completing an endorsement in social studies or integrated science. For details on specific major and minor course requirements and social studies and integrated science endorsements, consult the applicable College of Arts and Sciences departmental listings in this catalog.
The program also requires 36 credits of professional education coursework. Program coursework includes courses which are taken prior to the start of the internship year, and which may be taken while students are completing

their other degree requirements. A minimum overall GPA of 2.80 is required before students can begin the professional sequence.

Courses to be taken prior to application the STEP:

SED 300 - Introduction to Secondary Education (4) or SED 301 - Public Education for Prospective K-12 Teachers (4) (includes a 50-hour field assignment in the major in addition to course time.)
Overall GPA of at least 2.80 is required to enroll. May only be retaken once. A 3.0 minimum grade is required for STEP application. Must be completed no less than one semester before application to STEP.

DLL 397 - Digital Technologies in the Secondary Classroom (4)
(K-12 Art and Modern Language Students may elect DLL 396 instead.)

Courses to be taken prior to the internship year:

FE 406 - Educational Psychology for K-12 Educators (4) (includes a required field experience)

RDG 338 - Teaching Reading in the Content Areas (4) (includes a required field experience)

SED 427 - ST: Teaching Secondary in the Minor Methods (4) (includes a required field experience in minor) or
SED 426 - Teaching in Your Minor Field: Mathematics (4)
(includes a required field experience in minor) or
ENG 398 - Approaches to Teaching Literature and Composition (4) (English minors are required to complete a required
field experience in minor)

Additional professional course requirements for Modern Language majors:
EED 420 and EED 428.

Courses taken during the internship year (including required field experiences).

If concurrent with internship, the internship is the field experience. If not, then an additional field must be assigned:

SE 401 - Introduction to Students with Special Needs (4)
SED 428 - ST: Teaching Secondary of the Major Methods (4)
SED 455 - Internship in Secondary Education (12)

Undergraduates who will be receiving their degrees from Oakland may choose to graduate either before or after their internship year. Undergraduates who receive financial aid, particularly, will want to weigh the costs and benefits of graduation options. Second undergraduate degree candidates completing majors and or minors may be required to complete additional coursework at Oakland and to satisfy residency requirements. Students should consult with the CAS advisers in their content areas to plan degree completion. Education credits may not be older than six years upon completion of the program.

Program sequence

Undergraduates and second undergraduate degree candidates will typically take the education courses in the following sequence:
Junior year, fall or winter semester:
SED 300 /SED 301

Senior year, winter semester:
FE 406 SED 427, SED 426, or
ENG 398 (dependent upon the minor area of concentration);
and RDG 338

Internship (fall and winter semesters):
SED 428 - fall, SE 401 - fall
SED 455 - fall and winter

Modern Language K-12 sequence:

Junior year, fall or winter semester:
SED 300 /SED 301

Senior year, winter semester:
RDG 338; SED 427, SED 426 or
ENG 398 (dependent upon the minor area of concentration)

Senior year, summer 1 session:
EED 420 and FE 406

Senior year, summer 2 session:
SE 401

Internship (fall and winter semester):
EED 428 -fall, SED 428 -fall, SED 455 -fall and winter

Professional program

Retention in the program is based on student demonstration of the characteristics and conduct of members of the teaching profession.

Retention in the SEHS professional education programs

Retention in the SEHS professional education programs is based on the expectation that students will demonstrate the characteristics of and conduct themselves as members of, the profession as described in the Expected Competencies. Students may be removed from a program, removed from a field placement or may not be recommended for certification for the following reasons: (i) failure to fulfill any such expectations to Oakland University's satisfaction, including without limitation the expectation that they demonstrate adequate and appropriate communication ability and character and develop, maintain and fulfill their professional relationships, responsibilities and competencies: (ii) academic misconduct; (iii) violations of the Michigan Code of Ethics for Teachers; (iv) failure to fulfill any Oakland University academic or conduct requirements; or (v) violations of any other program or Oakland University's policies, rules, regulations or ordinances.
Students may also be removed from field placements: (i) upon request of a building administrator; (ii) for a failure to comply with the requirements of this Competency and Retention Statement; (iii) if Oakland University determines that removal is in the best interests of the student, Oakland University, the professional education programs or the schools where the student is placed; (iv) inadequate planning, classroom management, and/or discipline; (v) lack of content knowledge; (vi) deficiency in oral or written communication skills; (vii) inappropriate personal or professional behavior; (viii) ethical impropriety; (ix) violation(s) of community standards or policies; or (x) failure to exercise appropriate professional judgments.

Field experiences

SED 300 /SED 301; FE 406, SED 427, SED 426 or ENG 398, RDG 338; and SED 428, SE 401 and SED 455 require field experiences in the public schools, which must be arranged through the SEHS coordinator or director of field placement services, (248) 370-3060. Prior or current full- or part-time teaching will not satisfy this requirement. SED 300 /SED 301 requires 50 hours of field experience to be completed during the semester in which a student is enrolled. FE 406 and SED 427, SED 426 or ENG 398, and RDG 338 or the equivalent course requirement for the K-12 Foreign Language or the K-12 Art endorsement programs require 30 hours of field experience to be completed during the semester in which a student is enrolled. (Modern language majors will be required to complete a 30-hour field experience during the semesters they are enrolled inFE 406, FE 406, EED 420, and SE 401.) If professional courses are taken out of this sequence in the summer semester, an additional field will be required. Sustained experience in diverse settings is required. Students will have experiences in classrooms of their major and minor areas of certification. SED 455 requires daily attendance in the field during the entire internship year, including half-day participation at school for August through December, and full-day participation at school for January through April.

Students may be required to be fingerprinted and have a state police and FBI background check, at their expense, before beginning a field placement depending on school district requirements.

Applicant eligibility

Eligibility to apply to the OU STEP requires:

1.Completion of SED 300 /SED 301 and DLL 397 with a minimum grade of 3.0. These courses must be taken at least one semester prior to the semester of application to the program. Student must have documented successful completion of the 50-hour field requirement.

2.Minimum average GPA of 3.00 in both CAS major and minor.

3.A minimum overall GPA of 2.80.

4.A minimum grade of 3.0 in WRT 160 - Composition II (or an equivalent course as approved by the registrar's office or the Department of Writing and Rhetoric).

5.Passing scores on each of the three Professional Readiness Exam component of the Michigan Test for Teacher Certification (MTTC), (or equivalent). This is not required prior to admission to STEP but must be completed prior to student teaching.

Program admission

The process of admission is designed to identify and select a number of well-qualified applicants who demonstrate high potential for success in the teaching profession. This number is determined by the capacity of the university to provide quality teacher preparation within its resources.

Factors considered in the applicant selection process include GPA, written responses to a set of application questions, field evaluations, and letters of recommendation. Additional information or an interview may be requested to provide a more complete application profile. Second undergraduate degree applicants should note that admission to the OU STEP and to the university involve separate processes and should contact the undergraduate admissions office for information about admission to Oakland.

Internship and certification

To progress into the internship year, students admitted to the OU STEP must maintain a minimum GPA of 3.00 in their education coursework and in their major and minor course-work. In addition, no single education course grade may be below 2.8 and no major or minor course below 2.0. All major and minor coursework all professional coursework except SED 455, SED 428 and SE 401 must be satisfactorily completed before the internship begins. Modern Language coursework applicable here include SED 455, SED 428 and EED 428.) The program status of a student whose grades or GPA fall below these levels will be placed on hold until deficiencies are remedied. Students must pass the MTTC subject area test for each major and minor in which they plan to be certified. The state requires one major and one minor for certification.

Successful completion of both of these tests must be documented by August 15, prior to the beginning of the internship. Students will be required to be fingerprinted and have a state police and FBI background check at their own expense.

In addition, students must receive a minimum grade of 2.8 in SED 455 to be eligible for recommendation by Oakland University for Teacher certification. The State also requires a certificate in first aid and adult/child CPR before certification may be recommended.
Successful completion of the STEP program and internship does not guarantee certification by the State of Michigan. Applicants should be aware that a conviction for a felony or a misdemeanor may constitute grounds for denial of a teaching certificate by the State of Michigan. (See complete policy on the School and Field Services web site.)

Application deadline

Applications to the OU STEP are considered once per year. The deadline is October 1 of the year preceding the intended internship year. Applications received after that date may be considered pending review by advising office and space in the program. Applications are available on the secondary education web site: oakland.edu/sehs/advising/.

Course Offerings

The department offers selected courses from this catalog as warranted by student needs and the availability of faculty. Specific offerings for each term may be found on SAIL.
Descriptions of courses designated FE and SE appear under the Department of Human Development and Child Studies. RDG courses appear under the Department of Reading and Language Arts. Courses above the 400 level are described in the graduate catalog.

Retention in the SEHS professional education programs

Retention in the SEHS professional education programs is based on the expectation that students will demonstrate the characteristics of and conduct themselves as members of, the profession as described in the Expected Competencies. Students may be removed from a program, removed from a field placement or may not be recommended for certification: (i) if they fail to fulfill any such expectations to Oakland University's satisfaction, including without limitation the expectation that they demonstrate adequate and appropriate communication ability and character and develop, maintain and fulfill their professional relationships, responsibilities and competencies: (ii) academic misconduct; (iii) violations of the Michigan Code of Ethics for Teachers; (iv) failure to fulfill any Oakland University academic or conduct requirements; or (v) violations of any other program or Oakland University's policies, rules, regulations or ordinances.
Students may also be removed from field placements: (i) upon request of a building administrator; (ii) for a failure to comply with the requirements of this Competency and Retention Statement; (iii) if Oakland University determines that removal is in the best interests of the student, Oakland University, the professional education programs or the schools where the student is placed; (iv) inadequate planning, classroom management, and/or discipline; (v) lack of content knowledge; (vi) deficiency in oral or written communication skills; (vii) inappropriate personal or professional behavior; (viii) ethical impropriety; (ix) violation(s) or community standards or policies; of (x) failure to exercise appropriate; professional judgments.

Course Offerings

The department offers selected courses from this catalog as warranted by student needs and the availability of faculty. Specific offerings for each term may be found on SAIL.

Descriptions of courses designated FE and SE appear under the Department of Human Development and Child Studies. RDG courses appear under the Department of Reading and Language Arts. Courses above the 400 level are described in the graduate catalog.

ELEMENTARY EDUCATION

EED 101 - Careers in Teaching and Learning (1)
An introduction to programs and opportunities for students considering teaching as a career. Career information, professional pathways for teachers, diversity in education, and examination of the profession of teaching are major course topics. Successful course completion grants eligibility for enrollment in EED 313 or SED 301.

EED 302 - Teaching Mathematics at the Elementary-Middle Levels (4)
Assists prospective teachers in developing sound pedagogical strategies and instructional techniques for teaching mathematics in the elementary and middle school. Includes a required field experience. Prerequisite(s): EED 354 and MTE 210.

EED 305 - Teaching Science at the Elementary-Middle Levels (4)
Develops philosophies, rationale and methods for teaching elementary and middle school science. Explores knowledge and skills for planning instruction, using instructional models, integrating the curriculum, using current instructional materials and evaluating outcomes. Includes a required field experience and additional science teaching experience. Prerequisite(s): EED 354 and SCS 105.

EED 312 - Exploring K-8 Teaching: Responsibilities and Opportunities in Education (3)
Explores teaching as a profession as it relates to power, responsibilities and opportunities in K-8 learning environments. Assists students in determining whether they possess the desire and skills needed for pursuing teaching as a career. Includes required experiences in various learning environments. Satisfies general education requirement of intensive writing in the major.
Prerequisite(s): WRT 160.

EED 313 - Advanced Exploration of K-8 Teaching (2)
Students transitioning from community college programs to the Teacher Education Programs at Oakland University will explore teaching as a profession as it relates to power, responsibilities and opportunities in K-8 learning environments. Includes required experiences in various learning environments. Satisfies general education requirement of intensive writing in the major.
Prerequisite(s): EED 101, WRT 160.

EED 316 - Educating Children in Art (3)
Provides students with an understanding of discipline-based art education, a knowledge of children's artistic development, and a commitment to and skills for educating children about the visual arts.

EED 354 - Instructional Design and Assessment (3 or 4)
Prepares prospective teachers to design instruction based on best practices including effective use of formal and informal teacher-created assessment techniques in the process of planning, implementing and evaluating instruction based on standards and benchmarks. Includes a required field experience. Prerequisite: admission to major.

EED 406 - Health Curriculum at the Elementary-Middle Levels (1)
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.

EED 410 - Teaching Fitness and Wellbeing in Elementary and Middle Level Classrooms (2)
Students admitted to 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.

EED 420 - Managing the Classroom Community for U.S. Diverse Learners (4)
Acquaints prospective teachers with the importance of interactive skills associated with diversity, including race, ethnicity, religion, gender, sexual orientation and/or socioeconomic status as it influences and enhances the classroom community; provides students with the fundamentals of classroom management; requires substantive written assignments. Includes a required urban field experience. Satisfies the university general education requirement in U.S. diversity. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s) for Elementary Education major: EED 312/313, FE 406.
Corequisite(s) for Elementary Education major: EED 354.
Prerequisite(s) or Corequisite(s) for Elementary Education major: IST 396.
Prerequisite(s) for Studio Art or Modern Language major: EED 312/313 or SED 300/301.
Prerequisite(s) or Corequisite(s) for Studio Art or Modern Language majors: FE 406.

EED 428 - Foreign Language Teaching Methods in Elementary and Middle School (3)
This course 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 foreign language classroom fosters creative and communicative language practices. Required field experience. Prerequisite(s): EED 354 or SED 427 or ENG 398 or ALS 418.

EED 455 - Internship in Elementary Education (12)
Provides teaching and other appropriate activities in an area classroom with guidance by a university supervisor and a cooperating teacher. General and specific instructional concerns of interns are explored in five or more concurrent seminars. Completion of a program evaluation survey is required before a grade is reported to the registrar. May not be repeated. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): completion of all required program course work, passing scores on elementary education MTTC (Michigan Test for Teacher Certification) exams. Students who are doing an internship in middle school or junior high must also pass the appropriate MTTC subject matter tests.

EED 470 - Teaching Social Studies at the Elementary-Middle Levels (4)
Examines instructional objectives and strategies, curriculum materials and evaluative procedures for social studies education grades K-8. Upon completion of the course, students are able to develop, defend and implement an elementary social studies program. Includes a required field experience.
Prerequisite(s): EED 354.

EED 481 - Gender Socialization in Schools (1 to 4)
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. Cross-listed with EST 581. Identical with WS 481.

EED 489 - International Experiences in a Foreign Country (1)
Through directed study in international settings, students will develop first-hand awareness of cultural diversity. They will explore ways of creating or enriching existing curricular materials with their new found understandings of comparative perspectives at a global level. Cross-listed with SED 489.

EED 490 - Independent Study (1 to 4)
Pursues directed individual reading and research. May include a field placement as well as development of specific teaching materials. May be repeated for a total of 4 credits.
Prerequisite(s): permission of department (present written consent by faculty who will supervise study).

PHYSICAL EDUCATION METHODS

PED 101 - Beginning Aquatics (1)
Designed for the beginner, students will develop skill in water readiness activities, floating, back and prone glide, sculling, freestyle, backstroke, and elementary backstroke. Students will demonstrate knowledge of propulsion and resistance forces, correct stroke technique, and safety and emergency procedures.

PED 102 - Beginning Combatives (1)
Designed for an introduction to one combative technique, can include Akido, Boxing, Judo, Karate, Kendo, Tae Kwon Do, or Self-Defense. Students will demonstrate the fundamentals and proper techniques of the combative skill.

PED 104 - Beginning Individual and Dual Sports (1)
Designed for an introduction to one particular sport, can include beach volleyball, bowling, distance running, golf, orienteering, triathlon, and others. Students will demonstrate the fundamentals and proper techniques of the individual or dual sport.

PED 105 - Beginning Racquet Sports (1)
Designed for an introduction to one particular racquet sport, can include badminton, racquetball, squash, or tennis. Students will demonstrate the fundamentals and proper techniques of the racquet sport.

PED 106 - Beginning Team Sports (1)
Designed for an introduction to one particular sport, can include basketball, hockey, soccer, softball, volleyball, wallyball, and others. Students will demonstrate the fundamentals and proper techniques of the team sport.

SCIENCE STUDIES

SCS 105 - Science for the Elementary Teacher (4)
Develops science concepts and processes based on recent elementary school curricula in the fields of earth, physical and chemical science. For elementary education majors only; includes laboratory experiences.
Prerequisite(s): grade of 2.0 in one of BIO 104, BIO 110, BIO 111, BIO 113, BIO 300, CHM 104, CHM 157, CHM 167, CHM 300, ENV 308, GEO 106, PHY 101, PHY 104, PHY 105, PHY 106, PHY 115, PHY 120, PHY 151, or SCI 100.

SCS 306 - Environmental/Outdoor Education for Elementary/Middle School Levels (4)
Methods, materials and sites for teaching science-related topics in an environmental/outdoor context. Topics may include terrestrial and aquatic ecology, water quality studies, bringing the outdoors indoors, and program planning. Field trips are included. With laboratory. Crosslisted with EST 561.
Prerequisite(s): SCS 105 or permission of instructor.

SCS 490 - Independent Problems in Science Education (1 to 4)
Individual work in science for educators. Credits may be applied to a major or minor in science for teachers. May be repeated for a total of 4 credits.
Prerequisite(s): permission of instructor.

SOCIAL STUDIES

SST 200 - Social Studies for Elementary and Middle School Teachers (3)
Social studies integrate ideas from the social sciences and humanities to educate for informed decision-making of the people, by the people, for the people. In SST 200 students revisit concepts from the disciplines that will inform them when teaching children for conscious participation in a rapidly changing global society. Social studies integrates ideas from the social sciences and humanities to educate for informed decision-making of the people, by the people, for the people. In SST 200 students revisit concepts from the disciplines that will inform when teaching children for conscious participation in a rapidly changing global society.

Prerequisite(s): Grade of 2.0 or better in a course identified as meeting Social Science or Western Civilization General Education requirements.

SST 490 - Independent Study in Social Studies Education (1 to 4)
Individual work in social studies for educators. Credits may be applied to a major or minor in social studies for teachers. May be repeated for a total of 4 credits.
Prerequisite(s): permission of instructor.

ART EDUCATION

AED 301 - Visual Culture, Theories in Art Education (2)
This course develops knowledge of the theories and historical foundations of art education. Through lectures, readings, and discussion, students will explore historical and current trends in art education and visual culture as they learn to construct effective instruction and curricula in the visual arts using current instructional models and assessment strategies. This course is cross-listed with EST 501.

AED 302 - Teaching Art in the Elementary School (4)
This course develops knowledge and skills for teaching art in elementary schools. Through lectures, readings, discussion, and field experience, students explore current trends in art education, visual literacy, and visual culture while constructing and practicing effective instruction and designing curricula in the visual arts using current instructional and assessment strategies. This course is crosslisted with EST 502. Field placement required.
Prerequisite(s): AED 301.

AED 303 - Teaching Art in the Middle School (2)
This course is designed to develop knowledge and skills for teaching art in middle schools. Through lectures, readings, discussion and field experience, students explore current trends in art education, visual literacy, and visual culture while constructing and practicing effective instruction and designing curricula in the visual arts using current instructional assessment strategies. This course is cross-listed with EST 503. Field placement required.
Prerequisite(s): AED 301 and AED 302.
Corequisite(s): AED 304.

AED 304 - Teaching Art at the Secondary Level (4)
This course develops knowledge and skills for teaching art at secondary levels. Through lectures, readings, field and studio experience, students explore historical and current trends in art education, visual culture, and visual literacy while constructing effective instruction and curricula in the visual arts using current instructional and assessment strategies. This course is cross-listed with EST 504. Field placement required.
Prerequisite(s): AED 301, 302.
Corequisite(s): AED 303.

AED 455 - Internship in Art Education (12)
Provides teaching and other appropriate activities in an area classroom with guidance by university supervisor and cooperating teachers. General and specific instructional interns concerns are explored in multiple concurrent seminars. Completion of a program evaluation is required before a grade is reported to the registrar. Grade of 2.8 is required for certification recommendation. May not be repeated.

AED 490 - Independent Study in Art Education (1 to 4)
Pursues directed individual reading and research in art education. May include a field placement, as well as development of specific teaching materials. May be repeated for a total of 4 credits.
Prerequisite(s): permission of department (present written consent by faculty who will supervise study).

SECONDARY EDUCATION

SED 101 - Careers in Teaching and Learning (1)
An introduction to programs and opportunities for students considering teaching as a career. Career information, professional pathways for teachers, diversity in education, and examination of the profession of teaching are major course topics. Successful course completion grants eligibility for enrollment in EED 313 or SED 301.

SED 300 - Introduction to Secondary Education (1 to 4)
This is the first course in the Secondary Teacher Education Program (STEP) leading to Michigan teacher certification. Eligibility to apply to the OU STEP includes attainment of a 3.00 GPA in SED 300 and completion of 50 hours of field experience during the semester: 20 hours tutoring and 30 hours observation. Can only be repeated once. Overall GPA of 2.80 required to enroll. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university foundation requirement.

SED 301 - Public Education for Prospective K-12 Teachers (2)
This is the first course in the Secondary Teacher Education Program (STEP) leading to Michigan teacher certification. Eligibility to apply to the OU STEP includes attainment of a 3.0 GPA in SED 301 and completion of 30 hours of field experience during the semester. Can only be repeated once. Overall GPA of 2.80 required to enroll. Cross-listed with SED 300. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university foundation requirement.
Prerequisite(s): SED 101 or adviser approval.

SED 426 - Teaching in Your Minor Field: Mathematics (4)
Emphasizes the development of mathematics teaching strategies and human interaction techniques unique to secondary students. Topics include: discipline, motivation, instructional technology, skill assessment, evaluation, writing and reading across the curriculum, and effective learning. Field placement required.
Prerequisite(s): admission to secondary education. Minor field mathematics only.

SED 427 – ST: Teaching Secondary Minor Methods (3 or 4)
Emphasizes the development of teaching strategies and human interaction techniques unique to secondary students. Topics include: discipline, motivation, instructional technology, skill assessment, evaluation, writing and reading across the curriculum, and affective learning. This course is cross-listed with TD 527.
Prerequisite(s): admission to Secondary Education. Field placement required.

SED 428 - ST: Teaching Secondary Major Methods (3 or 4)
Develops specific knowledge, competencies and skills required for effective teaching in the student's major field. Field placement required. This course is cross-listed with TD 528.
Prerequisite(s): admission to Secondary Education and internship placement.

SED 455 - Internship in Secondary Education (4 to 12)
Provides an academic year internship in an assigned school district under the guidance of a clinical instructor and university instructor. Enrollment for a total of 12 credits is required for completion of the internship. Satisfies the university general education requirement for the capstone experience. Grade of 2.8 required for certification recommendation. May not be repeated.
Prerequisite(s): admission to the internship.

SED 489 - International Experiences in a Foreign Country (1)
Through directed study in international settings, students will develop first-hand awareness of cultural diversity. They will explore ways of creating or enriching existing curricular materials with their new-found understandings of comparative perspectives at a global level. Cross-listed with EED 489.

SED 490 - Independent Study in Secondary Education (1 to 4)

Pursues directed individual reading, research and fieldwork in secondary education. May be repeated for a total of 4 credits.
Prerequisite(s): permission of department (or written consent by faculty who will supervise study).
Schedule of classes
Specific offerings for each semester may be found in the Schedule of Classes: sail.oakland.edu

School of Engineering and Computer Science

301 ENGINEERING CENTER
(248) 370-2217
Fax: (248) 370-4261
School website: oakland.edu/secs

Dean: *Louay M. Chamra*; **Executive Secretary:** *Jane Dietrich*

Associate Dean: *Qian Zou*; **Administrative Secretary:** *Linda Tuckfield*

Business Manager: *Keith Harvey*; **Accounting Clerk IV:** *Barbara Kline*

Director of Undergraduate Advising: *Carmen Etienne*

Academic Advisers: *Eman Shammo; Sarah Shelden; Debra Wheeler*

Office Assistant I: *Marlene McKean*

Director of Career Services*: Kathleen Livelsberger*

Career Consultant: *Kelli Foskic*

Computer Support - Computer Network Administrator: *Nicholas LaForge*

Computer Technologist: *Terrence P. Heinz*

Communications Manager: *Emily Prawdzik-Genoff*

Director of Recruitment and Outreach: *Krzysztof Kobus*

Assistant Director of Outreach: *Marianne Donoghu*

Laboratory Manager: *Matt Bruer*

Project Engineer: *Pete Taylor*

SmartZone Business Incubator:
Executive Director - *Amy Butler*
Director of Clean Energy Systems - *Jim Leidel*
Finance and Operations Coordinator - *Stephen Kent*

Advisory Board

The Advisory Board for the School of Engineering and Computer Science (SECS) is composed of leaders in industry. They assist the school in developing educational and research programs to meet the rapidly expanding requirements in the technical world. The board is available as a body or individually for consultation on such matters as curriculum, research, facilities, equipment requirements, special subjects and long-range planning. Board members are:

Mission

The overall mission of the School of Engineering and Computer Science (SECS) 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 in 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.

General Information

Accreditation

The undergraduate programs in computer engineering, electrical engineering, industrial and systems engineering, mechanical engineering are accredited by the Engineering Accreditation Commission (EAC) of ABET. The undergraduate computer science program and software engineering and information technology program are accredited by the Computing Accreditation Commission (CAC) of ABET. Note: bioengineering program, is expected to pursue ABET accreditation.

Undergraduate programs

The School of Engineering and Computer Science (SECS) offers instruction leading to the degrees of Bachelor of Science in Engineering, with majors in computer, electrical, industrial and systems, and mechanical engineering, and Bachelor of Science, with a major in computer science, and information technology. In addition, programs leading to the Bachelor of Science degree in engineering chemistry, engineering physics and bioengineering are offered jointly with the College of Arts and Sciences.

Through its engineering programs, the SECS prepares students for careers in an industrial-based society. Recognizing that today's engineers must be able to solve complex, highly focused problems, as well as those transcending narrow fields of specialization, the SECS blends an interdisciplinary core with specialized study in the elected major for each program.

Oakland University engineering graduates are prepared to enter the traditional fields of government, product design, development, manufacturing, sales, service and systems analysis - as well as specialized areas, such as robotics, transportation, pollution control, energy systems, computer engineering, communications, medical electronics and automotive engineering. They are also prepared to pursue graduate study for careers in research and teaching. A growing number of students find their undergraduate engineering education is excellent preparation for careers in business, law and medicine.

The baccalaureate program in computer science provides a solid foundation for a career in that field. Since both the engineering and computer science programs are offered within the school, computer science majors are exposed to the software as well as the hardware aspects of the profession. Thus, students in the computer science program prepare themselves for careers in the traditional fields of systems programming, data processing and systems analysis, as well as in such interdisciplinary fields as artificial intelligence, robotics, bioinformatics, computer architecture, computer graphics, pattern recognition and scientific computation. The baccalaureate program in information technology is focused on the applied aspects of software technology. The program provides sufficient technical depth and a comprehensive understanding of information technology in the context of problem solving relevant to both engineering and service industries. The SECS also offers minors in computer science and in computing or information technology.

Professional Societies

The school has a number of professional societies such as the Association of Computing Machinery (ACM), Aerial Systems Club (ASC), American Society of Mechanical Engineers (ASME), Engineering in Medicine and Biology Society (EMBS), Engineering Society at Oakland University (ESOU), For Inspiration and Recognition of Science and Technology (FIRST Robotics), Institute of Electrical and Electronics Engineers (IEEE), International Association for Hydrogen Energy (IAHE), Institute of Industrial Engineers (IIE), Oakland Robotics Association (ORA), SAE (formerly known as Society of Automotive Engineers) , Society of Women Engineers (SWE), National Society of Black Engineers (NSBE), National Society of Professional Engineers (NSPE), Theta Tau fraternity and honor societies Eta Kappa Nu and Tau Beta Pi. Students are encouraged to become active members of one or more of these organizations.

Graduate programs

The SECS offers programs leading to the Master of Science degree in 1) computer science, 2) software engineering and information technology, 3) electrical and computer engineering, 4) embedded systems, 5) mechatronics, 6) industrial and systems engineering, 7) mechanical engineering, and 8) systems engineering. The SECS also offers programs leading to Doctor of Philosophy degrees in 1) computer science and informatics, 2) electrical and computer engineering, 3) mechanical engineering, and 4) systems engineering; the Ph.D. in Systems Engineering program is a school-wide program allowing for a blending of various disciplines. The school also offers a Master of Science degree in engineering management in cooperation with the School of Business Administration. For more information, see the Oakland University Graduate Catalog.

Centers/Institutes

Center for Robotics Unmanned and Intelligent Systems (CRUIS)

The Center will facilitate opportunities for OU faculty to lead start-up initiatives to work with business & government agencies to transition technical knowledge from academia to industry commercialization opportunities by enabling a research, development, test and evaluation capabilities. CRUIS will seek opportunities to support robotics and unmanned systems challenges in the defense industry that will lead to development of expertise that can be translated to various sectors - security, commercial, social, medical and others that are main stream to our daily lives.

Fastening and Joining Research Institute (FAJRI)

Fastening and joining significantly affects the safety, quality and reliability of many mechanical and structural systems, machinery and equipment. The FAJRI is the only known academic facility of its kind in the world dedicated solely to the research and development of fastening and joining of materials in industries such as automotive, aerospace and nuclear. The research programs at FAJRI benefit both the commercial and defense sectors of the economy, while improving the safety of the public.

Automotive Tribology Center (ATC)

The Automotive Tribology Center is an academic research unit within the Mechanical Engineering department. It is the only university research center in the United States that is dedicated to automotive tribology research and is uniquely positioned to advance the reliability, mobility and efficiency of automotive components. The ATC is mainly dedicated to performing fundamental and applied research that lowers frictional energy losses. Particular emphasis is placed on engine and transmission tribology. The research results of ATC benefit the US military and different governmental and industrial sectors of the economy.

Clean Energy Research Center (CERC)

Energy affects all aspect of our lives from the economy to recreation to health care. The Clean Energy Research Center explores sustainable ways to meet our future energy needs utilizing unique renewable energy feed sources, from biomass to wind to solar with a focus on overall energy conservation. The CERC has launched an academic effort to teach and train the next generation of students on energy issues, has begun the green campus initiative to demonstrate the benefit of alternative energy technology on campus, and continues to perform research towards developing environmentally friendlier technologies.

Chrysler Learning and Innovation Center for Sheet Metal Forming Technology (CLIC-form)

Composed of university faculty, scholars, students, and industry experts, the Chrysler Learning and Innovation Center for Sheet Metal Forming is an academic center at which training, applied research, and intellectual property management in the area of sheet metal forming are carried out. Collaborative initiatives at CLIC-form are open to all domestic and international entities. A unique feature of CLIC-form is its highly selective, industry-hosted internship program in which OU undergraduate students participate in research projects during the summer. In addition to providing educational training and engaging in collaborative research, the team at CLIC-form seeks to develop and commercialize intellectual property related to sheet metal forming technology.
Center for Advanced Materials and Manufacturing (CAMM)
A unique research center in North America specializing in stamping dies wear, and developing innovative sheet metal forming and joining processes. The CLIC form Center is part of the CAMM.

Hardware in the Loop (HIL)

Hardware-in-the-loop (HIL) simulation is used widely in the development and testing of complex real-time embedded systems, such as automotive engine controllers. The OU HIL Lab is a unique multi-disciplinary academic facility, which was established in 2012 with support from Chrysler LLC, and is located in Dodge Hall of Engineering. The HIL lab contains five automotive-hardware-in-the-loop simulators that allow testing and development of production and prototype engine and transmission controllers using simulated (software) automobiles. Research

projects have included fuel economy strategies, engine thermal modeling, and advanced control techniques for transmission shift control.

Admission

High school preparation

Entering engineering and computer science freshmen should have taken at least four years of high school mathematics, including trigonometry, and should have a strong grasp of English composition. Additional preparation should include course work in chemistry and physics. Exposure to computer aided design (CAD), machine shop tooling, computer programming and electronics shop devices is useful, but is not required for admission. Entering information technology freshmen should have at least three years of high school mathematics with some preparation in science. Normally, a 3.0 (B) grade point average is required for admission into the SECS programs.

Transfer policy

The programs offered by the SECS are designed to meet accreditation criteria, as well as to reflect the Oakland University philosophy of education. The programs are more than an assemblage of courses; they are designed to blend theory and experiment, and to integrate fundamental mathematical and scientific backgrounds into advanced analysis and design work.

To ensure the integrity of its programs, the SECS has adopted the following transfer policy: Records of students transferring to Oakland University from other academic institutions are evaluated and transfer credit is granted as appropriate. Students may transfer applicable community college credits at any time during their course of study. However, at least one-half of the credits required for completion of a specific baccalaureate degree program must be from regionally accredited four-year institutions, with at least 32 credits earned at Oakland University.

Students planning to transfer into one of the engineering programs should present the following: four semester courses in analytic geometry and calculus, including linear algebra and differential equations; two semester courses in introductory calculus-based college physics; and one or two semester courses in chemistry. Other credits in mathematics, science or engineering will be evaluated with reference to engineering graduation requirements. Technician course credits generally do not apply to these requirements. Community college students who plan to transfer into an engineering program are advised to follow the transfer equivalency guides found on Oakland University's web site. Students planning to transfer from Macomb Community College (MCC) under the two-plus-two program must meet specific requirements that are available in detail from the Admissions Office at MCC or the SECS Advising Office at Oakland University. Students planning to transfer into the computer science program should complete one year of course work in calculus, one course in linear algebra, one course in discrete mathematics if possible and two semester courses in introductory calculus-based physics. A course in programming in a high-level language is desirable. Whenever possible, further course work in computer science should be planned with an Oakland University adviser to ensure compatibility with university requirements. Students transferring into the information technology program should include a course in calculus, a course in statistics, and a course in a science elective. A course in programming in a high level language is also desirable.

Transfer students from non-ABET-accredited foreign institutions must complete a minimum of 20 credits in their major program of study (professional subjects) at Oakland University including the capstone design course. All of the courses presented for transfer from such programs must receive school approval, before the student receives official transfer credit. See Transfer Student information for additional details.

Internal transfer

Oakland University students wishing to transfer into engineering or computer science programs in the SECS from other majors, undecided status, or engineering/computer science candidate status will be considered upon the completion of the following courses: MTH 154, MTH 155; PHY 161 and PHY 162. Engineering physics students must

complete PHY 151 and PHY 110 as well as PHY 152 and PHY 111 in addition to MTH 154, MTH 155. Similarly, students wishing to transfer into the information technology program will be considered upon completion of MTH 154 or MTH 122, STA 227, APM 163 and an approved science elective. An overall Oakland University GPA of 2.6 is also required.

Academic Advising and Plans of Study

The programs of study for all entering freshmen are focused toward acquiring math, science, writing and programming skills. One of the early courses taken by engineering students is EGR 120, Engineering Graphics and CAD, which introduces students to the special software tools used in engineering. In consultation with the faculty mentors and advising office, students should ensure that they satisfy all of the requirements of their programs of study.

The school's academic advising office oversees specific program requirements. Students who have questions about transfer credit, academic standing, major standing, petitions or the details of degree requirements should consult an academic adviser in the SECS Undergraduate Advising Office. Students of the SECS must complete a Plan of Study form, which is a timetable of courses to be taken for undergraduate credit. They should complete the form as early as possible, but no later than the end of the semester in which they complete 48 credits. Transfer students should consult with an academic adviser when they enter Oakland University, and complete a Plan of Study form. Students are responsible for updating their plans regularly, preferably each semester. Although advisers are obligated to help students plan their programs, the responsibility for fulfilling degree requirements remains with students. The SECS Undergraduate Advising Office is located in 255 Engineering Center, (248) 370-2201.

Degree Requirements

General requirements for the baccalaureate degrees

The following general requirements must be met by students seeking a bachelor's degree in computer engineering, electrical engineering, industrial and systems engineering, mechanical engineering, engineering chemistry, engineering physics, bioengineering, computer science, and information technology:

1. Complete at least 128 - 130 total credits (See the corresponding program description for the exact total). At least 32 credits must be in courses at the 300 level or above.
2. Complete at least 32 credits at Oakland University (Refer to the transfer policy of the SECS for further clarification). The credits taken at Oakland must include the following for students majoring in computer, electrical, industrial and systems, or mechanical engineering: at least 24 credits in engineering core or professional subjects required for the major; Engineering chemistry, engineering physics, and bioengineering: at least 16 credits in required engineering courses, and 16 credits in chemistry or physics or biology courses required for the major; Computer science: at least 24 credits in computer science courses required for the major. Information Technology: at least 24 credits in information technology courses required for the major.
3. Take the last 8 credits needed to complete baccalaureate requirements at Oakland University.
4. Fulfill the university general education requirements (see below and in the Oakland University Undergraduate Degree Requirements section of this catalog).
5. Be admitted to major standing in the major of the student's choice.
6. Complete the requirements specified for the elected major.
7. Earn a cumulative grade point average of at least 2.0 in courses taken at Oakland University.
8. All students must apply to graduate by submitting an Application for Degree online.

Writing foundation, writing intensive, and U.S. diversity

The baccalaureate degree requirements include completion of WRT 160, with a grade of 2.0 or higher to satisfy the university general education requirement in writing as part of the foundations area. Students who believe their skills warrant exemption from WRT 160 may also submit a portfolio. (Refer to the Oakland University Undergraduate Degree Requirements section of this catalog). Students must also satisfy requirements for a writing

intensive course in general education, a writing intensive course in the major, a U.S. diversity course, and a capstone course (please refer to the Oakland University Undergraduate Degree Requirements section of this catalog).

General education requirements

The General Education requirements are comprised of three parts: Foundations, Exploration, and Integration. In addition, U.S. Diversity requirements must also be met. For details, refer to the General Education section of the catalog.

Foundations:

1. Writing foundations as indicated above.
2. Formal Reasoning (Satisfied by MTH 122 or MTH 154 for IT majors. Satisfied by MTH 154 for all other majors.)

Exploration:

3. Art
4. Foreign Language and Culture
5. Global Perspective
6. Literature
7. Natural Science and Technology (Satisfied by EGR 240 or EGR 250 for engineering and computer science majors. Satisfied by BIO 111, PHY 151 and PHY 110, CHM 144 and CHM 147, or ENV 308 for IT majors.)
8. Social Science (Engineering majors must take one of the following: ECN 150, ECN 201, ECN 202 or ECN 210.
9. Western Civilization (All Engineering, Engineering Science, Computer Science and Information Technology majors are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.)

Integration:

10. Knowledge Applications (Satisfied by MTH 155 for engineering and engineering science majors. Satisfied by APM 163 for IT majors.)

Capstone: SECS students with majors in engineering and computer science, satisfy these areas by virtue of their required courses. However, information technology majors must take a course from the natural science and technology knowledge exploration area.

U.S. Diversity: May be met by an approved course in the Explorations area.

Engineering core

All engineering programs in the SECS have a common core program consisting of the following courses:

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)

This core program introduces students to the nuances of the interdisciplinary nature of engineering and lays the foundations for the specialized studies in the student's major fields of study. These courses also provide substantial, real world laboratory experiences to students. It is important that students successfully complete these courses in order to achieve major standing (see below).

Major standing

To enroll in 300- or 400-level courses and to become candidates for the baccalaureate degree, students of the SECS must gain major standing in their selected majors. An application for major standing should be submitted during the semester in which students complete all requirements for major standing. Students lacking major standing may enroll in 300- or 400-level engineering, computer science and information technology courses only

by presenting at registration an approval form signed by the academic adviser. The purpose of this process is to ensure that students can complete outstanding deficiencies preventing achievement of major standing. Forms may be obtained from the SECS Undergraduate Advising office.

To gain major standing requires satisfactory completion of course work in mathematics, science and the major, as designated below.

Engineering:
Mathematics: MTH 154-MTH 155, APM 255; Science: CHM 143; PHY 161, PHY 162; Engineering Core: EGR 120, EGR 141, EGR 240, EGR 250, EGR 260 and EGR 280.

Computer science:
Mathematics:MTH 154-MTH 155, MTH 275; APM 263; Science: PHY 161, PHY 162; Major: EGR 240; CSE 230, CSE 280.

Information technology:
Math/Science: MTH 154, or MTH 122, STA 227; APM 163; science elective; Major: CIT 120, CIT 131, CIT 230, CIT 247, CIT 252,CSE 280.

Bioengineering:
Math/Science:MTH 154-MTH 155, APM 255; Science:PHY 161, PHY 162, BIO 111, BIO 113; Major: EGR 120, EGR 141, EGR 240, EGR 250, EGR 280.

Engineering physics:
Mathematics: MTH 154-MTH 155, APM 255; Science: CHM 143; PHY 151, PHY 110, PHY 152, PHY 111; Major: EGR 120, EGR 141, EGR 240, EGR 250, EGR 260, EGR 280.

Engineering chemistry:
Mathematics: MTH 154-MTH 155, APM 255; Science: [CHM 144, CHM 147, CHM 145, CHM 148] or [EGR 120, CHM 162, CHM 163]; Major: EGR 120, EGR 141, EGR 240, EGR 250, EGR 260, EGR 280.

To complete the requirements for major standing satisfactorily a student must a) have an average of at least 2.0 in each of the mathematics, science or math/science (for IT) and core/major course groupings, b) have no more than two grades below 2.0 in the required courses; c) not have attempted any course more than three times; and d) not have repeated more than three different courses. Courses in which a W (withdrawal) grade is recorded will not be counted. Conditional major standing may be granted in the semester in which the student is enrolled in EGR 280 (for engineering majors), CSE 280 (for CS majors) or CIT 280 (for IT majors). Transfer students may satisfy the requirements for major standing by using transfer credits.

Typical schedule for the first two years (The following is a sample schedule for Mechanical Engineering students):

	Fall	Winter
Year 1	MTH 154	MTH 155
	CHM 143	PHY 161
	EGR 120	EGR 240
	EGR 141	Gen. Ed.
	Gen. Ed.	
Year 2	APM 255	MTH 254
	PHY 162	EGR 260
	EGR 250	EGR 280
	Gen. Ed.	Gen. Ed.

Scheduling depends on students' selected majors, but should be tailored to meet the requirements for admission to major standing promptly. For sample schedules, refer to the department listings in this catalog or to the student handbook of the SECS. Students who are not prepared to enter the mathematics and science courses without additional preparation in these subject areas must modify their schedules accordingly. Such students may require additional time to complete degree requirements, unless they make up the deficiencies by enrolling during the summer semester following the freshman year.

Course load

Students should strike a balance between course load and other commitments. In general, students carrying a full load of 16 credits per semester should not be employed for more than 10 to 20 hours per week. Students who are employed 40 hours per week generally should not carry a course load of more than 4 credits per semester. The university's maximum course load policy is detailed in the Academic Policies and Procedures section (see Course and credit system).

Graduation check

To ensure that students have met all requirements, they must participate in a final program audit during the semester preceding the one in which they expect to graduate. A preliminary Graduation Review form should be submitted to the Academic Adviser in the SECS Undergraduate Advising Office.

Internships

Many employers seek SECS students for internship employment. Therefore, those SECS students who wish to combine relevant work experience with their college education are encouraged to participate in internship programs in association with engineering or computer science related employers. Participation in job fairs, which are hosted by the Oakland University Career Services, is often helpful for securing internships. To prepare for internship opportunities, SECS students should list their resume and participate in interview skills training through the Career Services office in 154 North Foundation Hall.

Double Major

To earn two majors in engineering or in engineering and computer science, students must complete all the requirements of both programs. Further, in addition to the credit hours needed for one major, the student must complete a minimum of 12 credit hours in pertinent technical courses applicable to the second major. Students seeking two degrees should consult the university's requirements (see Additional undergraduate degrees and majors).

Minors and Concentrations

Students who wish to add a minor or concentration or otherwise participate in an interdepartmental program must apply for admission and seek assistance in planning a program. Application may be made to the coordinator of the appropriate program committee or department involved. Students in the School of Engineering and Computer Science might be interested in the following minors or concentrations: Applied mathematics, applied statistics, biology, chemistry, economics, environmental studies, linguistics, and physics. For details, see Other Academic Options in the College of Arts and Sciences portion of the catalog. Other areas of interest might be: accounting, finance, general business, management information systems, production and operations management, and quantitative methods. For details on these, see Minors in the School of Business Administration portion of the catalog. The School of Engineering and Computer Science offers the following minors:

Minor in International Orientation (for SECS students)

Coordinator: *Lunjin Lu*

In view of the ever-increasing globalization of industry, students in engineering and computer science need to be aware of their international opportunities and also to develop an intellectual background that enhances their ability to respond to professional challenges in the global environment. To obtain a minor in international orientation, engineering/computer science students must complete the following courses with a grade of at least 2.0 in each course:

Requirements

- ECN 200 - Principles of Macroeconomics (4) or ECN 202 - Principles of Global Macroeconomics (4)
- ECN 210 - Principles of Economics (6)
- Foreign language consistent with the introductory course (8)
- One advanced course (4 credits) from PS 314 or ECN 373
- EGR 496 (4), which requires eight weeks of study/work abroad.

Introductory course - 4 credits

- IS 210 - Introduction to China (4)
- IS 220 - Introduction to Japan (4)
- IS 230 - Introduction to Africa (4)
- IS 240 - Introduction to India (4)
- IS 250 - Introduction to Latin America (4)
- IS 260 - Introduction to Russia and Eastern Europe (4)
- HST 341 - Europe Since 1914 (4)

Note: Some of the courses listed above also satisfy general education requirements. This minor is open to the students in the School of Engineering and Computer Science.

Additional Minors (not open to computer science, computer engineering or information technology students)

- Minor in Computer Science (See description in Department of Computer Science section.)
- Minor in Computing (See description in Department of Computer Science section.)
- Minor in Information Technology (See description in Department of Computer Science section.)

Additional Information

Prerequisite courses

In planning their schedules, students should ensure that they satisfy prerequisite and corequisite conditions for courses, as listed under "Course Offerings." Students will have their registrations canceled if they register for

courses for which they do not meet the prerequisite or corequisite conditions. Students will be liable for any financial penalties incurred by such cancellation.

Project and independent study courses

Project and independent study courses numbered 490 and 494 are available to provide enrichment opportunities to qualified students. They are not intended as substitutes for regular course offerings; rather, they allow students to investigate areas of interest outside the scope of regular courses, examine subjects more deeply than can be accommodated in regular courses, or gain educational experiences beyond that of regular course work. To register for a project or independent study course, students must first submit a plan of work to the faculty member who will supervise the course. The plan must be approved in writing by the faculty member and the chair of the major department before students may register for the course.
Application forms are available in the departmental offices.

Petitions

Waivers of specific academic requirements may be initiated by submitting a petition of exception (see Petition of exception). Students seeking a review of their academic standing within the school or students who wish to make a formal complaint should submit a written petition to the chair of their major department or to the SECS associate dean. Petitions will be processed according to established university procedures.

Academic conduct

Students are expected to abide by the principles of truth and honesty, which are essential to fair grading. Academic misconduct in any form is not permitted. Students who are found guilty of academic misconduct as determined by the university Academic Conduct Committee, in any course offered by the school, may be subject to penalties that range from a reduced grade for the assignment, a grade of 0.0 for the entire course, academic probation, suspension or dismissal from the university. All assignments must be the independent work of each student, unless the professor of the course gives explicit permission relaxing this requirement.

See the Academic Conduct Policy section of the catalog for more detailed information.

Academic standing

The performance of students in the School of Engineering and Computer Science will be reviewed at the end of each semester to determine academic progress. Good academic standing in the school requires a cumulative grade point average of at least 2.0 in: a) courses required for the major; b) cognate courses in mathematics and science; and c) all courses taken at Oakland University. Students whose cumulative grade point averages fall below 2.0 in one or more of the three categories will be placed on probation status.

Students who fail to correct the conditions leading to probation after one semester are generally ineligible to continue their programs. However, probation status may be continued if students are judged to be making substantial progress toward correcting the deficiency. (For part- time students, 12 consecutive credits of course work will be considered equivalent to one semester.
Students on probation status may not serve on committees of the School of Engineering and Computer Science. Students who become ineligible to continue enrollment in the School of Engineering and Computer Science may transfer to another school or college within the university subject to their requirements.

The above rules were established by the undergraduate curriculum committee of the School of Engineering and Computer Science. Students wishing to appeal a ruling on their academic status must address a written petition to the School's committee on academic standing. Petitions may be submitted to an SECS academic adviser or to the SECS associate dean.

Unsatisfactory performance

Unsatisfactory (U) grades and grades less than 2.0 are considered substandard. A student within the School of Engineering and Computer Science who repeats a course in which a grade below 2.0 has been earned must repeat that course at Oakland University. Courses in which a grade below 2.0 has been earned may not be subsequently passed by competency examination or independent study. See repeating courses for additional information.

Honors, awards and scholarships

The School of Engineering and Computer Science may, at its discretion, confer departmental honors on students who have completed a minimum of 62 credits in the School and demonstrated a high level of scholarly accomplishment by achieving a GPA of 3.5 or higher in SECS courses.

Each year the faculty selects graduating seniors to receive four special awards: Exceptional Achievement, Academic Achievement, Professional Development, and Service. In addition to scholarships available to all Oakland University students, the School of Engineering and Computer Science offers additional scholarship opportunities. Information about these opportunities may be found on the SECS website.

Course Offerings

Courses offered through the School of Engineering and Computer Science carry the following designations: information technology courses, CIT; computer science and engineering courses, CSE; electrical and computer engineering courses, ECE; industrial and systems engineering courses, ISE; mechanical engineering courses, ME. Courses offered under the general title of engineering are listed under EGR. For some of the courses, the semester(s) in which they are usually offered is indicated at the end of the course description. However, this is subject to change. To register for 300- and 400-level courses, students must have attained major standing.

Department of Computer Science and Engineering

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Department Website: oakland.edu/secs/cse

Interim Chairperson: *Lunjin Lu*

Professors emeriti: *David E. Boddy, Glenn A. Jackson, Janusz W. Laski, Sarma R. Vishnubhotla, Thomas G. Windeknecht*

Professors: *Huirong Fu, Ishwar K. Sethi, Gautam Singh*

Associate professors: *Debatosh Debnath, Dae-Kyoo Kim, Lunjin Lu, Nilesh Patel, Guangzhi Qu, Mohammad-Reza Siadat*

Assistant professors: *Mehdi Bagherzadhi, Erik Fredericks, Anyi Liu, Khalid Mahmood, Hua Ming, Yonghong Yan*

Visiting assistant professor: *Paul Bonamy, Simon Ellis, Xiaotong Lin, Shital Joshi*

Special instructors: *Laura Dinsmoor*

Lecturer: *Mary Schmotzer*

Adjunct faculty: *Preston Brooks, Theresa Rowe*

Advisory Board

The Computer Science and Engineering Advisory Board assists the department in enhancing its educational and research programs and ensuring their relevance to current and emerging technological needs. Board members are:

Paul Besl, Ph.D., Parallel and Distributed Systems Engineer, Intel Corporation
Richard J. Chutarash, ESG-Automotive
Laura Dillon, Ph.D., Michigan State University
Gregory Mason, President, USDI
Jason Prater, PLEX Systems
Theresa Rowe, Chief Information Office, Oakland University
Ramasamy Uthurusamy, Ph.D., retired, Emerging Technologies, General Motors
Lawrence C. Wehner, Application Software Executive, Hewlett-Packard
Donald J. Welch, Ph.D., President and CEO, Merit Network, Inc.

General Information

The Department of Computer Science and Engineering carries out the mission of the School of Engineering and Computer Science by offering separate undergraduate majors in Computer Science and Information Technology. The department also offers masters programs in Computer Science, Software Engineering and Information Technology, and a Ph.D. program in Computer Science and Informatics. The undergraduate programs in the Department of Computer Science and Engineering are accredited by the Computing Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET).

The 500 level CSE courses are graduate level courses. These are open to undergraduate students with instructor permission and major standing (See Graduate Catalog for descriptions).

- CSE 522 Objective Oriented Analysis and Design
- CSE 538 Software Verification and Testing
- CSE 542 Software Architecture and Components
- CSE 549 Wireless and Industrial Networks
- CSE 555 Visual Computing
- CSE 581 Information Retrieval and Knowledge Discovery
- CSE 583 E-Commerce and ERP

Requirements for the major in Computer Science, B.S. program

The program in computer science leading to a Bachelor of Science degree prepares students for a productive career in industry, and for graduate study in computer science. The program prepares the students for a productive career in industry by providing them with the technical skills to formulate suitable abstractions, create novel computational solutions, design complex systems, and improve on existing solutions integrating current and emerging technologies. The program prepares the students for lifelong learning and graduate school by providing them with the theoretical foundations of information and computation and exposing them to areas of current and future developments. The program also includes a strong professional component for the development of skills in technical communication, ethics, and team work. The BSE in Computer Science program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

In the course of their careers, graduates of the Computer Science program will:

- Work productively in the creation, maintenance, and improvement of computing systems.
- Remain current in their profession through lifelong learning, including graduate school.
- Exhibit leadership and exercise their profession with the highest level of ethics, and social responsibility.

Course requirements (minimum of 128 total credits)

To earn the Bachelor of Science degree with a major in computer science students must complete a minimum of 128 credits, satisfy the general education requirements (also see Undergraduate degree requirements) and meet the following requirements:

General education (excluding math and science) -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and science -- 28 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 275 - Linear Algebra (4)
- APM 263 - Discrete Mathematics (4)
- STA 226 - Applied Probability and Statistics (4)
- PHY 161 - Fundamentals of Physics I (4) *
- PHY 162 - Fundamentals of Physics II (4) *

PHY 161 and PHY 162

* Neither PHY 161 nor PHY 162 satisfies the university general education requirement in the natural science and technology knowledge exploration area. Credit for both PHY 151 and PHY 161 is not permitted, and credit for both PHY 152 and PHY 162 is not permitted.

Computer science core -- 22 credits

- CSE 142 - Introduction to C Programming and Unix (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- CSE 230 - Object-Oriented Computing I (4)
- CSE 231 - Object-Oriented Computing II (4)
- CSE 280 - Sophomore Project (2)
- CSE 364 - Computer Organization (4)

Required professional subjects -- 32 credit

- CSE 247 - Introduction to Computer Networks (4)
- CSE 335 - Programming Languages (4)
- CSE 337 - Software Engineering and Practice (4)
- CSE 343 - Theory of Computation (4)
- CSE 345 - Database Design and Implementation (4)
- CSE 361 - Design and Analysis of Algorithms (4)
- CSE 450 - Fundamentals of Operating Systems (4)
- CSE 480 - Senior Capstone Project (4)

Professional training -- 4 credits

Selection one of the following courses:

- CSE 496 - Internship (4)
- CSE 498 - Undergraduate Research (4)

Professional track -- 8 credits

Select courses from one of the following professional tracks:

- Computational Intelligence (CSE 513, CSE 581) (8)
- System Administration Track (CIT 348, CIT 349) (8)
- Bioinformatics Track (BIO 341, CSE 461) (8)
- Computer Security Track (CIT 448, MTH 472) (8)

Electives -- 6 credits

Any 300-, 400-, or 500-level engineering or computer science or information technology courses.

Any one of the following 200-level courses:

- CSE 232 - C++ for Programmers (2)
- CSE 233 - Immersive Python (2)
- CSE 234 - Ruby for Web Developers (2)
- CSE 235 - Programming in Visual C# for .NET Technology (2)

Any one of the following 500-level courses (with departmental approval):

- CSE 522 Objective Oriented Analysis and Design (4)
- CSE 538 Software Verification and Testing (4)
- CSE 542 Rapid Proto and Component Software (4)
- CSE 549 Wireless and Industrial Networks (4)

- CSE 555 Visual Computing (4)
- CSE 581 Information Retrieval and Knowledge Discovery (4)
- CSE 583 E-Commerce and ERP (4)

Any math or science elective from the following:

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 332 - Applied Matrix Theory (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 463 - Graph Theory and Combinatorial Mathematics (4)
- APM 477 - Computer Algebra (4)
- BIO 111 - Biology I (4)
- CHM 143 - Chemical Principles (4)
- MTH 352 - Complex Variables (4)
- MOR 242 - Elementary Models in Operations Research (4)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 371 - Foundations of Modern Physics (4)

or others by approved petition to the SECS Committee on Academic Standing

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 within each group: namely, mathematics and science, core subjects and professional subjects. Within professional subjects, at most two grades below 2.0 are permitted, at most two different courses may be repeated and a total of three attempts is permitted.

Sample computer science schedule

Students entering the School of Engineering and Computer Science with the required background may follow a schedule such as the one indicated below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program.

Freshman year

Fall semester -- 16 credits

- MTH 154 - Calculus I (4)
- CSE 142 - Introduction to C Programming and Unix (4)
- WRT or general education (8)

Winter semester -- 16 credits

- MTH 155 - Calculus II (4)
- PHY 161 - Fundamentals of Physics I (4)
- CSE 230 - Object-Oriented Computing I (4)
- General education (4)

Sophomore year

Fall semester -- 16 credits

- APM 263 - Discrete Mathematics (4)
- CSE 231 - Object-Oriented Computing II (4)

- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- PHY 162 - Fundamentals of Physics II (4)

Winter semester -- 18 credits

- MTH 275 - Linear Algebra (4)
- CSE 247 - Introduction to Computer Networks (4)
- CSE 280 - Sophomore Project (2)
- General education (8)

Junior year

Fall semester -- 16 credits

- STA 226 - Applied Probability and Statistics (4)
- CSE 361 - Design and Analysis of Algorithms (4)
- CSE 364 - Computer Organization (4)
- General education (4)

Winter semester -- 16 credits

- CSE 335 - Programming Languages (4)
- CSE 343 - Theory of Computation (4)
- CSE 337 - Software Engineering and Practice (4)
- General education (4)

Senior year

Fall semester -- 14 credits

- Professional elective (2)
- CSE 345 - Database Design and Implementation (4)
- One professional track course (4)
- CSE 496 or CSE 498 (4)

Winter semester -- 16 credits

- One professional elective (4)
- CSE 450 - Fundamentals of Operating Systems (4)
- CSE 480 - Senior Capstone Project (4)
- One professional track course (4)

Requirements for the major in Information Technology, B.S. program

The program in information technology (IT) leading to a bachelor of science degree prepares students for a successful professional career in IT. The program provides students with the technical foundation of information technology, and the problem solving skills and hands-on practice to create IT solutions in a variety of domains. The program also includes a strong professional component to develop skills in technical communication, ethics, and team work. The BSE in Information Technology program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

In the course of their careers, graduates of the Information Technology program will:

- Work productively as problem solvers and providers of IT solutions in multi-disciplinary environments, including the automotive and health settings.
- Remain current in their profession through lifelong learning.

- Exhibit leadership and exercise their profession with the highest level of ethics, and social responsibility.

Course requirements (minimum of 128 total credits)

To earn the Bachelor of Science degree with a major in information technology, students must complete a minimum of 128 credits, the general education requirement (also see Undergraduate degree requirements) and meet the following requirements:

General education (excluding math and science) -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and science -- 16 credits

- MTH 154 - Calculus I (4) or MTH 122 - Calculus for the Social Sciences (4)
- STA 227 - Introduction to Statistical Methods (4)
- APM 163 - Mathematics for Information Technology (4)
- Approved science elective (4)*

Approved science electives

*Approved science electives for information technology majors are: biology courses numbered BIO 111 or BIO 113; CHM 144 and CHM 147; PHY 151 and PHY 110; ENV 308.

Information technology core -- 22 credits

- CIT 120 - Introduction to Computing and Programming using Excel (4)
- CIT 131 - Computer Programming (4)
- CIT 230 - Introduction to Object-Oriented Programming (4)
- CIT 247 - Introduction to Computer Networks (4)
- CIT 252 - Interactive Web Systems (4)
- CIT 280 - Sophomore Project (2)

Required professional subjects -- 32 credits

- CIT 248 - Computer Systems (4)
- CIT 250 - Introduction to Operating Systems for System Administrators (4)
- CIT 337 - Software Engineering and Practice (4)
- CIT 345 - Database Design and Implementation (4)
- CIT 350 - Human Computer Interaction (4)
- CIT 352 - Systems Analysis (4)
- CIT 448 - Information Security Practice (4)
- CIT 480 - Senior Capstone Project (4)

Electives -- 20 credits chosen from

Choose course-work from only one of the following tracks:

System Administration Track

- CIT 348 - System Administration (4)
- CIT 349 - Advanced System Administration (4)

Bioinformatics Track

- BIO 341 - Genetics (4)
- CSE 461 - Bioinformatics (4)

Choose 4 credits of course-work from only one of the following:

- CIT 496 - Internship (4) or
- CIT 497 - Industrial Project (4) or
- CIT 498 - Undergraduate Research (4)

Choose two of the following courses in management and communications from the following:

- CIT 450 - CIT Project Management (4)
- COM 202 - Group Dynamics and Communication (4)
- COM 304 - Communication in Organizations (4)

Free electives -- 10 credits

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 within each group: namely, mathematics and science, core subjects and professional subjects. Within professional subjects, at most two grades below 2.0 are permitted, at most two different courses may be repeated and a total of three attempts is permitted.

Sample information technology schedule

Students entering the School of Engineering and Computer Science with the required background may follow a schedule such as the one indicated below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program.

Freshman year

Fall semester -- 16 credits

- MTH 122 - Calculus for the Social Sciences (4) or MTH 154 - Calculus I (4)
- CIT 131 - Computer Programming (4)
- WRT or general education (8)

Winter semester -- 16 credits

- CIT 120 - Introduction to Computing and Programming using Excel (4)
- CIT 230 - Introduction to Object-Oriented Programming (4)
- General education (4)
- STA 227 - Introduction to Statistical Methods (4)

Sophomore year

Fall semester -- 16 credits

- APM 163 - Mathematics for Information Technology (4)
- CIT 247 - Introduction to Computer Networks (4)
- CIT 252 - Interactive Web Systems (4)

- General education (4)

Winter semester -- 16 credits

- CIT 248 - Computer Systems (4)
- CIT 280 - Sophomore Project (2)
- Science elective (4)
- General education (4)
- Free elective (2)

Junior year

Fall semester -- 16 credits

- CIT 250 - Introduction to Operating Systems for System Administrators (4)
- CIT 337 - Software Engineering and Practice (4)
- CIT 350 - Human Computer Interaction (4)
- General education (4)
- IT track elective I (4)

Winter semester -- 16 credits

- CIT 345 - Database Design and Implementation (4)
- CIT 352 - Systems Analysis (4)
- IT track elective II (4)
- General education (4)

Senior year

Fall semester -- 16 credits

- Management and Communications course I (4)
- CIT 496 - Internship or CIT 497 - Industrial Project or CIT 498 - Undergraduate Research (4)
- General education (4)
- Free elective (4)

Winter semester -- 16 credits

- CIT 448 - Information Security Practice (4)
- Management and Communications course II (4)
- CIT 480 - Senior Capstone Project (4)
- Free elective (4)

Computer Science, Computing or Information Technology minors

The School of Engineering and Computer Science offers three minors, computer science minor, computing minor, and information technology minor, to students with majors other than computer science, computer engineering, and information technology.

Computer science minor

The minor in computer science is suitable for students with a major in engineering, mathematics, physics, chemistry or biology, who may wish to emphasize numerical, scientific and engineering aspects of computing. At least 12 of these credits must be taken at Oakland University. A grade of 2.0 is required in each course for this minor. Students must earn a minimum of 20 credits, including the following courses:

- CSE 142 - Introduction to C Programming and Unix (4)
- CSE 230 - Object-Oriented Computing I (4)
- CSE 231 - Object-Oriented Computing II (4)
- And 8 credits minimum of CSE courses numbered 200 or above.

Computing minor

The minor in computing is suitable for students with a major in liberal arts or business, who may wish to emphasize non-numerical and symbolic data processing aspects of computing and information technology.

Students must earn a minimum of 20 credits as follows for a minor in Computing

- CSE 120 - Introduction to Computing and Programming using Excel (4)
- CSE 130 - Introduction to Computer Programming (4)

and three courses chosen from

- CSE 247 - Introduction to Computer Networks (4)
- CSE 252 - Interactive Web Systems (4)
- CSE 230 - Object-Oriented Computing I (4)

Note

At least 12 of these credits must be taken at Oakland University. An average grade of at least 2.0 is required in courses counted toward this minor.

Students must obtain permission from the Department of Computer Science and Engineering in order to register for CSE courses at the 300 and 400 levels.

Information technology minor

The minor in information technology are suitable for students with a major in liberal arts or business, who may wish to emphasize non-numerical and symbolic data processing aspects of computing and information technology.

For an IT minor, students must earn a minimum of 20 credits in the following courses

- CIT 120 - Introduction to Computing and Programming using Excel (4)
- CIT 122 - Computer Animation (4)
- CIT 130 - Introduction to Computer Programming (4)

and any two courses from

- CIT 230 - Introduction to Object-Oriented Programming (4)
- CIT 247 - Introduction to Computer Networks (4)
- CIT 252 - Interactive Web Systems (4)

Note

At least 12 of these credits must be taken at Oakland University. An average grade of at least 2.0 is required in courses counted toward this minor.
Students must obtain permission from the Department of Computer Science and Engineering in order to register for CSE courses at the 300 and 400 levels.

Department of Electrical and Computer Engineering

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Department Website: oakland.edu/ece/

Chairperson: *Daniel N. Aloi*

Professors emeriti: *Richard E. Haskell, Naim A. Kheir, Keith R. Kleckner, Tung H. Weng, Howard R. Witt*

Professors: *Hoda S. Abdel-Aty-Zohdy, Daniel N. Aloi, Ka C. Cheok, Manohar Das, Subramaniam Ganesan, Edward Y.L. Gu, Andrzej Rusek, Mohamed A. Zohdy*

Associate professors: *Darrin Hanna, Jia Li, Hongwei Qu, Osamah Rawashdeh*

Assistant professors: *Shadi Alawneh, Seyed Ali Arefifar, Brian Dean, Daniel Llamocca, Jing Tang*

Special Instructor: *Khalid Mirza*

Adjunct professor: *Mutasim Salman*

Adjunct associate professor: *Anson Lee*

Adjunct assistant professor: *Randy Graca*

Advisory Board

The Electrical and Computer Engineering External Advisory and Development Board assists the department in enhancing its educational and research programs and ensuring their relevance to current and emerging technological needs.

Board members are:

Dona Burkard, Research and Innovation Center - Project Manager, Ford Motor Company
Anthony D. Cooprider, Ph.D., Senior Technical Leader, Global IEEE, Ford Motor Company
Housein Dourra, Ph.D., Technical Fellow, Fiat Chrysler Automobiles
Gerald Grzadzinski, (retired) Senior Technical Manager, Fiat Chrysler Automobiles
Mike Hichme, Engineering Group Manager, General Motors Corporation
Greg Hudas, Ph.D., Program Manager, Academic Programs, US Army RDECOM-TARDEC
William H. Mattingly, Vice President, Business Development, Automotive System Integrators
George Saikialis, Ph.D., Senior Director and Lab Manager, Automotive Products Research, Hitachi America Ltd.
Chris Van Dan Elzen, Product Manager, Magna Electronics, Inc.

General Information

The Department of Electrical and Computer Engineering carries out the mission of the School of Engineering and Computer Science by offering separate undergraduate majors in Electrical Engineering and Computer

Engineering. The department also offers masters programs in Electrical and Computer Engineering, Systems Engineering, Mechatronics, and Embedded Systems, as well as a Ph.D. program in Electrical and Computer Engineering. The undergraduate programs in the Department of Electrical and Computer Engineering are accredited by the Computing Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET).

Requirements for the major in Computer Engineering, B.S.E. program

Major technological advances are being made in the computer field at a rapid pace, and it is essential that computer engineering students are not only aware of these advances but prepared to work in this changing environment. Students should gain a strong background in the fundamentals of computer engineering and develop a willingness to accept and thrive on change.

The computer engineering program at Oakland University is designed to provide students with the basic knowledge and skills needed to function effectively in computer-related activities in the years ahead. It is unique in offering a focus on wireless embedded systems. A balance between theoretical and practical experience and an emphasis on the software and hardware aspects of computers are key elements to the university's computer engineering major. The BSE in Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

The undergraduate program in Computer Engineering will provide educational experiences aimed toward producing graduates who will:

- Become successful practitioners in an engineering or related career.
- Pursue graduate study and/or continuing education opportunities in electrical engineering, computer engineering, or other related disciplines.
- Demonstrate leadership and excel in multi-disciplinary and multi-cultural environments.
- Function as responsible members of society with an awareness of the ethical and social ramifications of their work.

Course requirements (minimum of 129 total credits)

To earn the degree of Bachelor of Science in Engineering with a major in computer engineering, students must complete a minimum of 129 credits and satisfy the writing requirements. They must meet the following requirements: (also see Undergraduate degree requirements)

General education (excluding math and science) - 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and science -- 32 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4)
- CHM 143 - Chemical Principles (4) (or [CHM 144 (4) and CHM 147 (1)] or CHM 162 (4))
- PHY 161 - Fundamentals of Physics I (4) *
- PHY 162 - Fundamentals of Physics II (4) *

Select one course from the list below

- APM 332 - Applied Matrix Theory (4)
- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 463 - Graph Theory and Combinatorial Mathematics (4)
- APM 477 - Computer Algebra (4)
- BIO 111 - Biology I (4)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- MOR 242 - Elementary Models in Operations Research (4)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 371 - Foundations of Modern Physics (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- MTH 352 - Complex Variables (4)
- Or others by approval by petition to the SECS Committee on Academic Standing.

Engineering core -- 21 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)

Required professional subjects -- 36 credits

- CSE 229 - Introduction to Data Structures in C (4)
- CSE 364 - Computer Organization (4)
- ECE 276 - Electric Circuits (4)
- ECE 278 - Digital Logic Design (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 335 - Signals and Systems (4)
- ECE 378 - Computer Hardware Design (4)
- ECE 470 - Microprocessors-based Systems Design (4)
- ECE 491 - Senior Design (4)

Professional electives – 12 credits

Any set of 300-, 400-, or 500-level engineering courses, computer science courses, concentrations (see below), or approved mathematics and science electives. Of the 12 credits, at least 4 must be from a 400- or 500-level course. Suggested concentration sets of courses are provided below:

1. Communication and networking

- ECE 345 - Electromagnetics I (4)
- ECE 437 - Communication Systems (4)
- ECE 447 - Antennas (4)
- ECE 450 - Satellite-based Positioning System (4)

2. Microelectronics

- ECE 328 - Electronic Circuits & Devices II (4)
- ECE 484 - Electronic Materials and Devices (4)
- ECE 485 - VLSIC Design of Digital Chips (4)
- ECE 487 - Integrated Electronics (4)

3. Mechatronics

- ECE 351 - Electrical Machines (4)
- ECE 431 - Automatic Control Systems (4)
- ECE 472 - Microcomputer-based Control Systems (4)
- ECE 475 - Automotive Mechatronics I (4)

4. Computer science

- CIT 345 - Database Design and Implementation (4)
- CSE 361 - Design and Analysis of Algorithms (4)
- CSE 450 - Fundamentals of Operating Systems (4)
- CSE 549 - Wireless and Industrial Networks (4)

Economics requirement

In addition to the requirements stated above, computer engineering students must fulfill the economics requirement. This may be met by completion of ECN 150, ECN 201, ECN 202 or ECN 210.

Performance requirements

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 within each group: namely, mathematics and science, core subjects and professional subjects. Within professional subjects, at most two grades below 2.0 are permitted; at most two different courses may be repeated, and a total of three repeat attempts is permitted.

Sample computer engineering schedule

Students entering the School of Engineering and Computer Science with the required background may follow a schedule such as the one indicated below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program.

Freshman year

Fall semester -- 17 credits

- EGR 120 - Engineering Graphics and CAD (1)
- MTH 154 - Calculus I (4)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- CHM 143 - Chemical Principles (4)
- WRT or General education

Winter semester -- 16 credits

- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- MTH 155 - Calculus II (4)
- PHY 161 - Fundamentals of Physics I (4)
- General education (4)

Sophomore year

Fall semester -- 16 credits

- EGR 250 - Introduction to Thermal Engineering (4)
- ECE 278 - Digital Logic Design (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- PHY 162 - Fundamentals of Physics II (4)

Winter semester -- 16 credits

- ECE 276 - Electric Circuits (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- General education

Junior year

Fall semester -- 16 credits

- CSE 229 - Introduction to Data Structures in C (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 378 - Computer Hardware Design (4)
- General education (4)

Winter semester -- 16 credits

- APM 263 - Discrete Mathematics (4)
- CSE 364 - Computer Organization (4)
- ECE 470 - Microprocessors-based Systems Design (4)
- General education (4)

Senior year

Fall semester -- 16 credits

- ECE 335 - Signals and Systems (4)
- Professional elective (4)
- Professional elective (4)
- General education (4)

Winter semester -- 16 credits

- ECE 491 - Senior Design (4)
- Professional elective (4)
- General education (4)
- Approved math or science elective (4)

Requirements for the major in Electrical Engineering, B.S.E. program

Electrical engineering is a broad field encompassing a number of disciplines. Oakland University's undergraduate program in electrical engineering is designed to provide students with the basic knowledge and skills for challenging careers in electrical engineering in the coming decades. The curriculum offers strong fundamentals in analog and digital circuits, communications, computers, controls, electromagnetics, electronics including VLSI systems, electronic devices, and power systems. In addition, a strong laboratory component of the program offers numerous design opportunities and allows students to relate theoretical ideas to practical problems using modern equipment and hardware/software tools. The program also provides numerous engineering design experiences. Electrical and computer engineering faculty members are engaged in research related to new developments in the

field. Their activities contribute to a well-developed, up-to-date curriculum. The BSE in Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

The undergraduate program in Electrical Engineering will provide educational experiences aimed toward producing graduates who will:

- Become successful practitioners in an engineering or related career.
- Pursue graduate study and/or continuing education opportunities in electrical engineering, computer engineering, or other related disciplines.
- Demonstrate leadership and excel in multi-disciplinary and multi-cultural environments.
- Function as responsible members of society with an awareness of the ethical and social ramifications of their work.

Course requirements (minimum of 129 total credits)

To earn the degree of Bachelor of Science in Engineering with a major in electrical engineering, students must complete a minimum of 129 credits, demonstrate writing proficiency (see Undergraduate degree requirements) and meet the following requirements:

General education (excluding math and science) -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and science -- 32 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- MTH 254 - Multivariable Calculus (4)
- CHM 143 - Chemical Principles (4) (or [CHM 144 (4) and CHM 147 (1)] or CHM 162 (4))
- PHY 161 - Fundamentals of Physics I (4)
- PHY 162 - Fundamentals of Physics II (4)

Select one course from the list below.

Students majoring in Electrical Engineering are advised to take MTH 275 to broaden their knowledge of Linear Algebra. However, students who have an explicit interest in broadening their knowledge in a specific area of math or science should select an elective from the following approved course list:

- APM 263 - Discrete Mathematics (4)
- APM 332 - Applied Matrix Theory (4)
- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 455 - Intermediate Ordinary Differential Equations (4)
- APM 463 - Graph Theory and Combinatorial Mathematics (4)
- APM 477 - Computer Algebra (4)
- BIO 111 - Biology I (4)
- BIO 341 - Genetics (4)
- BIO 351 - Neurobiology (4)

- BIO 443 - Functional Genomics and Bioinformatics (4)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- PHY 331 - Optics (4)
- PHY 361 - Mechanics I (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 371 - Foundations of Modern Physics (4)
- PHY 431 - Lasers and Applications (4)
- MTH 352 - Complex Variables (4)
- or others by approval by petition to the SECS Committee on Academic Standing.

Note
*Neither PHY 161 nor PHY 162 satisfies the university general education requirement in the natural science and technology knowledge exploration area. Credit for both PHY 151 and PHY 161 is not permitted, and credit for both PHY 152 and PHY 162 is not permitted.

Engineering core -- 21 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)

Required professional subjects -- 32 credits

- ECE 276 - Electric Circuits (4)
- ECE 278 - Digital Logic Design (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 335 - Signals and Systems (4)
- ECE 345 - Electromagnetics I (4)
- ECE 351 - Electrical Machines (4)
- ECE 328 - Electronic Circuits & Devices II (4)
- ECE 491 - Senior Design (4)

Professional electives -- 16

Electrical engineering students must select two (2) professional depth areas. In one depth area, students are required to take the key course and one of the two listed professional electives. In the other depth area, students are only required to take the key course. In addition, students must select one (1) free elective from any 400-level ECE course. Prior approval of the chairperson of the Department of Electrical and Computer Engineering is required for ECE 490, ECE 494, and any 500-level course. The professional depth areas are:

1. Communications

Key course:

- ECE 437 - Communication Systems (4)

Electives:

- ECE 438 - Fundamentals of Digital Signal Processing (4)
- ECE 450 - Satellite-based Positioning System (4)

2. Computer Engineering

Key course:

- ECE 470 - Microprocessors-based Systems Design (4)

Electives:

- CSE 364 - Computer Organization (4)
- ECE 378 - Computer Hardware Design (4)

3. Control systems

Key course:

- ECE 431 - Automatic Control Systems (4)

Electives:

- ECE 433 - Digital Control Systems (4)
- ECE 472 - Microcomputer-based Control Systems (4)

4. Electromagnetics

Key course:

- ECE 443 - Electromagnetics II (4)

Electives:

- ECE 447 – Antennas (4)
- ECE 448 - Electromagnetic Compatibility (4)

5. Electronics

Key course:

- ECE 485 - VLSIC Design of Digital Chips (4)

Electives:

- ECE 484 - Electronic Materials and Devices (4)
- ECE 487 - Integrated Electronics (4)

6. Industrial Robotics

Key course:

- ECE 423 - Robotic Systems and Control (4)

Electives:

- ECE 439 - Machine Vision (4)
- ECE 475 - Automotive Mechatronics I (4)

7. Power systems

Key course:

- ECE 429 - Introduction to Power Electronics (4)

Electives:

- ECE 458 - Electrical Energy Systems (4)
- ECE 477 - Electric and Hybrid Drive Systems (4)

Economics requirement

In addition to the requirements stated above, electrical engineering students must fulfill the economics requirement. This may be met by completion of ECN 150, ECN 201, ECN 202 or ECN 210.

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 within each required group: namely, mathematics and science, core subjects and professional subjects.

Within professional subjects, at most two grades below 2.1 are permitted, at most two different courses may be repeated and a total of three attempts is permitted.

Sample electrical engineering program schedule

Students entering the School of Engineering and Computer Science with the required background may follow a schedule such as the one indicated below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program.

Freshman year

Fall semester -- 17 credits

- EGR 120 - Engineering Graphics and CAD (1)
- MTH 154 - Calculus I (4)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- CHM 143 - Chemical Principles (4)
- WRT or general education (4)

Winter semester -- 16 credits

- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- MTH 155 - Calculus II (4)
- PHY 161 - Fundamentals of Physics I (4)
- General education (4)

Sophomore year

Fall semester -- 16 credits

- ECE 276 - Electric Circuits (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- PHY 162 - Fundamentals of Physics II (4)
- General education (4)

Winter semester -- 16 credits

- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- General education (4)

Junior year

Fall semester -- 16 credits

- MTH 254 - Multivariable Calculus (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 335 - Signals and Systems (4)
- General education (4)

Winter semester -- 16 credits

- ECE 328 - Electronic Circuits & Devices II (4)
- ECE 345 - Electromagnetics I (4)
- ECE 351 - Electrical Machines (4)
- ECE 278 - Digital Logic Design (4)

Senior year

Fall semester -- 16 credits
- Approved math/science elective (4)
- Key course-area 1 (4)
- Key course-area 2 (4)
- General education (4)

Winter semester -- 16 credits
- General education (4)
- Elective-area 1 (4)
- Elective-area 2 (4)
- ECE 491 - Senior Design (4)

Department of Industrial and Systems Engineering

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FAX: (248) 370-4625
Department Website: oakland.edu/ise

Chairperson: *Robert P. Van Til*

Professors: *Michael P. Polis, Barbara Oakley, Sankar Sengupta, Robert P. Van Til*

Assistant Professors: *Vijitashwa Pandey, Megan O. Conrad Sczygielski*

Adjunct Assistant Professor: *Patrick Hillberg*

Visiting Instructor: *William Edwards*

Advisory Board

The Industrial and Systems Engineering External Advisory and Development Board assists the department in enhancing its educational and research programs and ensuring their relevance to current and emerging technological needs. Board members are:

Kerry Coran, Lean Practitioner, Genesys Health System
Kevin Dahm, Supervising Engineer, DTE Energy Co.
Greggory R. Garrett, CEO & Managing Director, CGS Advisors LLC
Cameron T. Hill, Workplace Organization Lead, World Class Manufacturing, Fiat Chrysler Automobiles
Patrick Hillberg, Solution Architect, Siemens PLM Corp.
Doneen McDowell, Executive Director, Global/GMNA Manufacturing Engineering - Vehicle Systems, General Motors Corp.
Steve Savoie, Head of Industrial Engineering, Advanced Manufacturing Engineering, Fiat Chrysler Automobiles
Michael Sigelko, Chief Body Architect, General Motors Corp.
Bryan Talbert, Container Quality & Procurement Support Manager, General Motors Corp
Anthony Verrino, Head, Stamping Manufacturing Control Operations, Fiat Chrysler Automobiles
Gary Warren, Operations Manager, Rayconnect Inc.

Mission

The Department of Industrial and Systems Engineering carries out the mission of the School of Engineering and Computer Science by offering:

- an undergraduate major in Industrial and Systems Engineering;
- a master's degree program in Industrial and Systems Engineering;
- a master's degree program in Engineering Management with the cooperation of the School of Business Administration;
- a graduate certificate program in Productivity Improvement.

Also, the department actively participates in the school-wide Ph.D. program in Systems Engineering.

Accreditation

The undergraduate programs in the Industrial and Systems Engineering Department are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Requirements for the major in Industrial and Systems Engineering, B.S.E. program

The profession of Industrial and Systems Engineering is about choices. Other engineering disciplines apply skills to very specific areas. Industrial and Systems Engineering gives you the opportunity to work in a variety of businesses. Whether it's distributing products worldwide, manufacturing superior automobiles, or streamlining the procedures in an operating room, all of these situations share the common goal of increasing efficiencies and saving companies' money. The most distinctive aspect of Industrial and Systems Engineering is the career and job flexibility it offers. Industrial and Systems Engineers work in various industries including automotive, energy, health care, advanced manufacturing, defense, logistics, service, aerospace, entertainment and others. The BSE in Industrial and Systems Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

The educational objectives of the Industrial and Systems Engineering B.S.E. program are to produce graduates who will:

- design, develop and implement systems which integrate people, materials, equipment, information and energy;
- operate effectively in dynamic and diverse organizations;
- demonstrate a professional attitude, integrity and commitment to life-long learning in their work.

Course requirements (128 total credits)

In order to earn the degree of Bachelor of Science in Engineering with a major in industrial and systems engineering, students must complete a minimum of 128 credits, satisfy all general education and SECS degree requirements, as well as meet the following course requirements:

1) General education courses (excluding mathematics and science) - 28 credits

In order to satisfy both general education and other program requirements, in the following general education areas students should select the from the listed courses:

- Western Civilization - PHL 104
- Social Science - ECN 150, ECN 201, ECN 202, or ECN 210
- Writing Foundations - WRT 160
- Formal Reasoning - MTH 154
- Natural Sciences - EGR 240 or EGR 250
- Knowledge Applications - MTH 155
- Capstone and Writing Intensive in the Major - ISE 491

In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with a SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

2) Mathematics and science courses – minimum of 32 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- APM 263 - Discrete Mathematics (4) or MTH 254 - Multivariable Calculus (4)
- CHM 143 - Chemical Principles (4) or CHM 144 (4) and CHM 147 (1)

- PHY 161 - Fundamentals of Physics I (4) or PHY 151 (5)
- PHY 162 - Fundamentals of Physics II (4) or PHY 152 (5)
- An approved math or science elective from the list below (4)

3) Engineering core courses – 21 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)

4) Professional courses – 47 credits

Required – 35 credits

- ISE 318 - Engineering Statistics and Economic Analysis (4)
- ISE 330 - Engineering Operations Research (3)
- ISE 341 - Ergonomics and Work Design (4)
- ISE 469 - Computer Simulation of Discrete Event Systems (4)
- ISE 483 - Production Systems and Workflow Analysis (4)
- ISE 484 - Flexible and Lean Manufacturing Systems (4)
- ISE 485 - Statistical Quality Analysis (4)
- ISE 487 - Foundations of Systems Engineering I (4)
- ISE 491 - Senior Design (4)

Professional electives – 12 credits with at least 8 credits from Group A

Group A

- ISE 410 - Supply Chain Modeling and Analysis (4)
- ISE 422 - Robotic Systems (4)
- ISE 430 - Engineering Operations Research - Stochastic Models (4)
- ISE 441 - Human Factors Engineering (4)
- ISE 450 - Fundamentals of Energy Management (4)
- ISE 461 - PLM Applications - Product Data Management (2)
- ISE 462 - PLM Applications - Robotics (2)
- ISE 463 - PLM Applications - Ergonomics (2)
- ISE 464 - Design for Manufacturing and Assembly Analysis (4)
- ISE 466 - PLM Applications - Change Management (2)
- ISE 480 - E-Commerce and ERP (4)
- ISE 482 - Engineering Processes Decisions Using ERP (4)
- ISE 488 - Foundations of Systems Engineering II (4)
- ISE 495 - Special Topics (2 TO 4)
- ME 474 - Manufacturing Processes (4)

Group B

- ISE 490 - Senior Project (2 to 4) *
- ISE 494 - Independent Study (2 to 4) *
- ME 372 - Properties of Materials (4)
- HRD 404 - Lean Kaizen in Organizations (4)
- *This course cannot be taken without prior written permission from the Chairperson of the Industrial and

Systems Engineering Department.

TOTAL CREDITS – 128

List of approved math or science electives

Select one course from the following list. It is recommended that students discuss their educational and career interests with an ISE Dept. faculty member or a SECS Undergraduate Academic Adviser prior to selecting this course.

- APM 263 - Discrete Mathematics (4)
- APM 332 - Applied Matrix Theory (4)
- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 463 - Graph Theory and Combinatorial Mathematics (4)
- APM 477 - Computer Algebra (4)
- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 205 - Human Anatomy (4)
- BIO 207 - Human Physiology (4)
- BIO 341 - Genetics (4)
- MTH 254 - Multivariable Calculus (4)
- MTH 275 - Linear Algebra (4)
- MTH 352 - Complex Variables (4)
- PHY 325 - Biological Physics (4)
- PHY 326 - Medical Physics (4)
- STA 402 - Applied Linear Models I (4)
- Other math or science course with approval by written petition to the SECS Committee on Academic Standing. Please contact a SECS Undergraduate Academic Adviser for more information.

Performance requirements

In addition to all previously stated requirements, satisfactory completion of the industrial and systems engineering program requires a grade point average of at least 2.0 within each of the following three groups of courses: mathematics and science, engineering core, and professional subjects. Within professional subjects, at most two grades below 2.0 are permitted, at most two different courses may be repeated, and a total of three repeat attempts is permitted.

Ethics requirement

All industrial and systems engineering students must also fulfill the ethics requirement. This requirement may be met by completion of PHL 104.

Economics requirement

All industrial and systems engineering students must also fulfill the economics requirement. This requirement may be met by completion of ECN 150, ECN 201, ECN 202 or ECN 210.

General business minor

Students may wish to augment their degree with a minor in general business. This may be done by completing 19-23 credits specified by the School of Business Administration (see Minors section in School of Business Administration portion of this catalog). Credits from the minor may be used to satisfy the social science general education requirement and the economics requirement.

Sample industrial and systems engineering schedule

Industrial and systems engineering students with the required background may follow a schedule such as the one below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program. All students should contact the SECS Academic Advising Office before completing their schedule.

Freshman year

Fall semester -- 16 credits

- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- MTH 154 - Calculus I (4)
- CHM 143 - Chemical Principles (4)
- General education course (4)

Winter semester -- 17 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- MTH 155 - Calculus II (4)
- PHY 161 - Fundamentals of Physics I (4)
- General education course (4)

Sophomore year

Fall semester -- 16 credits

- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- PHY 162 - Fundamentals of Physics II (4)
- General education course (4)

Winter semester -- 16 credits

- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- APM 263 - Discrete Mathematics (4) or MTH 254 - Multivariable Calculus (4)
- General education course (4)

Junior year

Fall semester -- 16 credits

- ISE 318 - Engineering Statistics and Economic Analysis (4)
- ISE 341 - Ergonomics and Work Design (4)
- General education course (4)
- Math or science elective course (4)

Winter semester -- 15 credits

- ISE 330 - Engineering Operations Research (3)
- ISE 469 - Computer Simulation of Discrete Event Systems (4)
- ISE 484 - Flexible and Lean Manufacturing Systems (4)
- General education course (4)

Senior year

Fall semester -- 16 credits

- ISE 483 - Production Systems and Workflow Analysis (4)
- Professional elective course(s) (one 4 credits or two 2 credits)

- Professional elective course(s) (one 4 credits or two 2 credits)
- General education course (4)

Winter semester -- 16 credits

- ISE 485 - Statistical Quality Analysis (4)
- ISE 487 - Foundations of Systems Engineering I (4)
- ISE 491 - Senior Design (4)
- Professional elective course (4) (one 4 credits or two 2 credits)

Department of Mechanical Engineering

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Department Website: http://www.oakland.edu/secs/me

Chairperson: *Brian P. Sangeorzan*

Professors emeriti: *Robert Edgerton, Michael Y.Y. Hung, Gilbert L. Wedekind*

Professors: *Gary C. Barber, Randy Gu, Laila Guessous, Keyu Li, Zissimos P. Mourelatos, Sayed Nassar, Brian P. Sangeorzan, Lianxiang Yang, Qian Zou*

Associate professors: *Yin-Ping Chang, Sergey Golovashchenko, Ching L. Ko, Krzyszto Kobus, Michael A. Latcha, James D. Schall, Xia Wang*

Assistant professor: *Dan DelVescovo, Jonathan Maisonneuve, Peng Zhao*

Special Instructors: *Jim Leidel, Zhijun Wu*

Adjunct professors: *Ismat Abu-Isa, Alex Alkidas, Dennis Corrigan, Yung-Li Lee, Turgay Bengisu*

Advisory Board

The Mechanical Engineering Advisory Board assists the department in enhancing its educational and research programs and ensuring their relevance to current and emerging technological needs. Board members are:

Ray Kuczera, Ph.D., Vice President of Engineering, GKN Driveline
Yung-Yung-Li Lee, Ph.D., Senior Technical Specialist, Fiat Chrysler Automobiles
Yucong Wang, Ph.D., Manager, Department of Materials Technology, General Motors Powertrain
Casilda de Benito, Ph.D., Innovation Manager, Fiat Chrysler Automobiles
David Lamb, Ph.D., Subject Technical Expert, Modeling and Simulation, TARDEC
Ren-Jye Yang, Ph.D., Senior Tech Leader, Optimization and Robustness, Ford
Rohit Paranjpe, Ph.D., Director, Powertrain Virtual Analysis, Fiat Chrysler Automobiles
Dennis Corrigan, Ph.D., Chief Technology Officer, ZAF Energy Systems Inc.
David Sonntag, MSc., Manager of Capital Projects, Detroit Edison Company

General Information

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. The department also offers a master's program in mechanical engineering and a Ph.D. program in mechanical engineering. The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Requirements for the major in mechanical engineering, B.S.E. program

The field of mechanical engineering offers career opportunities in areas such as design, analysis, test development, research and the manufacturing of various products. Oakland University's mechanical engineering program provides students with a foundation in the fundamental concepts and principles associated with mechanics of solids, thermodynamics, fluid and thermal energy, materials, manufacturing, design of mechanical systems, electrical circuits, computer programming and software utilization. A strong laboratory experience and the utilization of instrumentation and computer simulation tools are interwoven through the curriculum. The

program also provides numerous engineering design experiences. The BSE in Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Program educational objectives

The objectives of the Mechanical Engineering program are to produce graduates, who three to five years after graduation, will:

- function successfully in engineering roles within the automotive and other global industries,
- engage in lifelong learning and pursue graduate study in mechanical engineering or other post-graduate
- education,
- contribute effectively and ethically to a modern, multidisciplinary workplace, and
- demonstrate effective communication, problem-solving and teamwork skills.

Course requirements (minimum of 128 total credits)

In order to earn the degree of Bachelor of Science in Engineering with a major in mechanical engineering, students must complete a minimum of 128 credits and meet the following requirements:

General education (excluding mathematics and science) -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and science – 32 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- MTH 254 - Multivariable Calculus (4)
- CHM 143 - Chemical Principles (4) (or[CHM 144 (4) and CHM 147 (1)])
- PHY 161 - Fundamentals of Physics I (4) or [PHY 151 (4) and PHY 110 (1)]
- PHY 162 - Fundamentals of Physics II (4) or [PHY 152 (4) and PHY 111 (1)]

Select one course from the list below.

Students majoring in mechanical engineering are advised to take MTH 275 to broaden their knowledge of linear algebra. However, students who have an explicit interest in broadening their knowledge in a specific area of math or science should select and elective from the following approved course list:

- APM 332 - Applied Matrix Theory (4)
- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- BIO 111 - Biology I (4)
- PHY 325 - Biological Physics (4)
- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 371 - Foundations of Modern Physics (4)
- MTH 275 - Linear Algebra (4)
- MTH 352 - Complex Variables (4)
- Other courses approved by petition to the SECS Committee on Academic Standing.

Engineering core -- 21 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)

Required professional subjects -- 35 credits

- ME 308 - Computer-Aided Design (3)
- ME 322 - Engineering Mechanics (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)
- ME 361 - Mechanics of Materials (4)
- ME 372 - Properties of Materials (4)
- ME 421 - Vibrations and Controls (4)
- ME 486 - Mechanical Systems Design (4)
- ME 456 - Energy Systems Analysis and Design (4) (or ME 482 - Fluid and Thermal Systems Design (4))
- ME 492 - Senior Mechanical Engineering Design Project (4) (or ME 490 (3 to 4)*)

Note

*ME 490 requires approval of project proposal by the Mechanical Engineering Department. If taken in place of ME 492, it must be team-based.

Professional electives --12 credits

Mechanical engineering students must complete at least three (3) additional 400- or 500-level (must have instructors permission to take 500- level courses) courses with an ME designation or other approved 400-level engineering courses with an ECE or ISE designation. Students interested in broadening their knowledge in a specific area of mechanical engineering should elect sequences of courses as described in the specialized professional depth areas listed below:

1. Energy, fluid and thermal systems depth area. Includes courses in the fluid and thermal energy transport area.

Recommended fundamental subjects

- ME 438 - Fluid Transport (4)
- ME 448 - Thermal Energy Transport (4)

Other relevant courses

- ME 454 - Alternative Energy Systems (4)
- ME 456 - Energy Systems Analysis and Design (4)
- ME 457 - Internal Combustion Engines I (4)
- ME 482 - Fluid and Thermal Systems Design (4)

2. Computer-aided design depth area. Includes courses in the computer-aided design (CAD) and analysis area.

Recommended fundamental subjects

- ME 487 - Mechanical Computer-Aided Engineering (4)
- ME 488 - Mechanical Computer-Aided Manufacturing (4)

3. Automotive engineering depth area. Includes courses with an automotive engineering emphasis area with two possible areas of specialty: automotive structures or internal combustion engines.

Recommended fundamental subjects: Automotive Structures Specialty

- ME 461 - Analysis and Design of Mechanical Structures (4)
- ME 484 - Vehicle Dynamics (4)

Or

Recommended fundamental subjects: Internal Combustion Engines Specialty

- ME 456 - Energy Systems Analysis and Design (4)
- ME 457 - Internal Combustion Engines I (4)

Other relevant courses

- ME 423 - Acoustics and Noise Control (4)
- ME 438 - Fluid Transport (4)
- ME 448 - Thermal Energy Transport (4)
- ME 467 - Optical Measurement and Quality Inspection (4)
- ME 487 - Mechanical Computer-Aided Engineering (4)
- ME 489 - Fasteners and Bolted Joints (4)
- ECE 431 - Automatic Control Systems (4)
- ECE 473 - Automotive Electronics (4)
- ECE 475 - Automotive Mechatronics I (4)

4. Manufacturing engineering depth area. This depth area includes courses in the manufacturing area.

Recommended fundamental subjects

- ME 472 - Materials Properties and Processes (4)
- ME 474 - Manufacturing Processes (4)

Other relevant courses

- ME 467 - Optical Measurement and Quality Inspection (4)
- ME 473 - Flexible and Lean Manufacturing Systems (4)
- ME 478 - Robotic Systems (4)
- ME 488 - Mechanical Computer-Aided Manufacturing (4)
- ECE 431 - Automatic Control Systems (4)
- ISE 484 - Flexible and Lean Manufacturing Systems (4)
- ISE 485 - Statistical Quality Analysis (4)

5. Materials engineering depth area. This depth area includes courses in the areas of basic and advanced materials, plastics and composites manufacturing

Recommended fundamental subjects

- ME 443 - Polymeric Materials (4)
- ME 472 - Materials Properties and Processes (4)
- ME 544 - Plastics Processing Engineering (4)

6. Nuclear engineering depth area. This depth area includes courses in the nuclear engineering area.

Required fundamental subjects

- ME 448 - Thermal Energy Transport (4)
- ME 456 - Energy Systems Analysis and Design (4) (ME 456 (4) could be taken as part of the required professional subjects)
- ME 479 - Fundamentals of Nuclear Engineering (3)
- ME 480 - Nuclear Reactors and Power Plants (3)
- PHY 318 - Nuclear Physics Laboratory (2) (PHY 318 (2) requires ME 479 (3) as a pre or co-requisite)

Economics requirement

In addition to the requirements stated above, mechanical engineering students must fulfill the economics requirement. This may be met by completion of ECN 150, ECN 202, ECN 201 or ECN 210.

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 within each group: namely, mathematics and science, core subjects, and professional subjects. Within professional subjects, at most two grades below 2.0 are permitted, at most two different courses may be repeated and a total of three attempts are permitted.

Sample mechanical engineering schedule

Students entering the School of Engineering and Computer Science with the required background may follow a schedule such as the one indicated below. However, students will need additional time to complete the program if they do not have the required background upon entrance to the program.

Freshman year

Fall semester -- 17 total credits

- EGR 120 - Engineering Graphics and CAD (1)
- MTH 154 - Calculus I (4)
- CHM 143 - Chemical Principles (4)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- General education (4)

Winter semester -- 16 total credits

- MTH 155 - Calculus II (4)
- PHY 161 - Fundamentals of Physics I (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- General education (4)

Sophomore year

Fall semester -- 16 total credits

- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- PHY 162 - Fundamentals of Physics II (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- General education (4)

Winter semester -- 16 total credits

- MTH 254 - Multivariable Calculus (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- General education (4)

Junior year

Fall semester -- 16 total credits

- ME 322 - Engineering Mechanics (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)
- ME 372 - Properties of Materials (4)
- General education (4)

Winter semester -- 15 total credits

- ME 308 - Computer-Aided Design (3)
- ME 361 - Mechanics of Materials (4)
- Professional elective (4)
- Science elective (4)

Senior year

Fall semester -- 16 total credits

- ME 421 - Vibrations and Controls (4)
- Two professional subjects (required or elective) (8)
- General education (4)

Winter semester -- 16 total credits

- ME 492 - Senior Mechanical Engineering Design Project (4)
- ME 486 - Mechanical Systems Design (4)
- One professional subject (required or elective) (4)
- General education (4)

Engineering Sciences Programs

Bioengineering

Coordinators: *Darrin Hanna (SECS) with Shaleish Lal (Biological Sciences)*

Advisers: *Mohammad Siadat (Engineering), Shaleish Lal (Biological Sciences)*

Steering Committee: *Mohammad Siadat (Engineering), Shaleish Lal, chair (Biological Sciences), Charles Lindemann (Biological Sciences), Xia Wang (Engineering)*

The program in bioengineering, offered jointly by the School of Engineering and Computer Science and the College of Arts and Sciences, leads to the Bachelor of Science degree. It combines training in biology with depth in either computation or engineering. Students should consult with advisers for the majors to be certain they are on track for all requirements.

Requirements for the major in bioengineering, B.S. program

Course requirements (minimum of 129 total credits)

In order to earn the degree of Bachelor of Science with a major in bioengineering, students must complete a minimum of 129 credits, satisfy the general education requirements (see SECS Degree Requirements) and meet the following requirements:

General education -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Core courses -- 86 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- MTH 254 - Multivariable Calculus (4)
- STA 226 - Applied Probability and Statistics (4)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 201 - Introduction to Organic and Biological Chemistry (4)
- PHY 161 - Fundamentals of Physics I (4)
- PHY 162 - Fundamentals of Physics II (4)
- BIO 111 - Biology I (4)
- BIO 113 - Biology II (4)
- BIO 116 - Biology Laboratory (1)
- BIO 321 - Medical Physiology (4) (or BIO 309 (4) or BIO 319 (4))
- BIO 325 - Biochemistry I (4)
- BIO 341 - Genetics (4)
- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)

- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- EGB 390 - Introduction to Engineering Biology (3)
- EGB 490 - Research Project/Capstone Design (3)

Professional subjects -- 15-16 credits

Professional track 1: bioinformatics
Choose four courses including BIO 443 (4) and CSE 461 (4)

- CSE 230 - Object-Oriented Computing I (4)
- CSE 361 - Design and Analysis of Algorithms (4)
- BIO 443 - Functional Genomics and Bioinformatics (4)
- CSE 345 - Database Design and Implementation (4)
- CSE 461 - Bioinformatics (4)

Professional track 2: biomedical and biophysical engineering
Choose four courses

- PHY 325 - Biological Physics (4)
- ME 361 - Mechanics of Materials (4)
- ME 456 - Energy Systems Analysis and Design (4) (or PHY 421 (4))
- ME 461 - Analysis and Design of Mechanical Structures (4) (requires ME 361 (4))
- ME 467 - Optical Measurement and Quality Inspection (4)

Professional track 3: computational biology
Required

- MTH 275 - Linear Algebra (4)
- APM 405 - Special Topics (2 or 4)
- BIO 482 - Topics in Evolutionary Biology (3) (or BIO 483 (3))

Electives (choose one)

- APM 357 - Elements of Partial Differential Equations (4)
- APM 433 - Numerical Methods (4)
- APM 434 - Applied Numerical Methods: Matrix Methods (4)
- APM 455 - Intermediate Ordinary Differential Equations (4)

Professional track 4: electronic devices/signal analysis/bio-sensors

- ECE 276 - Electric Circuits (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- ECE 484 - Electronic Materials and Devices (4)
- PHY 405 - Special Topics (2 to 6)
- ECE 566 - Micro- and Nano-Embedded Systems (4)
- PHY 325 - Biological Physics (4)
- CHM 427 - Electrochemistry (3)

Professional track 5: molecular engineering biology
Choose four (Choice must include BIO 319 (4), BIO 423 (4) and BIO 441 (4)):

- PHY 325 - Biological Physics (4)
- BIO 309 - Biology of the Cell (4)
- BIO 319 - General Microbiology (4)
- BIO 323 - Developmental Biology (4)
- BIO 423 - Immunology (4)

- BIO 441 - Microbial Biotechnology (4)
- BIO 421 - Medical Microbiology (4)

Performance requirements and additional general education notes

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the courses taken to satisfy the engineering, chemistry, and mathematics and physics requirements. Students in this program are not required to complete the College of Arts and Sciences exploratory requirements, but must complete the general education requirements including capstone and writing intensive courses. In addition, this program requires an average grade of 2.0 in courses taken to satisfy the biology, chemistry, mathematical sciences and engineering requirements.

Engineering Chemistry

Coordinators: *James D. Schall (SECS), Jennifer Tillinger (Biological Sciences)*

The program in engineering chemistry, which is offered by the Department of Chemistry in cooperation with the School of Engineering and Computer Science, leads to the Bachelor of Science degree with a major in engineering chemistry. It is intended for well-qualified students who seek a basic preparation in engineering along with a highly professional chemistry program.

Requirements for the major in engineering chemistry, B.S. program

Course requirements (minimum of 128 total credits)

To earn the degree of Bachelor of Science with a major in engineering chemistry, students must complete a minimum of 128 credits, satisfy writing requirement (also see Undergraduate degree requirements) and meet the following requirements:

General education -- 28 credits (excluding mathematics and science)

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and physics -- 24 credits

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4) (or APM 257 (3))
- PHY 161 - Fundamentals of Physics I (4)
- PHY 162 - Fundamentals of Physics II (4)

Chemistry -- 40 credits

- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1); (or CHM 167 (5) - CHM 168 (5), (or CHM 162 (4) - CHM 163 (4)).
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- CHM 325 - Analytical Chemistry (4)

- CHM 342 - Physical Chemistry I (4)
- CHM 343 - Physical Chemistry II (4)
- CHM 348 - Physical Chemistry Laboratory (2)
- CHM 471 - Structure and Synthesis of Polymers (3)
- One lecture or laboratory course above CHM 400 (3)

Engineering core -- 33 credits

Required courses:

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)

Plus 8 credits from:

- ME 438 - Fluid Transport (4)
- ME 448 - Thermal Energy Transport (4)
- ME 456 - Energy Systems Analysis and Design (4)
- ME 457 - Internal Combustion Engines I (4)
- ME 482 - Fluid and Thermal Systems Design (4)
- ECE 431 - Automatic Control Systems (4)

Capstone Course -- 3-4 credits

- ME 492 - Senior Mechanical Engineering Design Project (4) or
- CHM 491 - Independent Research (3)

Performance requirements and additional general education notes

Students in this program are not required to complete the College of Arts and Sciences college exploratory requirements. Students must complete the university's general education, including the capstone course of either CHM 491 or ME 492 (see Undergraduate Degree Requirements). In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the courses taken to satisfy the engineering and chemistry requirements and in the courses prescribed for the mathematics, physics and computer science requirements.

Engineering Physics

Coordinators: *Hoda Abdel-Aty-Zohdy (SECS) with, Andrei Slavin (Physics)*

The program in engineering physics is offered jointly by the School of Engineering and Computer Science and the College of Arts and Sciences. This program blends the pure and applied, and the theoretical and practical aspects of scientific knowledge into a meaningful educational experience. Through the university's cooperative education program, engineering physics students may opt to combine a relevant work experience with their formal education.

Requirements for the major in engineering physics, B.S. program

Course requirements (minimum of 128 total credits)

To earn the degree of Bachelor of Science with a major in engineering physics, students must complete a minimum of 128 credits, demonstrate writing proficiency (see Undergraduate degree requirements) and meet the following requirements:

General education (excluding mathematics and science) -- 28 credits

- Students are required to take PHL 104 - Introduction to Ethics in Science and Engineering to satisfy the general education requirement in Western Civilization.
- In order to graduate on-schedule without taking additional courses, it is highly recommended that students meet with an SECS Undergraduate Academic Adviser concerning the selection of all of their general education courses.

Mathematics and sciences -- 48

- MTH 154 - Calculus I (4)
- MTH 155 - Calculus II (4)
- MTH 254 - Multivariable Calculus (4)
- APM 255 - Introduction to Differential Equations with Matrix Algebra (4)
- CHM 143 - Chemical Principles (4) ; or [CHM 144 (4) and CHM 147 (1)] or CHM 162 (4)
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- PHY 317 - Modern Physics Laboratory (2)
- PHY 351 - Intermediate Theoretical Physics (4)
- PHY 361 - Mechanics I (4)
- PHY 371 - Foundations of Modern Physics (4)

Must choose one course from the list below:

- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 381 - Electricity and Magnetism (4)
- PHY 472 - Quantum Mechanics I (4)

Engineering -- 32 credits

- EGR 120 - Engineering Graphics and CAD (1)
- EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
- EGR 240 - Introduction to Electrical and Computer Engineering (4)
- EGR 250 - Introduction to Thermal Engineering (4)
- EGR 260 - Introduction to Industrial and Systems Engineering (4)
- EGR 280 - Design and Analysis of Electromechanical Systems (4)
- ECE 276 - Electric Circuits (4)
- ECE 327 - Electronic Circuits and Devices I (4)
- PHY 490 - Independent Research (3 to 6)

Professional Depth areas -- 12 credits

The following two depth areas are offered as typical. Select 12 credits from one of these. Students with different interests can construct different depth areas in consultation with the program coordinators.

Solid state physics and technology depth area

- ECE 484 - Electronic Materials and Devices (4)
- PHY 472 - Quantum Mechanics I (4)

Choose one design elective course from the list below

- ECE 378 - Computer Hardware Design (4)
- ECE 437 - Communication Systems (4)
- ECE 470 - Microprocessors-based Systems Design (4)
- ECE 487 - Integrated Electronics (4)

Applied mechanics depth area

- PHY 366 - Vibrations and Waves (4)
- ME 322 - Engineering Mechanics (4) (or ME 361)

Design elective, chosen from

- ME 456 - Energy Systems Analysis and Design (4)
- ME 461 - Analysis and Design of Mechanical Structures (4)
- ME 482 - Fluid and Thermal Systems Design (4)
- ME 486 - Mechanical Systems Design (4)
- ME 487 - Mechanical Computer-Aided Engineering (4)

Technical electives, choose 8 credits from

- MTH 275 - Linear Algebra (4)
- APM 263 - Discrete Mathematics (4)
- PHY 318 - Nuclear Physics Laboratory (2)
- PHY 331 - Optics (4)
- PHY 366 - Vibrations and Waves (4)
- PHY 372 - Nuclear Physics (4)
- PHY 381 - Electricity and Magnetism (4)
- PHY 418 - Modern Optics Laboratory (2)
- PHY 472 - Quantum Mechanics I (4)
- PHY 482 - Electricity and Magnetism II (4)
- ECE 378 - Computer Hardware Design (4)
- ME 331 - Introduction to Fluid and Thermal Energy Transport (4)
- ME 361 - Mechanics of Materials (4)
- Any 400-level ECE, ME or ISE courses (4-8)

Performance Requirements and Additional General Education Notes

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.0 in the engineering and computer science courses and also in the mathematics and science courses taken to meet program requirements. Students in this program are not required to complete the college distribution requirement of the College of Arts and Sciences. For further information about this program, see the section of this catalog for the School of Engineering and Computer Science, Engineering Physics program.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

ENGINEERING

EGR 120 - Engineering Graphics and CAD (1)
An introduction to the techniques for creating solid models of engineering designs. Topics include three-dimensional modeling of parts and assemblies, visualization, orthographic project views and layouts, auxiliary, sectional, and cutout views, exploded views, dimensioning and tolerancing, bill of materials, and computer-generated design documentation. Offered fall and winter.
Pre/Corequisite(s): MTH 141 or placement.

EGR 141 - Computer Problem Solving in Engineering and Computer Science (4)
General methods of problem solving and principles of algorithmic design using a high-level language such as Visual Basic.NET. Introduction to MATLAB. Applications will be drawn from problems in mechanical, electrical and computer engineering and computer science. Offered fall, winter.
Corequisite(s): MTH 154 or equivalent.

EGR 240 - Introduction to Electrical and Computer Engineering (4)
An introduction to the fundamentals of electrical and computer engineering; DC and AC circuits, digital logic circuits; combinational logic design; sequential circuits, introduction to electronics, operational amplifiers, DC electromechanical machines. With laboratory. Offered fall, winter. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): CSE 142 or EGR 141.
Prerequisite(s) or Corequisite(s): MTH 155 and (PHY 151 and PHY 110 or PHY 161).

EGR 250 - Introduction to Thermal Engineering (4)
Introduction to the fundamentals of classical thermodynamics and heat transfer; first and second laws of thermodynamics; thermodynamic property relationships; application to engineering systems and processes, steady and transient conduction in solids; introduction to convection heat transfer correlations. Offered fall and winter. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.
Prerequisite(s): (CHM 143 or CHM 144 or CHM 157), (PHY 161 or PHY 151), and EGR 141.
Pre/Corequisite(s): APM 255.

EGR 260 - Introduction to Industrial and Systems Engineering (4)
Overview of industrial and systems engineering: perspectives, tools and models. In depth coverage of probability and statistics in engineering: density and distribution functions, population and sampling distributions, confidence intervals, hypothesis testing and introduction to discrete-event simulation. Offered fall, winter.
Prerequisite(s): MTH 155.

EGR 280 - Design and Analysis of Electromechanical Systems (4)
Design, analysis, and testing of electromechanical systems; statics, linear and rotational dynamics; introduction to microprocessors; team design project dealing with technical, economic, safety, environmental, and social aspects of a real-world engineering problem; written, oral, and visual communication, engineering ethics. With Laboratory. Offered fall and winter.
Prerequisite(s): EGR 120, EGR 240, APM 255.
Pre/Corequisite(s): EGR 250, EGR 260.

EGR 295 - Special Topics (1 to 4)
Study of special topics in engineering and/or computer science. May be taken more than once. Topic must be approved prior to registration.

EGR 400 - Engineering Seminar (1)
Lectures and discussions conducted by faculty, graduate students and speakers from industry and other universities. Emphasis is on current research interests of the school. May be taken twice.

EGR 401 - Professional Engineering (1)
Seminars of professional interest to engineers, including such topics as professionalism, ethics, engineering law, engineering economics and technical communications.
Prerequisite(s): Major standing.

EGR 491 - Capstone Design (3 to 4)
Multi-disciplinary team experience in design, emphasizing realistic constraints such as safety, economic factors, reliability, aesthetics, ethics and societal impact. Projects will be supervised by the faculty. Offered fall, winter.
Prerequisite(s): senior standing.

EGR 496 - International Engineering and Computer Science (4)
An independent study or technical internship involving a minimum of eight weeks of residence abroad; student is required to present a final report. Departmental approval is required prior to registration.
Prerequisite(s): senior standing.

ENGINEERING BIOLOGY

EGB 390 - Introduction to Engineering Biology (3)
This course is a survey of topics and careers in engineering biology. It aims to help students choose their track for the remainder of the program and gain a general view of the field. Topics include bioinformatics, computational biology, electronic devices, biosensors, biomedical and biophysical engineering, and quantitative biology.
Prerequisite(s): major standing.

EGB 490 - Research Project/Capstone Design (3)
Students integrate multi-disciplinary knowledge and the various skills in laboratory work and communication to solve problems using engineering biology principles under real world constraints. Students will present project proposals to the faculty advisory panel, demonstrate feasibility, implement the projects, present the final projects, and compete for best project. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): major standing and senior status.

INFORMATION TECHNOLOGY

CIT 120 - Introduction to Computing and Programming using Excel (4)
An introduction to computers and programming. It introduces algorithms for applications that contain integrated development environments (IDE), such as Microsoft Excel's IDE for Visual Basic for Applications (VBA). Algorithmic topics include repetitive and decision structures, functions, subroutines, and ActiveX controls. Programming topics include application automation and presenting information programmatically. Laboratory. Satisfies the university general education requirement in the formal reasoning knowledge foundation area. (Cross-listed with CSE 120.)

CIT 122 - Computer Animation (4)
Computer animation is an increasingly critical component of human-computer-interaction, computer games, movie industry, and scientific and engineering visualization. This course covers the fundamental concepts underlying animation, discusses the characteristics and constraints of the different techniques and how they fit together, and teaches students the skills to create animations and computer games. This course is lab-intensive. Offered fall, winter. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

CIT 130 - Introduction to Computer Programming (4)
Introduction to digital computers and algorithmic programming. Topics include: data storage and manipulation control structures, functions and sub-programming. Introduction to object-oriented programming. Students cannot receive credit for both EGR 141 and this course. Satisfies the university general education requirement in the formal reasoning knowledge foundation area. Equivalent with CSE 130.
Prerequisite(s): MTH 062 or equivalent.

CIT 131 - Computer Programming (4)
Algorithmic programming using a high level, event-driven, language such as VB.NET. Topics include data storage and manipulation, graphical user interfaces, control structures, functions and sub procedures. Students cannot receive credit for either EGR 141 or CIT/CSE 130. Offered fall, winter. Intended for Information Technology majors and minors.
Prerequisite(s): MTH 062.

CIT 202 - Ethics and Social Impacts of Computing (2)
Ethical issues in computing and its social impacts are introduced. Topics include software piracy, hacking, privacy, professional conduct, and the impact of information technology on society.

CIT 230 - Object-Oriented Computing l (4)
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. (Cross-listed with CSE 230)
Prerequisite(s): EGR 141, CIT 130 or CIT 131 or CSE 130 or CSE 142 or equivalent.

CIT 247 - Introduction to Computer Networks (4)
An introduction to fundamental concepts for design and analyses of computer networks. Topics covered include the physical layer, network protocols, Local Area Networks, Internet, wireless and mobile networks, network security, and socket programming. (Cross-listed with CSE 247).
Prerequisite(s): high level programming course or CIT 230 or CSE 230.

CIT 248 - Computer Systems (4)
Introduction to computer systems. Topics cover computer system components, including hardware components, storage devices, memory, graphics accelerators, device and communications interfaces, and CISC and RISC processors, operating systems, and system administration activities. Issues in cost, performance, security, and compatibility are also considered.
Prerequisite(s): CIT 230 or CSE 230 or equivalent.

CIT 250 - Introduction to Operating Systems for System Administrators (4)
Introduces fundamental concepts of system administration for Unix and Windows operating systems. Concepts of operating system such as file system, memory management, processes and service management are discussed in view of System Administration. Script programming is introduced to automate system administration tasks.
Prerequisite(s): CIT 248.

CIT 252 - Interactive Web Systems (4)
This course introduces the fundamentals of interactive multimedia in context of web technologies. Topics covered include use of modern web development tools, Markup Languages, server-side processing, and client-side processing using languages such as JavaScript. Students will use these tools to create interactive and dynamic web sites. Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): CIT 230 or CSE 230.

CIT 280 - Sophomore Project (2)
A team-oriented project work consisting of a small project to build skills in needs assessment, group problem solving, and written and oral technical presentations.
Prerequisite(s): CIT 230 or CSE 230.

CIT 337 - Software Engineering and Practice (4)
Introduction to software engineering and practice. Topics include software process models, project management, requirements analysis, software quality assurance, and testing.
Prerequisite(s): major standing in IT/CS.

CIT 345 - Database Design and Implementation (4)
Introduction to the design and implementation of database systems. Include designing a practical database for an application using normal forms, understanding relational database schemas, planning and implementing a database using software such as Oracle and Microsoft SQL Server, advanced database topics in redundancy, replication, load balancing, compatibility, ODBC and JDBC, and database systems administration. (Cross-listed with CSE 345.)
Prerequisite(s): major standing in IT.

CIT 348 - System Administration (4)
This course teaches the skills necessary to analyze, deploy, manage and troubleshoot enterprise computing infrastructures. Topics include user authentication management, system configuration and management, periodic tasks automation, network file systems and data backup techniques, server deployments, and system performance analysis techniques. The course has a significant lab component.
Prerequisite(s): CIT 247 or CSE 247 and major standing in CS/IT.

CIT 349 - Advanced System Administration (4)
Advanced concepts in enterprise computing infrastructure analysis, deployment, management and troubleshooting. Topics include enterprise computing resource requirements analysis and design, single sign-on management, application and server deployment, virtualization, security configurations, and performance analysis.
Prerequisite(s): CIT 348 and major standing in CS/IT.

CIT 350 - Human Computer Interaction (4)
Surveys various components, techniques of Human Computer Interaction (HCI). Topics include the basic perceptual, cognitive and performance capabilities of people and external factors that affect these capabilities, tools, techniques for understanding, predicting, evaluating the interactions of people with technology. Systematic processes for designing, evaluating and revising interactive systems are studied.
Prerequisite(s): major standing in IT/CS.

CIT 352 - Systems Analysis (4)
Introduction to pervasive themes in information technology. Topics include history of information systems, information management, complexity management, methodologies for information centric requirements analysis, work flow analysis, and tools for system analysis.
Prerequisite(s): major standing in IT.

CIT 423 - Mobile and Smart Phone Application Development (4)
This course focuses on simple to advanced mobile application development for smartphone devices. Both classroom theory and hands-on labs enable students to gain experience in developing real-world mobile applications. Topics include mobile user interface development, mobile hardware resource accessibility API, networking and persistent storage.
Prerequisite(s): CSE 230 or CIT 230.

CIT 424 - Cloud Computing (4)
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.
Prerequisite(s): senior standing.

CIT 436 - Concurrent and Multi-Core Programming (4)
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.
Prerequisite(s): senior standing.

CIT 448 - Information Security Practice (4)
Survey of concepts and methods of security policies, models and mechanisms for secrecy, integrity, availability, and authentication. Topics covered include security policies; access control; introduction to cryptography; control and prevention of viruses and other rogue programs; common system vulnerabilities and countermeasures; and legal and social issues.
Prerequisite(s): CIT 247 or CSE 247 and major standing in CS/IT.

CIT 450 - CIT Project Management (4)
This course presents the theory and practice of IT project management. Topics include financial modeling, cost and effort estimation, project risk management, and project evaluation and selection as well as topics in IT project sponsorship, stewardship and leadership. IT entrepreneurship and marketing are emphasized throughout the course.
Prerequisite(s): CIT 352 and major standing in IT.

CIT 480 - Senior Capstone Project (4)
A team-oriented senior project to synthesize the knowledge and skills gained in the CS/IT curricula. Written and oral reports are required in addition to a working demo. (Cross-listed with CSE 480.) Satisfies the university general education requirements for the capstone experience. Satisfies the university general education requirements for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): CIT 337, CIT 345, and (CIT 350 or CIT 352), senior standing in IT.

CIT 495 - Special Topics (2 or 4)
Advanced study of special topics. May be taken more than once.
Prerequisite(s): major standing.

CIT 496 – Internship (4)
The student works on a specific project at a corporate site with the prior approval by the program director. Oral and written presentations about the project are required.
Prerequisite(s): major standing.

CIT 497 - Industrial Project (4)
The student works on a specific project at a corporate site with the prior approval by the program director. Oral and written presentations about the project are required.
Prerequisite(s): major standing.

CIT 498 - Undergraduate Research (4)
The student performs research under the supervision of a faculty member. Prior permission required. Oral and written presentations about the research are required.
Prerequisite(s): major standing.

COMPUTER SCIENCE AND ENGINEERING

CSE 110 - Computer Literacy (2)
An introduction to the use of desktop computers. Topics include word processing, spreadsheets, PowerPoint, and the use of the worldwide web.

CSE 120 - Introduction to Computing and Programming using Excel (4)
An introduction to computers and programming. It introduces algorithms for applications that contain integrated development environments (IDEs) such as Microsoft Excel's IDE for Visual Basic for Applications (VBA) Algorithmic topics include repetitive and decision structures, functions, subroutines, and ActiveX controls. Programming topics include application automation and presenting information programmatically. Accompanied by laboratory sessions. Offered fall, winter. (Cross-listed with CIT 120.) Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

CSE 130 - Introduction to Computer Programming (4)
Introduction to digital computers and algorithmic programming. Topics include: data storage and manipulation control structures, functions and sub-programming. Introduction to object oriented programming. Students cannot receive credit for both CSE 130 and EGR 141. Offered fall, winter. Identical with CIT 130. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): MTH 062 or equivalent.

CSE 142 - Introduction to C Programming and Unix (4)
Introduction to programming and problem solving using C and Unix. The topics include fundamentals of C programming and basic Unix commands including file organization, user commands, and utilities in Unix and creating, editing, executing, and debugging C programs. Introduction to shell programming.
Pre/Corequisite(s): MTH 154 or equivalent.

CSE 202 - Ethics and Social Impacts of Computing (2)
Ethical issues in computing and its social impacts are introduced. Topics include software piracy, hacking, privacy, professional conduct, and the impact of information technology on society.

CSE 229 - Introduction to Data Structures in C (4)
C programming including arrays, structures, and pointers. Basic data structures such as stacks, queues, and lists. Implementation and analysis of fundamental sorting and searching algorithms.
Prerequisite(s): EGR 141.

CSE 230 - Object-Oriented Computing I (4)
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. (Cross-listed with CIT 230.) Prerequisite(s): EGR 141 or CIT 130 or CIT 131 or CSE 130 or CSE 142 or equivalent.

CSE 231 - Object-Oriented Computing II (4)
A second course in programming, with emphasis on data abstraction and object-oriented design. The basic data structures in computer science, including stacks, queues, lists and trees, are covered in detail. Concepts of design, analysis and verification are discussed in the context of abstract data types. Examples of applications taken from numeric and symbolic domains are used.
Prerequisite(s): CSE 230 or CIT 230.

CSE 232 - C++ for Programmers (2)
A course in C++ programming for programmers with basic knowledge of data types and control structures in programming languages. Topics include pointers, memory management, classes, polymorphism, overloading, templates, input/output, parameter passing, multiple inheritance, standard template library, and philosophical differences in major object-oriented programming languages.
Prerequisite(s): CSE 230 or equivalent.

CSE 233 - Immersive Python (2)
This course introduces the fundamentals and applications of Python. The language fundamentals covered are statements, variables, comments, control structures, functions, modules, packages, and objects. The course also includes advanced concepts such as collections (Lists, Tuples and Dictionaries) with their practical use for Data Processing, Systems administration, and Web development applications.
Prerequisite(s): CIT 130 or CSE 130 or CIT 230 or CSE 230.

CSE 234 - Ruby for Web Developers (2)
This course introduces the dynamic programming language Ruby – focusing on language fundamentals, debugging and external language binding techniques, and extremely popular web development framework Ruby on the Rail (ROR). The basic ROR topics include discussion of convention over configuration as used by ROR and RESTFul web development with practical exercises.
Prerequisite(s): CIT 130 or CSE 130 or CIT 230 or CSE 230.

CSE 235 - Programming in Visual C# for .NET Technology (2)
This course covers C#.NET for programmers who already have the basic knowledge for object-oriented programming techniques. Topics include: Windows forms, Common Language Run Time (CLR), assemblies, ADO.NET, XML, Web Services, Mobile and Embedded Development.
Prerequisite(s): CIT 230 or CSE 230.

CSE 236 - Embedded C Language (2)
Introduces concepts of C language programming for embedded system applications. Provides rigorous treatment of theory and embedded program practice. Topics covered include: Syntax, fixed and floating point arithmetic, flow control, functions, arrays, pointers, characters, strings, input/output, bit manipulation, data structure, preprocessor (define, pragma, etc.), Embedded C standards, DSP extensions for C.
Prerequisite(s): CIT 230 or CSE 230.

CSE 247 - Introduction to Computer Networks (4)
An introduction to fundamental concepts for design and analysis of computer networks. Topics covered include the Internet, network protocols, Local Area Networks (LAN), wireless and mobile networks, network security, and socket programming.
Prerequisite(s): high level programming course or CIT 230 or CSE 230.

CSE 252 - Interactive Web Systems (4)
This course introduces the fundamentals of interactive multimedia in context of web technologies. Topics covered include use of modern web development tools, Markup Languages, server-side processing, and client-side processing using languages such as JavaScript. Students will use these tools to create interactive and dynamic web sites. (Cross-listed with CIT 252.) Satisfies the university general education requirement in the knowledge applications integration area. Prerequisite for knowledge applications: completion of the general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): CIT 230 or CSE 230 with a grade of 1.0 or better.

CSE 280 - Sophomore Project (2)
A team-oriented project work consisting of a small project to build skills in needs assessment, group problem solving, and written and oral technical presentations.
Prerequisite(s): CSE 230 or CIT 230.

CSE 335 - Programming Languages (4)
Fundamental concepts in programming languages. Several high-level languages are studied in depth and their approaches to the fundamental issues in language design are compared. Issues include: data types and structures, control structures, binding times, run-time storage organization, flexibility vs. efficiency, compiled vs. interpreted languages, strong vs. weak typing, block structure and scope of names. Offered fall.
Prerequisite(s): CSE 231 and MTH 275 and major standing.

CSE 337 - Software Engineering and Practice (4)
Introduction to software engineering and practice. Topics include software process models, project management, requirements analysis, software quality assurance, and testing. Cross-listed with CIT 337.
Prerequisite(s): major standing.

CSE 343 - Theory of Computation (4)
Formal models of computation, ranging from finite state automata to Turing machines. Computational models are used to discuss the languages recognized by these machines and address issues of computability. Identical with APM 381. Offered winter.
Prerequisite(s): Major standing CS.

CSE 345 - Database Design and Implementation (4)
Introduction to the design and implementation of database systems. Topics include designing a practical database for an application using normal forms, understanding relational database schemas, planning and implementing a database using software such as Oracle and Microsoft SQL Server, advanced database topics in redundancy, replication, loading balancing, compatibility, ODBC and JDBC, and database systems administration. (Cross-listed with CIT 345.)
Prerequisite(s): major standing.

CSE 361 - Design and Analysis of Algorithms (4)
Computer algorithms, their design and analysis. Strategies constructing algorithmic solutions, including divide-and-conquer, dynamic programming and greedy algorithms. Development of algorithms for parallel and distributed architectures. Computational complexity as it pertains to time and space is used to evaluate the algorithms. A general overview of complexity classes is given. Offered fall and winter. Identical with APM 367.
Prerequisite(s): CSE 231, APM 263, and major standing in CS.

CSE 364 - Computer Organization (4)
Assembly language, addressing modes, RISC and CISC architectures, assemblers, loaders, linkers arithmetic and logic unit, hardware functional units, input/output organization, memory organization, cache memory, virtual memory, control unit, pipelining, parallel computer organization.
Prerequisite(s): EGR 240 and major standing in CS.

CSE 378 - Computer Hardware Design (4)
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.
Prerequisite(s): EGR 240 and major standing in CS.

CSE 423 - Mobile and Smart Phone Application Development (4)
This course focuses on simple to advanced mobile application development for smartphone devices. Both classroom theory and hands-on labs enable students to gain experience in developing real-world mobile applications. Topics include mobile user interface development, mobile hardware resource accessibility API, networking and persistent storage.
Prerequisite(s): CSE 230 or CIT 230.

CSE 424 - Cloud Computing (4)
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.
Prerequisite(s): senior standing.

CSE 436 - Concurrent and Multi-Core Programming (4)
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.
Prerequisite(s): senior standing.

CSE 450 - Fundamentals of Operating Systems (4)
Introduction to the concepts and design of operating systems. Typical topics include: sequential processes, concurrent processes, processor management, memory management, scheduling, file management, and resource protection. Offered winter.
Prerequisite(s): CSE 361 and CSE 364 and major standing in CS or CE.

CSE 461 – Bioinformatics (4)
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.
Prerequisite(s): major standing.

CSE 470 - Microprocessor-based Systems Design (4)
Application of microprocessors and microcomputers to the solution of typical problems; interfacing microprocessors with external system such as sensors, displays and keyboards; programming considerations, microcomputer system and memory system design. A laboratory, design course; several short design projects and one large design project. Written report and oral presentation required. Credit cannot be earned for both CSE 470 and ECE 470. Offered fall, winter.
Prerequisite(s): CSE 364 and major standing.

CSE 480 - Senior Capstone Project (4)
A team-oriented senior design course for computer science and computer engineering majors. Teams will conceive, analyze, design, implement and test a computer-based hardware and/or software system, component or process. Results will be demonstrated and documented in oral presentations and written reports. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): CSE 337, 345 and 364, major standing and senior standing.

CSE 490 - Senior Project (2 to 4)
Independent work on advanced laboratory projects. Topics must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

CSE 494 - Independent Study (2 to 4)
Advanced individual study in a special area. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

CSE 495 - Special Topics (2 to 4)
Advanced study of special topics. May be taken more than once.
Prerequisite(s): major standing.

CSE 496 – Internship (4)
The student works on a specific project at a corporate site with the prior approval by the program director. Oral and written presentations about the project are required.
Prerequisite(s): major standing.

CSE 498 - Undergraduate Research (4)
The student performs research under the supervision of a faculty member. Prior permission required. Oral and written presentations about the research are required.
Prerequisite(s): major standing.

ELECTRICAL AND COMPUTER ENGINEERING

ECE 276 - Electric Circuits (4)
Modeling and analysis of circuits with dependent sources; non-ideal operational amplifiers. Transient and forced responses in RC, RL and RLC circuits. Series and parallel resonant circuits. AC power, three-phase circuits, magnetically coupled circuits. Wye-delta transforms. Introduction to frequency response. Use of PSPICE. With laboratory. Offered fall and winter.
Prerequisite(s): EGR 240.
Pre/Corequisite(s): APM 255.

ECE 278 - Digital Logic Design (4)
Boolean algebra; number systems and arithmetic, combinational logic circuits; synchronous sequential circuits; asynchronous sequential circuits; introduction to a hardware description language (HDL). With laboratory.
Prerequisite(s): EGR 240.

ECE 327 - Electronic Circuits and Devices I (4)
Characteristics and models of nonlinear circuit elements, such as diodes, BJTs and MOSFETs. Analysis and design of circuits employing these devices, including power supplies, voltage regulators, and amplifiers; Biasing and circuit stability issues. Use of Operational amplifiers, discrete circuit elements; and PSPICE software for circuit design is emphasized in the lab. With Laboratory. Offered fall, winter.
Prerequisite(s): ECE 276 and major standing.

ECE 328 - Electronic Circuits & Devices II (4)
Analysis and design of functional analog circuits with particular specifications. Frequency responses of analog circuits. Building blocks for integrated circuits including current mirror, differential pairs and output stage. Active filters. Interface circuits for micro-electro-mechanical systems (MEMS) and sensors. A laboratory session is integrated to enhance students' experience in circuit design and analysis.
Prerequisite(s): ECE 327.

ECE 335 - Signals and Systems (4)
Basic signals, average value, average power, and energy. Laplace transform and inverse Laplace transform, and transfer function concept and approach in the analysis of electrical and mechanical lumped-parameter linear systems. Systems modeling and analysis in Laplace and differential equation domains. Natural and forced responses of linear time-invariant systems, and concept of convolution. Fourier analysis of signals and systems: Fourier series and Fourier transform, power spectral density, energy spectral density, band width, and filters.
Prerequisite(s): ECE 276 and major standing.

ECE 345 - Electromagnetics I (4)
This is an introductory course in electromagnetics. A thorough review of waves, phasors, and vector calculus is provided to lay the mathematical foundation to cover the key topics in this course. The key topics include transmission lines, electrostatics, magnetostatics, and touches upon time-varying fields.
Prerequisite(s): ECE 276, MTH 254, and major standing.

ECE 351 - Electrical Machines (4)
Magnetic circuits, transformers, magnetic energy, force/torque and heat dissipation. DC and AC machines and their equivalent circuits, torque analysis and power efficiency. Three phase transformers, synchronous and induction machines. Per unit system and introduction to power distribution. With Laboratories in transformers, DC and AC machines.
Prerequisite(s): ECE 276 and major standing.

ECE 378 - Computer Hardware Design (4)
Development of components and techniques needed to design digital circuits and systems for controllers, computers, communication and related applications. Design and analysis of combinational and sequential logic circuits using a hardware description language such as VHDL, timing simulations, test benches, embedded cores. Design of special-purpose processors and their implementation in an FPGA. With Laboratory. Offered fall, winter, summer.
Prerequisite(s): EGR 240 or ECE 278 and major standing.

ECE 423 - Robotic Systems and Control (4)
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. Offered fall or winter.
Prerequisite(s): ECE 335 and major standing.

ECE 428 - Industrial Electronics (4)
Applications of advanced electronics to manufacturing processes. Analysis and design considerations for industrial electronic systems. Operation of programmable controllers. Modeling and characteristics of integrated process elements. Transducers, signal conditioning and transmission; analog and digital controllers; thyristor commutation techniques; power supplies and interfaces, DC and AC drives and motor control circuits. With laboratory and design projects.
Prerequisite(s): ECE 327 and major standing.

ECE 429 - Introduction to Power Electronics (4)
Power semiconductor devices and circuits. AC/DC Converters. Thyristors and communication techniques. Phase-controlled rectifiers, choppers and inverters. AC voltage controllers and cycloconverters. Introduction to novel power electronic devices, such as IGBT and power MOSFET. Some industrial applications. With laboratory.
Prerequisite(s): ECE 327 and ECE 335.

ECE 431 - Automatic Control Systems (4)
Mathematical modeling of dynamic systems, transfer functions and block diagrams. State-space representations and local linearization of nonlinear systems. Transient and steady-state analysis, stability criteria and state-feedback control. The root-locus method and frequency-response method for control systems analysis and design. Design of PID controllers and compensation networks. Controllability and observability for linear time invariant system2. Computer simulations using Matlab. With laboratory.
Prerequisite(s): ECE 335.

ECE 433 - Digital Control Systems (4)
Sampling theorem, digitization and discrete-time models of a continuous control system. Introduction to z-transform, transfer function and stability criteria in z-plane. Digital control system analysis and design using root-locus and frequency-response methods. State-space models and local linearization of nonlinear discrete-time systems. Controllability, observability, and state-feedback control of a linear discrete system. Implementation aspects of computer-controlled systems. Use of Matlab and Simulink for design and simulation of digital control systems.
Prerequisite(s): ECE 431.

ECE 437 - Communication Systems (4)
Review of Fourier series, Fourier transform, and signal characteristics, such as bandwidth, power, energy, power spectral density, and orthogonality. Introduction to basic modules in communication systems and their functions. Analog and digital modulation and demodulation techniques, including amplitude, frequency, phase modulation and demodulation, and phase locked loop. Sampling and quantization. Review of probability theory. Introduction to performance analysis of modulated communication systems under noise. Introduction to technological advances and applications in modern communications. With laboratory.
Prerequisite(s): ECE 327 and ECE 335.

ECE 438 - Fundamentals of Digital Signal Processing (4)
Basic analysis and design of linear time-invariant discrete-time systems. Properties of digital signals and systems, Z-transform and discrete Fourier transform, spectrum analysis and digital filter design.
Prerequisite(s): ECE 335.

ECE 439 - Machine Vision (4)
Introduction to machine vision; image formation (impacts of lighting and optics); image processing; feature detection and matching; feature-based alignment. Industrial applications for machine vision; gauging; inspection; guidance; identification. Laboratory based projects.
Prerequisite(s): ECE 335.

ECE 441 - Electromechanical Energy Conversion II (4)
Advanced study of electromagnetic systems. The principle of duality between magnetic and electric circuits. Necessary conditions for electromechanical energy conversion. Modeling, equivalent circuits and steady-state/transient analyses of DC and AC electric machines. Speed control of DC and AC motors with industrial applications. With laboratories.
Prerequisite(s): ECE 351 and major standing.

ECE 443 - Electromagnetics II (4)
This course provides an introduction to radio wave propagation, antennas and communications systems. Students will learn plane wave propagation through uniform and isotropic media, wave reflection and transmission at normal incidence, complex propagation constant, wave polarization, wave impedance, Poynting vector, basic radiation and antenna principles and satellite communications systems and radar sensors. Course includes laboratories.
Prerequisite(s): ECE 345.

ECE 447 – Antennas (4)
This course provides an 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 links. Dyadic Green's function, radiation from current elements such as dipoles and monopoles, far-zone fields and arrays of point sources. Course incorporates lab demonstrations.
Prerequisite(s): ECE 345.

ECE 448 - Electromagnetic Compatibility (4)
Review of fundamental behavior of circuit and systems. Non-ideal models of circuit components. Signals and their spectra. EMC regulations. Conducted and radiated emissions and immunity. EMC tests and instrumentation. Analysis of shielding and grounding solutions. Introduction to signal integrity and EMC issues in transmission lines.
Prerequisite(s): ECE 345.

ECE 450 - Satellite-based Positioning System (4)
Introduction to satellite-based positioning systems with emphasis on Global Positioning System (GPS), GPS satellite constellation, coordinate systems, timing standards, GPS signal structure. Determination of position from range measurements. Ranging error sources and mitigation techniques. Impact of ranging errors and satellite geometry on 3-dimensional position error.
Prerequisite(s): ECE 437.

ECE 458 - Electrical Energy Systems (4)
Generation, transmission and distribution of electrical energy. Analysis and design of three-phase circuits, representation of power systems and per unit normalization, symmetrical components and stability, unsymmetrical faults. Computer-aided problem solving included.
Prerequisite(s): ECE 335 and ECE 351.

ECE 470 - Microprocessors-Based Systems Design (4)
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 and memory system design. A laboratory, design course; several short design projects and one large design project. Written report and oral presentation required. Credit cannot be earned for both CSE 470 and ECE 470. Offered fall, winter.
Prerequisite(s): ECE 278 or ECE 378, and major standing.

ECE 472 - Microcomputer-based Control Systems (4)
Computer-aided engineering, modeling, analysis, design, evaluation and visualization of dynamical and control systems including algorithms for digital logic, filters, controllers and estimators. Microcomputer-based hardware/software implementation of algorithms including data acquisition, signal conditioning and power processing circuits, computer interface and data communications, input and output devices, graphics displays. Model-based rapid prototyping of embedded microcontrollers and PIC processors. Experiments and projects emphasize real-time applications, programming and hardware integration. With laboratory.
Prerequisite(s): ECE 328 and ECE 431.

ECE 473 - Automotive Electronics (4)
Review of basic automotive electronic devices and circuits. Characteristics, models and interfacing of sensors and actuators. Basic electronic and electromechanical controllers; engines, transmission, brake, suspension and traction. Battery system supply. Ancillary system components: safety, auto, theft, diagnostics, collision. With laboratory. (Not for credit for electrical engineering majors.)
Prerequisite(s): major standing.

ECE 475 - Automotive Mechatronics I (4)
Overview of mechatronics, modeling, simulation, characterization and model validation of electromechanical 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 produce design; mechatronics case studies. With laboratory.
Prerequisite(s): ECE 276, 335 and major standing.

ECE 477 - Electric and Hybrid Drive Systems (4)
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.
Prerequisite(s): ECE 351, ECE 431 and ECE 429.

ECE 484 - Electronic Materials and Devices (4)
Semiconductor materials and device physics; charge carriers and conduction mechanisms, Energy Band Diagrams (EBDs). Theory of metal-semiconductor contacts and junction diodes. Unipolar and bipolar devices: MOSFETs threshold voltage, characteristics, circuit models and regions of operations; bipolar junction transistors, and introduction to CMOS with integrated circuit technology, layout and simulation.
Pre/Corequisite(s): ECE 327.

ECE 485 - VLSIC Design of Digital Chips (4)
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. With laboratory.
Prerequisite(s): ECE 327 and (ECE 278 or ECE 378).

ECE 487 - Integrated Electronics (4)
Modern microelectronics processes and fabrication of integrated circuits. Crystal growth, wafer preparation, photo lithography, dielectric and polysilicon film deposition, epitaxial growth, oxidation, diffusion, ion implementation, etching, metallization and integrated circuits layout principles. Introduction to MOS-based and bipolar transistor-based microcircuits design and fabrication. Fabrication processing simulation using SUPREM. With laboratory and projects.
Prerequisite(s): ECE 484 or ECE 384.

ECE 490 - Senior Project (2 to 4)
Independent work on advanced laboratory projects. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

ECE 491 - Senior Design (4)
Capstone design projects selected from a wide variety of areas related to electrical and computer engineering. Develops system approach to design: preparation of specifications, scheduling, modeling, simulations, and technological, financial and environmental aspects. Multi-disciplinary teamwork is emphasized. Prototyping, testing and completion of the project are required. Presentation of results required. Satisfies the university general education requirement for a capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): for Computer Engineering majors: ECE 327, ECE 378 and ECE 470.
Prerequisite(s) for Electrical Engineering majors: ECE 423 or ECE 429 or ECE 431 or ECE 437 or ECE 443 or ECE 470 or ECE 485.

ECE 494 - Independent Study (2 to 4)
Advanced individual study in a special area. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

ECE 495 - Special Topics (2 to 4)
Advanced study of special topics in engineering. May be taken more than once.
Prerequisite(s): major standing.

INDUSTRIAL AND SYSTEMS ENGINEERING

ISE 150 - How Things Work (4)
For non-science majors, a practical introduction to engineering and science in everyday life. This course considers objects from our daily environment and focuses on their principles of operation, histories and relationships to one another. ISE 150 emphasizes concepts from mechanical and thermal objects. Satisfies the university general education requirement in the knowledge application integration area.
Prerequisite(s): completion of the general education requirement in the writing foundation area.

ISE 170 - Learning How to Learn (4)
Learning How to Learn gives students practical insight, based on research findings from neuroscience and cognitive psychology, on how to learn more deeply and with less frustration. Satisfies the university general education requirement in the social science knowledge exploration area.

ISE 310 - Engineering A Great Life (4)
The principles of Systems Engineering will be taught and applied to the various aspects of a person's life. The principles revolve around a purpose-driven life cycle for achieving measurable goals including needs assessment, design, implementation, evaluation, fielding, maintenance, and recycling. The areas of life examined include maintenance of the self, relationships with others, business success and worldwide issues. Students will be expected to demonstrate measurable change in their own life using the principles of the course. Satisfies the university general education requirement in the knowledge application integration area and for the capstone experience. Prerequisites for knowledge application: completion of the general education requirement in the formal reasoning knowledge foundation; social science and natural science and technology knowledge exploration areas.

ISE 318 - Engineering Statistics and Economic Analysis (4)
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. Offered fall.
Prerequisite(s): EGR 260 and major standing.

ISE 330 - Engineering Operations Research (3)
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. Offered winter.
Prerequisite(s): major standing.

ISE 341 - Ergonomics and Work Design (4)
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. Offered fall. With laboratory.
Prerequisite(s): major standing.

ISE 410 - Supply Chain Modeling and Analysis (4)
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.
Prerequisite(s): major standing.

ISE 422 - Robotic Systems (4)
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. Credit cannot be received for both ISE 422 and ME 478. Offered fall.
Prerequisite(s): major standing.

ISE 430 - Engineering Operations Research - Stochastic Models (4)
Review of linear programming, duality theory, integer programming, and nonlinear programming. Topics include stochastic dynamic programming, ergodic and absorbing Markov chains with applications, and queuing models with applications based on birth-death process. Introduction to stochastic inventory models and Markov decision processes with applications. Offered fall.
Prerequisite(s): ISE 330 and major standing

ISE 441 - Human Factors Engineering (4)
Human body's physical capabilities impacting work design and productivity; its functional capabilities: joint stresses; fatigue analysis. Biomechanical principles applied to design and analysis of work: posture analysis, lifting aids; risk assessment. Work related infractions: repetitive injury; non-repetitive injury. Human body's sensory and cognitive limitations in the work environment. Offered winter.
Prerequisite(s): ISE 341 and major standing.

ISE 450 - Fundamentals of Energy Management (4)
Basic concepts involving energy usage in residential, commercial and industrial enclosures, heat transfer and infiltration, electric and natural gas utilization, performing energy assessments, optimizing usage through increased efficiency and alternative energy technology, cost-benefit analysis. The course focuses on using energy assessments to manage energy efficiently.
Prerequisite(s): Major standing.

ISE 461 - PLM Apps - Product Data Management (2)
Methodologies and application of Product Lifecycle Management (PLM) software tools used for Product Data Management (PDM) and CAD to author and manage product data. Course will emphasize hands-on use of state-of-the-art PLM tools and their application.
Prerequisite(s): major standing.

ISE 462 - PLM Apps – Robotics (2)
Methodologies and application of Product Lifecycle Management (PLM) software tools for modeling and analyzing robotic systems. Course will emphasize hands-on use of state-of-the-art PLM tools and their application.
Prerequisite(s): ISE 484 or 422, major standing

ISE 463 - PLM Apps – Ergonomics (2)
Methodologies and application of Product Lifecycle Management (PLM) software tools for ergonomics modeling and analysis. Course will emphasize hands-on use of state-of-the-art PLM tools and their application.
Prerequisites: ISE 341, major standing.

ISE 464 - Design for Manufacturing and Assembly Analysis (4)
Role of a geometric modeler in design and manufacturing. Representation of wire-frame, surface, solid models and feature-based models. Different standards for representation of geometric data. Analysis of a design for DF(x) principles that include manufacturing, assembly, disassembly and environment. With laboratory.
Prerequisite(s): major standing.

ISE 466 - PLM Apps - Change Management (2)
Methodologies and application of Product Lifecycle Management (PLM) software tools used to capture a complex product's definition, functional and physical requirements towards designing, developing and managing it through its lifecycle. Course will emphasize hands-on use of state-of-the-art PLM tools and their application.
Prerequisite(s): major standing

ISE 469 - Computer Simulation of Discrete Event Systems (4)
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. With laboratory. Offered winter.
Prerequisite(s): ISE 318 and major standing.

ISE 480 - E-Commerce and ERP (4)
This course focuses on the evolving technologies on the world wide web that support new models of business including 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 into inter-company supply chain systems. Offered fall.
Prerequisite(s): major standing.

ISE 482 - Engineering Processes & Decisions Using ERP (4)
Examines three major steps in the deployment of an Enterprise Resource Planning (ERP) system: criteria for the selection of a system; configuration of the selected system to match a company's business processes; and execution of business processes as well as making decisions supported by the ERP system. The course is case-based and will give students access to an instance of an ERP system. Prerequisites: major standing

ISE 483 - Production Systems and Workflow Analysis (4)
Design issues to control the flow of material in manufacturing systems from forecast to finished product. Topics include aggregate planning and disaggregation, inventory control, MRP, JIT systems, scheduling, project planning and resource balancing, application of lean principles, theory of constraints and supply chain, facilities planning and layout. Offered fall.
Prerequisite(s): ISE 330 and major standing.

ISE 484 - Flexible and Lean Manufacturing Systems (4)
Technologies and concepts that make manufacturing systems flexible: CAM, Group Technology (GT), Computer Numerically Controlled (CNC) machining centers, robotics, automated warehousing (AS/RS), vision systems, material transport, Programmable Logic Controllers (PLC). Introduction to lean manufacturing. With laboratory. Credit cannot be received for both ISE 484 and ME 473. Offered winter.
Prerequisite(s): major standing.

ISE 485 - Statistical Quality Analysis (4)
Fundamentals of statistical quality control, control charts for variable and attribute data, custom charts, DNOM charts, estimation of process capability, statistical tolerancing and sampling plans. Fundamentals of design of experiments and application to product/process design. Taguchi's approach to robust design and related topics. Formerly SYS 485. Offered winter.
Prerequisite(s): ISE 318 and major standing.

ISE 487 - Foundations of Systems Engineering I (4)
Techniques for generation, analysis and verification of traceable product 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.
Prerequisite(s): major standing.

ISE 488 - Foundations of Systems Engineering II (4)
Mathematical underpinnings and theory of "Systemic Requirements" including reli-ability, use-ability, diagnose-ability, repair-ability, service-ability, maintain-ability, and recycle-ability.
Prerequisite(s): ISE 487 and major standing.
ISE 490 - Senior Project (2 to 4)
Independent work on advanced laboratory projects. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

ISE 491 - Senior Design (4)
Capstone design project selected from manufacturing systems, automotive or industrial systems, instrumentation and measurement, and control systems. Develops system approach to design; preparation of specifications, scheduling, modeling, simulation, and technological, financial environmental aspects. Teamwork is emphasized. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ISE 318, 330, 341 and major standing.
Corequisite(s): ISE 483 or 487.

ISE 494 - Independent Study (2 to 4)
Advanced individual study in a special area. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing.

ISE 495 - Special Topics (2 to 4)
Advanced study of special topics in engineering. May be taken more than once.
Prerequisite(s): Major standing.

MECHANICAL ENGINEERING

ME 308 - Computer-Aided Design (3)
Use of engineering software in design and analysis such as: solid modeling of machine parts, projection views layout, parametric and knowledge-based design, assembly design, sheet and metal design, bill of materials, structure design, introduction of finite element method, engineering optimization, space analysis and clash detection, mechanism and kinematics of assemblies. Offered fall and winter.
Pre/Corequisite(s): ME 361 and major standing.

ME 322 - Engineering Mechanics (4)
Statics and dynamics of particles and rigid bodies: analysis of structures, centroids and moments of inertia, kinematics, Newton's Second Law, work and energy, linear and angular impulse and momentum. With laboratory. Offered fall and winter.
Prerequisite(s): EGR 280 with a grade of 2.0 or higher and major standing.

ME 331 - Introduction to Fluid and Thermal Energy Transport (4)
The fundamentals of fluid mechanics and heat transfer, conservation and momentum principles, viscous and inviscid flow, laminar and turbulent flow, introduction to viscous and thermal boundary layer theory, conduction heat transfer and dimensionless correlations of convection heat transfer, applications to engineering problems. With laboratory; includes experiment design. Offered fall and winter.
Prerequisite(s): EGR 250 with a grade of 2.0 or higher, MTH 254 and major standing.
Pre/Corequisite(s): EGR 280.

ME 361 - Mechanics of Materials (4)
Introduction to the mechanics of deformable bodies: distribution of stress and strain in beams, shafts, columns, pressure vessels and other structural elements, factor of safety, yield criteria of materials with applications to design. With laboratory. Offered fall and winter.
Prerequisite(s): EGR 280 with a grade of 2.0 or higher and major standing.
Pre/Corequisite(s): ME 322.

ME 372 - Properties of Materials (4)
The atomic, molecular and crystalline structure of solids, including a description of x-ray analysis, metallography and other methods of determining structure; correlation of structure with the electric, magnetic and mechanical properties of solids. With laboratory. Offered fall and winter.
Prerequisite(s): (CHM 143, CHM 144 or CHM 157) and (PHY 162 or PHY 152) and major standing.

ME 421 - Vibrations and Controls (4)
Linear free and forced response of one- and multiple-degree freedom systems. Equations of motion of discrete systems. Vibration isolation, rotating imbalance and vibration absorbers. Transfer function and state-space approaches to modeling dynamic systems. Time and frequency domain and analysis and design of control systems. Use of MATLAB. Offered fall and winter.
Prerequisite(s): ME 322, MTH 254, APM 255 and major standing.

ME 423 - Acoustics and Noise Control (4)
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. Generally offered winter.
Prerequisite(s): ME 322, MTH 254, APM 255 and major standing.

ME 438 - Fluid Transport (4)
Continued study of the fundamentals of fluid mechanics and their applications, angular momentum principle; generalized study of turbo-machines, potential flow of inviscid fluids, laminar and turbulent boundary layer theory, dimensional analysis and similitude, compressible flow. With laboratory. Generally offered fall.
Prerequisite(s): ME 331 and major standing.

ME 443 - Polymeric Materials (4)
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. Technology related to plastics processing, testing, designing and recycling is introduced. Generally offered winter.
Prerequisite(s): ME 372 and major standing.

ME 445 - Plastics Product Design (4)
Design of plastic/composite products based on strength, stiffness, creeping, impacting, chemical and environmental deterioration. Effects of processing on part quality and performance. Design of plastic parts for manufacturability. Prototyping plastic parts. Design of plastic parts for joining and assembly. Use of CAD/CAM/CAE software for structural analysis and design optimization.
Prerequisite(s): ME 443 and major standing.

ME 448 - Thermal Energy Transport (4)
Continued study of properties and descriptions of conduction, convection and thermal radiation heat transfer; thermal boundary layer theory; forced and natural convection, heat transfer correlations. Thermodynamics of thermal radiation, radiation intensity, surface properties and energy exchange. Laboratory emphasizes experimental design and development of empirical relationships. Generally offered winter.
Prerequisite(s): ME 331 and major standing.

ME 454 - Alternative Energy Systems (4)
The analysis and design of alternative energy conversion systems. Primary topics include biomass energy conversion, including biofuels, solar and wind power will be primary topics. Other topics include fuel cells, geothermal energy and hydroelectric power. With project. Generally offered winter.
Prerequisite(s): ME 331 and major standing.

ME 456 - Energy Systems Analysis and Design (4)
The analysis and design of thermodynamic systems. Applications include thermodynamic cycles for power; thermodynamics of non-reacting mixtures including psychrometry; concepts of available energy and application to process/system optimization; the thermodynamics of reacting mixtures, including chemical equilibrium concepts, applied to combustion systems. With project. Offered fall and winter.
Prerequisite(s): EGR 250 with a grade of 2.0 or higher and major standing.

ME 457 - Internal Combustion Engines I (4)
Introduction to thermodynamics, fluid mechanics and performance of internal combustion engines including: introduction to engine types and their operation, engine design and operating parameters, ideal thermodynamic cycles, thermodynamics of actual working fluids and actual cycles, gas exchange processes, heat losses, performance, exhaust gas analysis and air pollution. Generally offered fall.
Prerequisite(s): ME 331 and major standing.

ME 461 - Analysis and Design of Mechanical Structures (4)
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 beam and thick-walled tubes, shear centers, non-symmetric binding, curved and composite beams and thick-walled cylinders. Generally offered Fall.
Prerequisite(s): ME 361 and major standing.

ME 467 - Optical Measurement and Quality Inspection (4)
State-of-the art optical methods including TV-holography/electronic speckle pattern interferometry, shearography, digital image correlation, three-dimensional computer vision, and laser triangulation; with applications to measurement of displacement, strain/stress, vibrational mode, material properties, three-dimensional shape, quality inspection and nondestructive testing. With laboratory. Generally offered fall and winter.
Prerequisite(s): ME 361 and major standing.

ME 472 - Materials Properties and Processes (4)
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. Generally offered winter.
Prerequisite(s): ME 361, ME 372 and major standing.

ME 473 - Flexible and Lean Manufacturing Systems (4)
Technologies and concepts that make manufacturing systems flexible: CAM, Group Technology (GT), Computer Numerically Controlled (CNC) machining centers, robotics, automated warehousing (AS/RS), vision systems, material transport, Programmable Logic Controllers (PLC). Introduction to lean manufacturing. With laboratory. Credit cannot be received for both ISE 484 and ME 473. Offered winter.
Prerequisite(s): major standing.

ME 474 - Manufacturing Processes (4)
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. Lab to be arranged. Generally offered fall and winter.
Prerequisite(s): ME 372 and major standing.

ME 475 - Lubrication, Friction, and Wear (4)
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. Generally offered fall.
Prerequisite(s): ME 372.
Pre/Corequisite(s): ME 331 and major standing.

ME 476 - Product and Process Development (4)
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.
Prerequisite(s): ME 361 and major standing.

ME 478 - Robotic Systems (4)
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 controller using a reconfigurable industrial manipulator. Demonstrations and application using industrial robots. Generally offered fall. Credit cannot be received for both ISE 422 and ME 478.
Prerequisite(s): ME 322 and major standing.

ME 479 - Fundamentals of Nuclear Engineering (3)
Fundamental concepts of atomic and nuclear physics; interaction of radiation with matter; nuclear reactors and nuclear power; neutron diffusion and moderation; heat removal from nuclear reactors; radiation protection and shielding; reactor licensing, safety and the environment; applications in power generation and medicine. Generally offered fall.
Prerequisite(s): ME 331, 372 and major standing.

ME 480 - Nuclear Reactors and Power Plants (3)
The study of various nuclear power plant types and systems; Rankine Cycle thermodynamics; BWR, ESBWR and PWR power plants; engineered safety systems; nuclear regulations, codes and standards; reactor safety fundamentals; economic and environmental issues. Generally offered winter.
Prerequisite(s): ME 456, ME 479, and major standing.

ME 482 - Fluid and Thermal Systems Design (4)
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.
Prerequisite(s): ME 331 and major standing.

ME 484 - Vehicle Dynamics (4)
Vehicle dynamics analyses including: governing equation of motion, road loads, gradeability, aerodynamic forces and moments, longitudinal acceleration and braking performance prediction, lateral handling characteristics, vertical comfortability criteria, vehicle ride evaluation, and operating fuel economy analysis. Generally offered winter.
Prerequisite(s): ME 322 and major standing.

ME 486 - Mechanical Systems Design (4)
Study of systems involving mechanical elements. Includes safety, stress, strength, deflection economic and social considerations, optimization criteria and strategies. Analysis and design of fasteners, springs, welds, bearings, power transmitting elements and complex structures subjected to static and/or dynamic loads. With project. Offered winter.
Prerequisite(s): ME 308, ME 361 and major standing.

ME 487 - Mechanical Computer-Aided Engineering (4)
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. Generally offered fall.
Prerequisite(s): ME 308, ME 361 and major standing.

ME 488 - Mechanical Computer-Aided Manufacturing (4)
Use of CAM software in various aspects of manufacturing processes. GD&T and tolerance analysis; surface design, managing cloud points and reverse engineering; simulation of kinematics of machine tools; 3-axis surface machining; mold tooling design; CMM and measurement data analysis; assembly simulation and structural analysis, rapid-prototyping. With project. Generally offered winter.
Prerequisite(s): ME 308, ME 361 and major standing.

ME 489 - Fasteners and Bolted Joints (4)
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. Generally offered fall.
Prerequisite(s): ME 486 and major standing.

ME 490 - Senior Project (3 to 4)
Work on advanced design and research projects. Topic must be approved prior to registration. If taken as an alternative to ME 492, student must work as part of a team of at least two people. May be taken more than once.
Prerequisite(s): ME 308, ME 331, ME 361, ME 372, and major standing. Approval of project proposal by Mechanical Engineering Department.

ME 492 - Senior Mechanical Engineering Design Project (4)
Multi-disciplinary team experience in engineering design, emphasizing realistic constraints such as safety, economic factors, reliability, aesthetics, ethics and societal impact. Projects will be supervised by engineering faculty. Generally offered fall, winter. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major.
Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): ME 308, ME 331, ME 361, ME 372 and major standing.

ME 494 - Independent Study (1 to 4)
Advanced individual study in a special area. Topic must be approved prior to registration. May be taken more than once.
Prerequisite(s): major standing and senior standing.

ME 495 - Special Topics (2 to 4)
Advanced study of special topics in engineering. May be taken more than once.
Prerequisite(s): major standing and senior standing.

Integrative Studies, B.I.S.

160 North Foundation Hall (248) 370-3229
Department Website: oakland.edu/bis/

Director: *David Lau*

Program Coordinator: *Jennifer Root*

Manager for Student Success (BIS Systems Specialist): *Krista Malley*

Macomb University Center Academic Counselor: *Lindsay Zeig*

Faculty Council for Integrative Studies:

Professors: *Kevin Murphy, Economics; Subbaiah Perla, Mathematics and Statistics*

Associate professors: *Jacob Cayanus, Communication and Journalism; Douglas Creighton, Physical Therapy; Beth Kraemer, Kresge Library; Michael Long, Human Resource Development, Fritz McDonald, Philosophy; Jessica Payette, Music, Theatre, and Dance; Brian Taber, Counseling; Xia Wang, Mechanical Engineering*

Special instructor: *Carolyn Tieppo, Nursing*

Lecturer: *Andreea Bordeianu*

Special Lectures: *Andreea Bordeianu, Charles Rinehart, Jennifer Root, Lindsay Zeig*

Alumni: *Kath Borg*

Students*: Rhiannon Bailiey, Mirabeth Braude*

The Bachelor of Integrative Studies degree (B.I.S.) is a university-wide baccalaureate program that offers maximum flexibility and opportunity for student decision making about courses of study at Oakland University. The degree is primarily intended for students wishing to create an innovative program of study to meet their individual goals by integrating courses of study from across the university.

Students entering the Integrative Studies program design a course of study utilizing courses from many departments to create a meaningful academic plan of study. Students may select courses from any field of study offered by an academic department, subject to prerequisites and policies set by the individual departments. This program offers students the opportunity to plan a unique and challenging academic program in cooperation with an Integrative Studies faculty mentor.

Students changing their majors to Integrative Studies must meet the program requirements described in the catalog extant at the time of the change, or they may meet program requirements described in a subsequent catalog. Any catalog that students are following must not be more than six years old at the time of graduation. It is not permissible to seek a double degree with the Bachelor of Integrative Studies serving as one of those degrees.

Students applying to the Integrative Studies program are first admitted to pre-Integrative Studies status. Students will be granted major standing upon approval of their Plan of Study and Rationale by the Integrative Studies Faculty Admissions Committee.

The Integrative Studies program is administered by the Department of Integrative Studies, 160 North Foundation Hall, (248) 370-3229.

Requirements for the Bachelor of Integrative Studies degree

To earn the Bachelor of Integrative Studies degree, students must meet the following requirements:

1. Successfully complete at least 28 credits from an approved plan of study (including the required capstone course) at Oakland University as an admitted candidate for the Bachelor of Integrative Studies degree, excluding courses used to meet the general education requirement. Candidacy is authorized by the university and the Faculty Council for Integrative Studies when a student's plan of study has been approved by the Integrative Studies Faculty Admissions Committee. If the plan of study is not submitted in a timely manner, the credits in any current semester may be excluded from the plan of study. (See advising below for additional information.)
2. Complete coursework on plan of study with a minimum grade of 2.0 in each course.
3. Complete the general education requirements that correspond with the student's admission date and transfer credit situation. (See Undergraduate degree requirements.)
4. Complete a minimum of 124 semester credits.
5. Complete 32 of those credits at the 300 or 400 levels.
6. Complete 32 credits at Oakland University; complete the last 4 credits toward the degree at Oakland University.
7. Complete the General Education capstone course HS 402.

BIS - Wayne Law Agreement

This 3 + 1 arrangement allows accepted students to complete their undergraduate degrees with three years of study at OU and one year at Wayne State University Law School. Interested students must qualify with a 3.4 minimum grade point average and admission into the BIS degree program, which takes the place of a traditional academic major.

Admission to BIS involves meeting with a professional adviser and a faculty mentor and completing the BIS application, which includes a plan for how the remaining OU credits up to 90 will be taken. The application is then reviewed for final approval by the BIS Faculty Review Committee.

Once students apply and are approved by BIS, they will later apply to Wayne Law. Wayne Law requires a minimum of 75 undergraduate credits for admission. Acceptance is done holistically relying heavily on LSAT scores and undergraduate grade point averages. Once admitted and the first year of law school successfully completed, students transfer their Wayne Law courses (30 credits) back to OU towards the fulfillment of their BIS degree requirements. To finish the BIS degree, students need to successfully complete the BIS capstone course at Oakland University, HS 402 (Field Experience in Integrative Studies).
Interested? Contact BIS at 248-370-3229 or bis@oakland.edu

Advising

Advising is central to the program as students design an individualized and unique course of study based upon their interests and needs. Students must follow a specific advising procedure as follows:

1. Complete the BIS e-plan available at https://www2.oakland.edu/secure/bis.
2. Meet with a Bachelor of Integrative Studies adviser in a preliminary appointment. The BIS adviser will explore the suitability of the program to student needs and interests and program and university requirements. The BIS adviser will also discuss student eligibility to enter the program. Students entering the program through a change of major or through the readmission process must have a cumulative grade point average of at least 2.00. Students on academic probation will not be considered for the program.
3. Develop a Plan of Study and Rationale. When Pre-Integrative Studies has been declared as a program of study, students will follow up with the BIS adviser to finalize their Plan of Study and Rationale. They will also complete applicable minor forms as indicated on their Plan of Study.
4. Arrange an appointment with the assigned faculty mentor. Students will initiate a meeting with the faculty mentor to discuss the courses on their Plan of Study as well as their Rationale.

5. Obtain Faculty Review Committee approval in conjunction with program application due dates (see website, www.oakland.edu/bis). After the faculty mentor approves the Plan of Study and Rationale, by signing the final plan, the Plan of Study and Rationale are returned to the Integrative Studies office and sent to the Faculty Admissions Committee for approval. When the Plan of Study and Rationale has been approved, the student will be granted major standing.

Two-Plus-Two program for associate degree holders

The Integrative Studies program allows students to combine courses from the university curriculum with associate degrees from Michigan community colleges. The two-plus-two program provides for transfer of up to 62 semester credits from accredited two-year community colleges in Michigan. Students with associate degrees in any area except nursing may qualify for the two-plus-two Integrative Studies program. Holders of associate degrees in nursing are subject to a course-by-course evaluation.

The program requires that courses accepted for transfer must have a grade of C or above, that at least 12 semester credits have been earned in liberal arts courses, and that all course-work has been taken at accredited institutions. Certain developmental courses may be subject to individual evaluation. For additional information, see the Transfer student information section of the catalog.

Concentrations or minors

Integrative Studies students may wish to develop programs that include concentrations or minors offered by other academic schools or departments within the university. Approximately 65 minors and concentrations are available to Integrative Studies students; a complete listing is available in the index of the undergraduate catalog under “minors” and “concentrations” respectively. Forms for written approval of concentrations or minors are available online and in the Integrative Studies office (160 North Foundation Hall).
Students should consult with an Integrative Studies adviser to determine policies and procedures on seeking minors or concentrations.

Conciliar honors

Conciliar honors are awarded to qualified Integrative Studies students. There are two ways in which students may earn conciliar honors. Students who have a cumulative grade point average of a 3.60 or better automatically receive conciliar honors. Students may be nominated for honors if they have a cumulative grade point average between 3.30 and 3.59; students may nominate themselves or be nominated by a faculty mentor or professional advisor. Consideration is given for excellence in scholarship, community and university experience and overcoming considerable adversity.

Major capstone and writing intensive course for Integrative Studies

All students admitted to the university beginning in Fall 2008 and after are required to complete the Integrative Studies capstone course, HS 402, to satisfy the university general education requirements. The course is offered through the School of Health Sciences. Specific offerings of the course for each term may be found in the Schedule of Classes.

HS 402 - Field Experience in Integrative Studies (4)
This course integrates previous academic course work into a coherent understanding of how the educational experience serves to enhance individual and community well Courses
•AHS 304 - Exercise Physiology
•AHS 306 - Exercise Physiology Laboratory
•AHS 335 - Health Care Safety
•AHS 340 - Delivering Safe Patient Care
•AHS 345 - Hospital Safety and Health
•AHS 401 - Human Pathology
•AHS 407 - Ergonomics in the Health Care Industry

•AHS 408 - Risk Reduction Safety Culture Improvement in Healthcare
•AHS 431 - Pharmacology
•AHS 450 - Law, Values and Health Care being. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience. Prerequisite(s): senior standing and completion of WRT 160 with at least a 2.0.

School of Health Sciences

3110 Human Health Building (248) 370-3562
Fax: (248) 364-8657
School Website: oakland.edu/shs/

Interim Dean: *Richard J. Rozek, Ph.D.*

Office of the Dean: *Scott Crabill, Ph.D., interim associate dean; Maria Ebner-Smith, assistant dean; Michelle D. Southward, director academic advising; Gennie S. Anderson, academic adviser; William L. Daniels, academic adviser, Nancy Osmialowski, academic adviser*

Board of Advisors

The Board of Advisors for the School of Health Sciences is composed of community leaders directly interested in issues of health and health care education. The Board helps the school encourage healthy living as a means to promote wellness and encourage safety maintenance in the home and work place. In addition, the Board helps the school develop curricula and continuing education initiatives to meet community needs regarding current knowledge about the delivery of health care. Board members offer advice on needed research and long-range planning for the school.

Members of the board of advisors are:

Henry D. Boutros, P.T., M.Ed., Partner, Core Expressions & Consulting
Vanett J. Capizzani, President, M. Rose Construction
Joseph H. Guettler, M.D., Performance Orthopedics, Director, Beaumont Sports Medicine Ed. and Research
Darryl C. Hill, Vice President, Safety and Health, Johnson Controls
John M. Hoffmann, Ph.D., Principal Investigator, Safety Engineering Laboratories Inc.
John Labriola, Consultant, Former Senior VP and Hospital Director, William Beaumont Hospital
Ewa M. Matuszewski, CEO, Medical Network One, P.C.
Charlene McPeak, Dean, Health & Human Services Career Programs, Macomb Community College
Moon J. Pak, M.D., Ph.D., Internal Medicine
Steve Piotrowski, VP for Clinical Operations, Theramatrix
Richard L. Slaughter, M.S., FCCP, Assistant Dean for Assessment & Accreditation, Wayne State University
Michael K. Stamper, Senior Manager, EHS, Chrysler Group, LLC
Teresa Stayer, Vice President, Spectra Med, Inc.
Jack Weiner, President and CEO, St. Joseph Mercy Oakland

General Information

The School of Health Sciences offers degree and non-degree programs in health and medically related fields. Bachelor of Science degree options include Applied Health Sciences, Health Sciences, Environmental Health and Safety, Biomedical Diagnostic and Therapeutic Sciences, and Wellness Health Promotion and Injury Prevention. Minors are offered in Exercise Science, Environmental Health and Safety, Nutrition and Health, and Wellness Health Promotion and Injury Prevention. The School of Health Sciences offers Master of Science degrees in Exercise Science and in Safety Management and a Master of Public Health degree. The School of Health Sciences also offers both an entry-level Doctor of Physical Therapy degree for students who want to become physical therapists, and a post-professional Doctor of Science in Physical Therapy degree for licensed physical therapists. Graduate certificates are available in orthopedic manual physical therapy, pediatric rehabilitation, orthopedics, neurological rehabilitation, teaching and learning for rehabilitation professionals, clinical exercise science, corporate and worksite wellness, and exercise science at the graduate level.

Continuing education is offered by the School of Health Sciences Center for Professional Development in order to meet the educational needs of health sciences professionals. Specialized contract programs are also provided to meet the unique professional staff development needs of employers in health care, business and industry, government and other settings. Programs are individually tailored to meet the specific workplace needs of professionals and employers. Programs and courses are offered either for university credit or noncredit. When noncredit programs and courses are offered, they carry the nationally recognized Continuing Education Unit (CEU).

Admission to any program offered by the School of Health Sciences may be considered on a competitive basis if the balance between applicants and available instructional resources requires such action to maintain the academic integrity of the program.

School programs with laboratory and internship components require that physical, cognitive, and psycho-social technical standards be met. Students with disabilities who have questions about meeting these standards are encouraged to contact the Office of Disability Support Services, 103A North Foundation Hall, (248) 370-3266.

High school students considering a major in any of the programs offered by the School of Health Sciences should consult the Admissions section of the catalog for specific preparation requirements.

The academic requirements for each of the baccalaureate programs of the School are described in the pages that follow. The requirements include prerequisite-level course-work that complements each program's core curriculum, the program major course requirements, and the university general education and U.S. diversity requirements. Students changing majors are required to follow the program requirements listed in the catalog no earlier than the one in effect at the time of admission to the new program. (A change from pre-major to major standing in the same field does not constitute a change of program).

Students transferring from other universities or colleges to Oakland University must have their transcripts evaluated by the School of Health Sciences to determine which core curriculum or program course-work requirements have been met. See Transfer student information for additional information.

Academic Advising

Professional academic advisers are available to assist students with degree requirements, plans of study, course scheduling, transfer course evaluation, establishing academic goals, health career choices and the process of achieving major standing. The School of Health Sciences academic advising office is located in 1014 Human Health Building. For advising appointments, please call (248) 370-2369. Freshman and transfer orientation is required of all entering students. Undecided health science students should meet with an academic adviser early in their programs of study. Thereafter, students are encouraged to make appointments with an academic adviser periodically to monitor their progress. School of Health sciences faculty members are also available to assist with curriculum and course questions once students are enrolled in health sciences major course work.

To avoid delays in seeing a professional academic adviser, students are encouraged to schedule advising appointments during times other than early registration periods. Academic advisers are here to assist students in planning for their major programs. Ultimately, students are responsible for understanding and fulfilling the degree requirements for graduation as set forth in this catalog.

Approved Minors

School of Health Sciences students may elect to complete a minor in another discipline offering such an option. It is recommended that students who are considering declaring a minor consult as early as possible with the School of Health Sciences academic adviser and the minor field adviser. Credits earned toward a degree in the School of Health Sciences can be counted also toward any minor to which they would otherwise apply that is offered by the other schools or the college.

School Honors

Honors are awarded to School of Health Sciences graduating students who have earned a GPA of 3.50 or above in courses completed in the School.

Petition of Exception

For students enrolled in School of Health Sciences programs, all petitions of exception must be reviewed by an academic adviser and the appropriate program director before referral to the School of Health Sciences Committee on Instruction. See the Academic Policies and Procedures section of the catalog for further information (Petition of exception).

Applied Health Sciences Program

Department Website: oakland.edu/shs/health-sciences/undergraduate-study/

Applied Health Sciences Program Director: *Patricia A. Wren*

Adjunct Instructor: *Jill Klaver, Teresa Taggart*

The Applied Health Sciences program is uniquely positioned to allow students to combine courses from the university curriculum with specific Associate of Applied Sciences (AAS) degrees from accredited community colleges. The two-plus-two degree completion program provides for the transfer of up to 65 semester credits from accredited two-year community colleges. Students who have completed AAS degrees in health-related fields including dental assisting, health information technology, medical assistant, occupational therapy assistant, pharmacy technician, physical therapist assistant, respiratory therapy, or surgical technology may qualify for the two-plus-two Applied Health Sciences program. Students with AAS degrees in a health-related field not listed may seek permission to enroll from the Applied Health Sciences Program Director. Concurrent enrollment in a community college AAS program and Oakland University's AHS program is not permitted.

The Applied Health Sciences program requires that courses accepted for transfer must have a grade of 2.0 or above, and that all course-work has been taken at accredited institutions. For additional information, see the Transfer student information section of the catalog.

Requirements for the B.S. degree with a major in Applied Health Sciences

1. Have already completed the course requirements for and earned the Associate of Applied Science degree in one of the following academic areas from an accredited community college or other institution of higher education:

dental assisting, health information technology, medical assistant, occupational therapy assistant, pharmacy technician, physical therapist assistant, respiratory therapy, or surgical technology. Students who hold an AAS degree in any other medical or health-related field not listed above may seek permission to enroll from the Applied Health Sciences Program Director.

2. Provide appropriate documentation of the AAS degree:

Submit official transcripts showing AAS degree and all coursework completed with a minimum 2.0 GPA. Concurrent enrollment in a community college AAS program and Oakland University's AHS program is not permitted.

3. Meet the university general education requirements

(see Undergraduate degree requirements). Note that some of the courses under #5 and 6 below satisfy general education requirements and Applied Health Sciences degree requirements. See courses marked with "*".

4. Complete the university U.S. diversity requirement.

For applied health sciences majors, this requirement is satisfied by completing HS 302.

5. Complete the following courses:

- AHS 340 - Delivering Safe Patient Care (4)
- AHS 345 - Hospital Safety and Health (4)
- HS 201 - Health in Personal and Occupational Environments (4)
- HS 302 - Community and Public Health (4)
- HS 450 - Law, Values and Health Care (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)
- *Courses that also satisfy the university general education requirement.

6. Select and complete the required courses from either the Health Care Leadership Track or Health Promotion Track

Health Care Leadership Track: A minimum of 20 credits of electives

- HRD 304 - Lean Principles and Practices in Organizations (4)
- HRD 306 - Introduction to Human Resource Development (4)
- HRD 307 - Presentation and Facilitation (4)
- HRD 308 - Principles of Leadership (4)
- HRD 351 - Fundamentals of Human Interaction (4)

Health Promotion Track: A minimum of 20 credits of electives

- AHS 335 - Health Care Safety (4)
- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) * and PHY 111 - General Physics Lab II (1)
- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 207 - Safety and First Aid in Exercise Settings (2)
- EXS 215 - Stress Management (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 312 - Community Nutrition (4)
- HS 313 - Nutrition and Culture (4)
- HS 320 - Nutrition and Physical Activity (2)
- HS 321 - Herbs Supplements Nutrition (2)
- HS 322 - Eating Disorders (2)
- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)

- HS 326 - Food Politics (2)
- HS 335 - Introduction to Environmental Health Sciences (4)
- HS 401 - Human Pathology (4)
- HS 402 - Field Experience in Integrative Studies (4)
- HS 405 - Special Topics (2 TO 4)
- HS 423 - Research Methods in the Health Sciences (4)
- HS 431 - Pharmacology (2)
- HS 435 - Environmental Justice (4)
- HS 441 - Integrative Holistic Medicine Principles and Practice (4)
- HS 455 - Qualitative Research Methods (4)
- HS 460 - Nutrient Metabolism (4)
- HS 465 - Social Determinants of Health (4)
- HS 490 - Directed Study (1 TO 4)
- MLS 201 - Careers in Biomedical Diagnostic and Therapeutic Sciences (1)
- MLS 205 - Contemporary Issues in Health Care Organizations and Practice (2)
- MLS 210 - Medical Terminology (1)
- MLS 226 - Introduction to Laboratory Theory and Techniques (2)
- MLS 312 - Hematology/Cellular Pathophysiology (3)
- MLS 313 - Immunohematology (4)
- MLS 314 - Hemostasis (3)
- MLS 327 - Clinical Chemistry (4)
- MLS 328 - Clinical Chemistry Laboratory (1)
- MLS 335 - Clinical Parasitology/Mycology/Virology (3)
- MLS 336 - Clinical Parasitology/Mycology/Virology Laboratory (1)
- MLS 400 - Medical Genetics (4)
- MLS 402 - Molecular Diagnostics (3)
- MLS 405 - Special Topics (1 TO 4)
- MLS 416 - Medical Hematology (4)
- MLS 417 - Hematology Laboratory (1)
- MLS 423 - Medical Immunology (3)
- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- MLS 432 - Medical Microbiology Laboratory (1)
- MLS 440 - Clinical Correlations (3)
- EHS 225 - Environmental Health and Safety Training Methods (3)
- EHS 235 - Occupational Safety and Health Standards (3)
- EHS 245 - Professional Practice and Leadership Development (3)
- EHS 330 - Safety and Health Administration and Programs (3)
- EHS 331 - Environmental Health and Safety Engineering and Technology (3)
- EHS 333 - Fire Prevention and Protection (3)
- EHS 334 - Applied Occupational Hygiene (3)
- EHS 335 - Fundamentals of Occupational Hygiene (3)
- EHS 336 - Applied Occupational Hygiene Laboratory (1)
- EHS 342 - Advanced Quantitative Methods for Environmental Health and Safety (4)
- EHS 423 - Radiation Safety (3)
- EHS 434 - Ventilation and Emerging Technologies (4)
- EHS 435 - Radiation Exposure Control (2)
- EHS 441 - Accident/Incident Investigation and Analysis (3)
- EHS 442 - Construction Safety (3)
- EHS 443 - Robotic and Automation System Safety Analysis (3)

- EHS 444 - Environmental Standards (3)
- EHS 445 - Introduction to Ergonomics (3)
- EHS 446 - Industrial and Environmental Toxicology (3)
- EHS 450 - Medical Geology (Geo-Medicine) (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 350 - Health Program Implementation (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 370 - Culture, Ethnicity and Well-being (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 402 - Senior Culminating Experience (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 460 - Evaluation of Health and Wellness Programs (4)
- WHP 461 - Modalities for Healing (4)
- WHP 462 - Healing Traditions (4)

7. Complete a total of 130 semester credits with a minimum of 32 credits at the 300-400 level required for graduation.

Exercise Science Program

Department Website: oakland.edu/shs/exercise-science/es/

Director:

Professors Emeritus: *Alfred W. Stransky, Robert W. Jarski*

Associate professors: *Brian R. Goslin, Tamara D. Hew-Butler, Charles R. C. Marks*

Assistant professor: *Myung D. Choi*

Clinical professors: *Barry A. Franklin, Steven J. Keteyian, Augustine L.Perrotta*

Clinical associate professors: *John F. Kazmierski, Creagh E. Milford, James L. Moeller, Rajendra Prasad*

Adjunct assistant professors: *Patricia Brooks, Scott Eathorne, Jack T.Wilson*

Clinical assistant professors: *Jeffrey H. Declaire, Albert A. DePolo, Johnathan Ehrman, Victoria Kimler, Andrew J. Madak*

Clinical instructors: *Mary Anne Mikus, Terry Dibble, Lucas Humphrey, Sheldon Levine*

The Exercise Science program offers elective courses for students interested in the relationship among physical activity, weight control, disease prevention, stress management and nutrition for optimal health and performance.

Opportunities exist for students to establish personal programs of exercise, weight control, nutrition, stress management and substance abuse avoidance. Disease prevention and quality of life are components of many of

the course offerings. Selecting courses in exercise science can be especially meaningful to students entering a health-related career, with the current emphasis placed on health promotion and disease prevention within the health care delivery system.

Students can complete a baccalaureate degree in Health Sciences with an Exercise Science academic concentration. See Health Sciences Program in this section of the catalog. For a description of the Master of Science in exercise science program, see the Oakland University Graduate Catalog.

Exercise Science Minor

A 22-credit minor in Exercise Science is available to students in any degree program seeking a formal introduction to the exercise science field. An undergraduate degree focusing on Exercise Science may be designed by including this minor in a Bachelor of Science in Wellness, Health Promotion & Injury Prevention, a Bachelor of Integrative Studies, or a Bachelor of Science in Health Sciences plan of work.

Courses required for the minor include

- HS 201 - Health in Personal and Occupational Environments (4)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 304 - Exercise Physiology (3) *
- EXS 306 - Exercise Physiology Laboratory (1) *
- EXS 350 - Human Motion Analysis (4) *

and 6 credits from the following electives

- EXS 103 - Exercise (Strength Training) and Health Enhancement (2) *
- EXS 105 - Cardiovascular Fitness Training (2) *
- EXS 106 - Exercise (Judo) and Health Enhancement (2)
- EXS 202 - Introduction to Exercise Science (2)
- EXS 203 - Group Exercise Instruction I (2)
- EXS 205 - Group Exercise Instruction II (2)
- EXS 207 - Safety and First Aid in Exercise Settings (2) *
- EXS 215 - Stress Management (2)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 415 - Exercise Endocrinology (2)
- EXS 421 - Basic Athletic Training (2)
- EXS 426 - Exercise Electrocardiography (2)
- EXS 436 - Environment and Human Performance (2)
- EXS 441 - Obesity and Physical Activity (2)
- EXS 445 - Physical Activity and Aging (2)
- EXS 450 - Children and Exercise (2)
- EXS 460 - Healthy Lifestyle Choices (2)
- EXS 465 - Corporate and Worksite Wellness Programs (2)
- EXS 470 - Introduction to Personal Training (2)
- EXS 475 - Advanced Personal Training (2)
- EXS 483 - Special Topics (1 TO 4)
- EXS 493 - Directed Study and Research (1 TO 4) (2 credits maximum)
- WHP 208 - Advanced First Aid/CPR Instruction (2)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 420 - Injury Prevention and the Environment (4)

Additional Information

Courses denoted with an asterisk (*) represent prerequisite courses for admission to the Master of Science in Exercise Science program. An additional prerequisite for admission to this graduate program is STA 225 or STA 226 or PSY 251.

Health Sciences Program

Department Website: oakland.edu/shs/health-sciences/undergraduate-study/

Health Sciences Program Director: *Patricia A. Wren*

Professors Emeritus*: Kenneth R. Hightower, Ronald E. Olson, Philip Singer*

Associate professors: *Jennifer F. Lucarelli, Richard J. Rozek, Patricia A. Wren*

Assistant professors: *Rebecca Cheezum, Amanda Lynch, Mozhgon Rajaee, Melissa Reznar*

Visiting Assistant professor*: Laurel Stevenson*

Clinical professors: *Craig Hartrick, Moon J. Pak*

Clinical associate professor: *Joseph H. Guettler*

Clinical instructors: *Sarah Hojnacki, Maureen Husek, Barbara Main, Donna Morrison, Jeanne Stevenson*

Special lecturers: *James Boniface, Terry Dibble, Marjorie Lang, Bonita Leavell*

A Bachelor of Science in Health Sciences degree combines a broad spectrum of liberal arts, basic sciences, social sciences and health sciences course requirements and electives for students who desire a generalized health sciences academic credential. In addition, students choose one of six academic concentrations to obtain greater exposure to a specific health discipline. These six academic specialties include exercise science, integrative holistic medicine, nutrition and health, pre-health professional, pre-pharmacy, and pre-physical therapy. Students completing the exercise science concentration obtain all the academic course prerequisites necessary for consideration for admission to the Master of Science in exercise science program. The integrative holistic medicine concentration prepares students for many traditional and non-traditional health and service-oriented professions and graduate programs. The nutrition and health concentration prepares students to deliver community nutrition interventions as well as apply for graduate programs in public health as well as registered dietetics. The pre-health professional concentration area incorporates basic science courses to prepare students for the traditional application requirements for public health, medical, dental, optometric, physician assistant and other professional schools. The pre-pharmacy concentration area prepares students for application to the Doctor of Pharmacy program at Wayne State University and other institutions. Students completing the pre-physical therapy concentration area obtain all the academic course prerequisites necessary for consideration for admission to the Oakland University Doctor of Physical Therapy (DPT) Program as well as those at other institutions.

Requirements for the B.S. degree with a major in Health Sciences (concentration in exercise science, integrative holistic medicine, nutrition and health, pre-health professional studies, pre-pharmacy, or pre-physical therapy)

1. Meet the university general education requirements

(see Undergraduate degree requirements). Note that several courses under #3 below satisfy general education requirements and Health Sciences degree requirements. See courses marked with "*".

2. Complete the university U.S. diversity requirement.

For health sciences majors, this requirement is satisfied by completing HS 302.

3. Complete the prescribed number of credits from the following courses

- BIO 111 - Biology I (4) *
- BIO 205 - Human Anatomy (4)
- BIO 206 - Human Anatomy Laboratory (1) or BIO 322 - Physiology Laboratory (1)
- BIO 207 - Human Physiology (4) or BIO 321 - Medical Physiology (4)
- HS 201 - Health in Personal and Occupational Environments (4) *
- HS 302 - Community and Public Health (4) *
- HS 450 - Law, Values and Health Care (4)
- PSY 100 - Introduction to Psychology (4) *
- *Courses that also satisfy the university general education requirement.

4. Complete the course requirements specified under one of the following academic concentration areas (exercise science, integrative holistic medicine, nutrition and health, pre-health professional studies, pre-pharmacy or pre-physical therapy).

Exercise science academic concentration course requirements

Students completing the Bachelor of Science in health sciences with an academic concentration in exercise science must complete a minimum of 128 credits, including the following courses:

1. Required courses

- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) * and PHY 111 - General Physics Lab II (1)
- or
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- EXS 103 - Exercise (Strength Training) and Health Enhancement (2)
- EXS 105 - Cardiovascular Fitness Training (2)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 207 - Safety and First Aid in Exercise Settings (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- EXS 401 - Practicum in Exercise Science (5)
- HS 441 - Integrative Holistic Medicine Principles and Practice (4)
- PSY 250 - Research Design in Psychology (4)
- PSY 344 - Behavior Analysis (4) PREFERRED
- or
- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)

- PSY 333 - Motivation (4)
- PSY 345 Health Psychology (4) (formerly PSY 338)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

2. Complete a minimum of 16 credits (minimum of 6 credits at 300 level or above – minimum of 4 credits must be chosen from exercise science courses) from these EXS concentration elective courses

- EXS 202 - Introduction to Exercise Science (2)
- EXS 203 - Group Exercise Instruction I (2)
- EXS 205 - Group Exercise Instruction II (2)
- EXS 215 - Stress Management (2)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 415 - Exercise Endocrinology (2)
- EXS 416 - Physical Activity Epidemiology (2)
- EXS 421 - Basic Athletic Training (2)
- EXS 426 - Exercise Electrocardiography (2)
- EXS 436 - Environment and Human Performance (2)
- EXS 441 - Obesity and Physical Activity (2)
- EXS 445 - Physical Activity and Aging (2)
- EXS 450 - Children and Exercise (2)
- EXS 460 - Healthy Lifestyle Choices (2)
- EXS 465 - Corporate and Worksite Wellness Programs (2)
- EXS 470 - Introduction to Personal Training (2)
- EXS 475 - Advanced Personal Training (2)
- EXS 483 - Special Topics (1 TO 4)
- EXS 493 - Directed Study and Research (1 TO 4)
- HS 101 - Careers in Health (1)
- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 312 - Community Nutrition (4)
- HS 313 - Nutrition and Culture (4)
- HS 320 - Nutrition and Physical Activity (2)
- HS 321 - Herbs Supplements Nutrition (2)
- HS 322 - Eating Disorders (2)
- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 326 - Food Politics (2)
- HS 335 - Introduction to Environmental Health Sciences (4)
- HS 401 - Human Pathology (4)
- HS 402 - Field Experience in Integrative Studies (4)
- HS 405 - Special Topics (2 TO 4)
- HS 423 - Research Methods in the Health Sciences (4)
- HS 431 - Pharmacology (2)
- HS 435 - Environmental Justice (4)
- HS 441 - Integrative Holistic Medicine Principles and Practice (4)
- HS 455 - Qualitative Research Methods (4)

- HS 460 - Nutrient Metabolism (4)
- HS 465 - Social Determinants of Health (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 311 - Community Emergency Response Team (CERT) Preparedness (2)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 360 - Wellness Facilitation (4)
- WHP 370 - Culture, Ethnicity and Well-being (4)
- WHP 420 - Injury Prevention and the Environment (4)
- or any other course approved by the program director in writing through approved petition of exception form

Integrative holistic medicine concentration course requirements

Students completing the Bachelor of Science in health sciences with an academic concentration in integrative holistic medicine must complete a minimum of 128 credits, including the following courses:

1. Required courses

- HS 441 - Integrative Holistic Medicine Principles and Practice (4)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 350 - Health Program Implementation (4)
- WHP 370 - Culture, Ethnicity and Well-being (4)
- WHP 361Modalities for Healing (4)
- WHP 362 - Healing Traditions (4)
- PSY 250 - Research Design in Psychology (4)
- PSY 318 - Biological Psychology (4)

2. Complete a minimum of 41 credits from these IHM concentration elective courses

- AHS 335 - Health Care Safety (4)
- AHS 345 - Hospital Safety and Health (4)
- AHS 408 - Risk Reduction Safety Culture Improvement in Healthcare (2)
- BIO 116 - Biology Laboratory (1)
- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 315 - Fundamentals of Biochemistry (4)
- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)
- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)
- BIO 325 - Biochemistry I (4)
- BIO 326 - Biochemistry I Laboratory (1)
- BIO 341 - Genetics (4)
- BIO 342 - Genetics Laboratory (1)
- CHM 144 - General Chemistry I (4) and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 453 - Biochemistry I (3)

- CHM 454 - Biochemistry II (3)
- CHM 457 - Biochemistry Laboratory (3)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 207 - Safety and First Aid in Exercise Settings (2)
- EXS 215 - Stress Management (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 416 - Physical Activity Epidemiology (2)
- EXS 421 - Basic Athletic Training (2)
- EXS 441 - Obesity and Physical Activity (2)
- EXS 460 - Healthy Lifestyle Choices (2)
- EXS 470 - Introduction to Personal Training (2)
- HS 101 - Careers in Health (1)
- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 322 - Eating Disorders (2)
- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 326 - Food Politics (2)
- HS 335 - Introduction to Environmental Health Sciences (4)
- HS 401 - Human Pathology (4)
- HS 402 - Field Experience in Integrative Studies (4)
- HS 405 - Special Topics (2 TO 4)
- HS 423 - Research Methods in the Health Sciences (4)
- HS 431 - Pharmacology (2)
- HS 435 - Environmental Justice (4)
- HS 455 - Qualitative Research Methods (4)
- HS 460 - Nutrient Metabolism (4)
- HS 465 - Social Determinants of Health (4)
- MLS 210 - Medical Terminology (1)
- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- MLS 432 - Medical Microbiology Laboratory (1)
- PHY 101 - General Physics I (4)
- PHY 102 - General Physics II (4)
- PHY 108 - Principles of Physics I (4)
- PHY 109 - Principles of Physics II (4)
- PHY 151 - Introductory Physics I (4)
- PHY 152 - Introductory Physics II (4)
- PHY 326 - Medical Physics (4)
- PSY 321 - Child Development (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 333 - Motivation (4)
- SOC 328 - Sociology of Health and Medicine (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (1 TO 4)
- WHP 420 - Injury Prevention and the Environment (4)
- WHP 431 - Crisis Intervention and Prevention of Self Harm (4)
- or any other course approed by the program director in writing through approved petition of exception form.

Nutrition and Health academic concentration course requirements

1. Required courses

Students completing the Bachelor of Science in health sciences with an academic concentration in nutrition and health must complete 124 credits, including the following courses:

- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) * and PHY 111 - General Physics Lab II (1)
- or
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 312 - Community Nutrition (4)
- HS 313 - Nutrition and Culture (4)
- HS 460 - Nutrient Metabolism (4)
- MTH 141 - Precalculus (4) or MTH 154 - Calculus I (4)
- PSY 250 - Research Design in Psychology (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

2. Complete a minimum of 17 credits from the following:

(At least 8 credits at 300-400 level and at least 4 credits must be Nutrition courses -
HS 320, HS 321, HS 322, HS 323, HS 324, HS 325)

- BIO 491 - Selected Topics in Biology (1 TO 5)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- EXS 215 - Stress Management (2)
- EXS 350 - Human Motion Analysis (4)
- HS 101 - Careers in Health (1)
- HS 320 - Nutrition and Physical Activity (2)
- HS 321 - Herbs Supplements Nutrition (2)
- HS 322 - Eating Disorders (2)
- HS 323 - Foodborne Illnesses (2)

- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 335 - Introduction to Environmental Health Sciences (4)
- HS 401 - Human Pathology (4)
- HS 402 - Field Experience in Integrative Studies (4)
- HS 405 - Special Topics (2 TO 4)
- HS 423 - Research Methods in the Health Sciences (4)
- HS 435 - Environmental Justice (4)
- HS 455 - Qualitative Research Methods (4)
- HS 460 - Nutrient Metabolism (4)
- HS 465 - Social Determinants of Health (4)
- MLS 201 - Careers in Biomedical Diagnostic and Therapeutic Sciences (1)
- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- MLS 431 - Clinical Microbiology Laboratory (1)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 333 - Motivation (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (1 TO 4)
- WHP 420 - Injury Prevention and the Environment (4)
- or any other course approved by the program director in writing through approved petition of exception form

Pre-health professional academic concentration course requirements

Students completing the Bachelor of Science in health sciences with an academic concentration in Pre-Health Professional studies must complete a minimum of 130 credits, including the following courses:

- STA 225 - Introduction to Statistical Concepts and Reasoning (4)
- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) and PHY 111 - General Physics Lab II (1)
- or
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- BIO 113 - Biology II (4) *
- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)

- MLS 425 - Medical Biochemistry (4) or BIO 325 - Biochemistry I (4)
- MTH 141 - Precalculus (4) or MTH 154 - Calculus I (4)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4) or PSY 250 Research Design in Psychology (4)
- HS 205 - Human Nutrition and Health (4)
- HS 401 - Human Pathology (4)

*Courses that also satisfy the university general education requirement.

1. Complete a minimum of 19 credits from the following: (At least 16 credits at 300-400 level)

- AHS 335 - Health Care Safety (4)
- AHS 340 - Delivering Safe Patient Care (4)
- AHS 345 - Hospital Safety and Health (4)
- BCM 453 - Biochemistry I (3)
- BIO 116 - Biology Laboratory (1)
- BIO 300 - Biology and Society (4)
- BIO 301 - Ecology (5)
- BIO 303 - Field Biology (4)
- BIO 315 - Fundamentals of Biochemistry (4)
- BIO 319 - General Microbiology (4)
- BIO 320 - General Microbiology Laboratory (1)
- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)
- BIO 325 - Biochemistry I (4)
- BIO 326 - Biochemistry I Laboratory (1)
- BIO 341 - Genetics (4)
- BIO 342 - Genetics Laboratory (1)
- CHM 453 - Biochemistry I (3)
- CHM 454 - Biochemistry II (3)
- CHM 457 - Biochemistry Laboratory (3)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 416 - Physical Activity Epidemiology (2)
- EXS 421 - Basic Athletic Training (2)
- EXS 441 - Obesity and Physical Activity (2)
- EXS 460 - Healthy Lifestyle Choices (2)
- NRS 221 - Nursing Informatics (2)
- NRS 227 - Pathophysiology (3)
- NRS 308 - Pharmacology in Nursing (3)
- MLS 210 - Medical Terminology (1)
- MLS 430 - Clinical Microbiology (4)
- MLS 432 - Medical Microbiology Laboratory (1)
- PSY 301 - The Psychology of Human Sexuality (4)
- PSY 302 - Evolution, Science, and Superstition (4)
- PSY 303 - Evolutionary Psychology (4)
- PSY 304 - Animal Behavior (4)

- PSY 310 - Creativity and Innovation (4)
- PSY 316 - Cognitive Psychology (4)
- PHY 326 - Medical Physics (4)
- PSY 318 - Biological Psychology (4)
- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 330 - Social Cognition (4)
- PSY 333 - Motivation (4)
- PSY 334 - Industrial and Organizational Psychology (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 350 - Health Program Implementation (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 420 - Injury Prevention and the Environment (4)
- WHP 431 - Crisis Intervention and Prevention of Self Harm (4)

or any other course approvd by the program director in writing through approved petition exception form

Professional School Admission Requirements

Students are required to review the professional school admission requirements before selecting elective credits.

Pre-pharmacy academic concentration course requirements

Students completing the Bachelor of Science in Health Sciences with an academic concentration in pre-pharmacy must complete a minimum of 124 credits. Completion of this concentration requires at least one year of a professional accredited pharmacy school with a minimum of 20 credits of professional PharmD coursework.

Including:

- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) * and PHY 111 - General Physics Lab II (1)
- or
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)
- HS 401 - Human Pathology (4)
- MLS 210 - Medical Terminology (1)
- MLS 425 - Medical Biochemistry (4) or COM 201 - Public Speaking(4) or BIO 341 - Genetics(4)
- MLS 430 - Clinical Microbiology (4)
- MLS 432 - Medical Microbiology Laboratory (1)
- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)

- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- COM 101 - Collegiate Communication (1)
- MTH 154 - Calculus I (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

Pre-Pharmacy Tracks

If admitted to the WSU PharmD program through HealthProStart OU, students complete the following courses their senior year taught at Wayne State University: PSC 3110 - Pharmaceutical Biochemistry (3), PSC 3120 Dosage Form Design & Bioph (4), PPR 3020 Intro to Patient Care I (2), PPR 3040 Patient Care I Lab (1), PHA 3030 Pharm Calc & Descriptive Stats (1), PSC 3210 Biotechnology in Therapeutics (2), PPR 3120 Pharmacy Jurisprudence (2), PPR 3060 Patient Care II (2), PPR 3070 Patient Care II Lab (1), PPR 3040 Medical Informatics (2). It is recommended that students consult with the academic adviser prior to enrolling in any of these classes. Admission into an accredited PharmD program is required to complete this maturation.

There are two tracks for students pursuing a Bachelor of Science in health sciences at Oakland University with a pre-pharmacy concentration and a Doctor of Pharmacy (Pharm D) at Wayne State University.

TRACK ONE: Oakland University "Health Pro Start" (for entering first year students only):

High school GPA of 3.75 (recalculated, including weighting for AP/honors classes)
Minimum ACT equivalent composite score of 27 (or SAT equivalent composite score).
Explanation of experience (describe the amount of time devoted to the activity) in these areas:

- Health care
- Community service
- Team activities (for example athletics, debate)
- Leadership
- High school extracurricular activities
- Employment
- Summer activities

One-page typed essay describing why you are pursuing HealthPro Start and why you should be accepted.
Two letters of recommendation, one apiece from the following two categories:

- High school teacher, counselor or administrator familiar with the applicant's extracurricular activities, team and/or leadership skills; and
- Non-family member who can address the applicant's health care experience, community service and/or employment

If you meet the minimum requirements and complete a separate HealthPro Start OU application, you will be invited to campus for a series of interviews with representatives from the Eugene Applebaum College of Pharmacy and Health Sciences at Wayne State University.

Once at Oakland University, Wayne State University/Oakland University "Health Pro Start" Track One participants must:

- ALL UNDERGRADUATE COURSES MUST BE COMPLETED AT OAKLAND UNIVERSITY; NO TRANSFER COURSES ARE ALLOWED
- Maintain a GPA at or above 3.3 during the first year in college
- Maintain an overall 3.5 GPA after the first year in college
- Maintain an overall 3.0 grade point average in biology, chemistry, physics, and math courses
- Complete all prerequisite course work for the program with a grade of "C" (2.0) or better. No repeated courses are allowed
- Make regular progress towards the B.S. Degree in Health Sciences from Oakland University
- Complete all academic and nonacademic entrance requirements of the Doctor of Pharmacy program (see http://pharmacy.wayne.edu for the latest requirements)
- Participate in the WSU/OU HealthPro Start Seminar and mentor process
- Demonstrate continuing activity in related volunteer work
- Take the PCAT (http://www.pcatweb.info/) by the July test date of their junior year, scoring minimum of 50th percentile on the PCAT.
- Student must successfully be interviewed by representatives from the Eugene Applebaum College of Pharmacy and Health Sciences at Wayne State University during the admissions cycle for the year they are to matriculate into the Doctor of Pharmacy Program.
- Complete the application for admission to the Doctor of Pharmacy program at www.pharmcas.org.

TRACK TWO: Competitive Admission Criteria for students who do not meet admission criteria for Health Pro Start or who are already enrolled at OU:

- Minimum 3.3 GPA
- All program pre-requisites completed with the minimum GPA required
- To be considered, the applicant must successfully complete the academic and non-academic admission requirements and submit all of the appropriate applications
- Students should declare their intent to enter into the doctor of pharmacy program, just prior to their sophomore year
- For the Doctor of Pharmacy program, students must take the PCAT (http://www.pcatweb.info/) on the October test date of their junior year, scoring above the 70th percentile on PCAT with no sub score (Writing, Verbal, Biology, Quantitative) below the 50th percentile
- Student must successfully be interviewed by representatives from the Eugene Applebaum College of Pharmacy and Health Sciences at Wayne State University
- Students must be admitted to the WSU PharmD program before graduation.

Notification of formal admission into the doctor of pharmacy will be provided to the student before the completion of their junior year.

Pre-Physical therapy academic concentration course requirements

Students completing the Bachelor of Science in health sciences with an academic concentration in pre-physical therapy must complete a minimum of 124 credits.

1. Required courses

- PHY 101 - General Physics I (4) * and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) * and PHY 111 - General Physics Lab II (1)
- or
- PHY 151 - Introductory Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 152 - Introductory Physics II (4) and PHY 111 - General Physics Lab II (1)

- CHM 144 - General Chemistry I (4) * and CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4) and CHM 148 - General Chemistry Laboratory II (1)
- HS 401 - Human Pathology (4)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 207 - Safety and First Aid in Exercise Settings (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- MLS 210 - Medical Terminology (1)
- PSY 250 - Research Design in Psychology (4)
- MTH 141 - Precalculus (4) or MTH 154 - Calculus I (4)
- PT 302 - Physical Therapy as a Profession (2)
- PT 421 - Basic Athletic Training (2)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4)

+ choose one of the following

- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)

2. Complete a minimum of 12 elective credits from the following: (At least 8 credits at 300-400 level)

Courses cannot be used to satisfy both concentration requirements and the major core requirments.

- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 415 - Exercise Endocrinology (2)
- EXS 426 - Exercise Electrocardiography (2)
- EXS 436 - Environment and Human Performance (2)
- EXS 441 - Obesity and Physical Activity (2)
- EXS 445 - Physical Activity and Aging (2)
- EXS 450 - Children and Exercise (2)
- EXS 460 - Healthy Lifestyle Choices (2)
- EXS 465 - Corporate and Worksite Wellness Programs (2)
- EXS 493 - Directed Study and Research (1 TO 4)
- HS 205 - Human Nutrition and Health (4)
- BIO 323 - Developmental Biology (4)
- BIO 324 - Developmental Biology Laboratory (1)
- BIO 325 - Biochemistry I (4)
- BIO 326 - Biochemistry I Laboratory (1)
- BIO 341 - Genetics (4)
- CHM 453 - Biochemistry I (3)
- CHM 454 - Biochemistry II (3)
- CHM 457 - Biochemistry Laboratory (3)
- HS 101 - Careers in Health (1)
- HS 310 - Nutrition and Lifecycles (4)
- HS 322 - Eating Disorders (2)

- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 326 - Food Politics (2)
- PHY 326 - Medical Physics (4)
- PSY 321 - Child Development (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 333 - Motivation (4)
- PSY 345 - Health Psychology (4)
- PT 490 - Directed Study (1 TO 4)
- SOC 328 - Sociology of Health and Medicine (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 350 - Health Program Implementation (4)
- WHP 360 - Wellness Facilitation (4)
- WHP 370 - Culture, Ethnicity and Well-being (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 420 - Injury Prevention and the Environment (4)
- WHP 431 - Crisis Intervention and Prevention of Self Harm (4)
- or any other course approved by the program director in writing through approved petition of exception form

Nutrition and Health Minor

A minor in Nutrition and Health is available to students in any degree program. A total of 22 credits are required for the minor including 18 core credits and 4 elective credits. A minimum GPA of 2.00 is required in each course for the minor.

Courses required for the minor (18 credits):

- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 312 - Community Nutrition (4)
- HS 313 - Nutrition and Culture (4)

Choose 4 credits of electives from the following courses:

- HS 320 - Nutrition and Physical Activity (2)
- HS 321 - Herbs Supplements Nutrition (2)
- HS 322 - Eating Disorders (2)
- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 460 - Nutrient Metabolism (4)

Biomedical Diagnostic and Therapeutic Sciences Program

Department Website: oakland.edu/shs/biomedical-diagnostic-and-therapeutic-science/

Director: *J. Lynne Williams*

Professor: *J. Lynne Williams*

Associate professors*: Sumit Dinda*

Assistant professors: *Kristin Landis-Piwowar*

Special Instructor: *Lindsy Hengesbach*

Adjunct Instructor: *Terese Trost, Bill Van Dyke*

Clinical professors: *Janice Campbell, Vinod Shidham, Dafang Wu*

Clinical associate professors: *Barbara Anderson, Ann Marie Blenc, Inga Grills, Carol Holland, Barbara O'Malley*

Clinical assistant professors: *Craig Basmaji, Christopher Wienczewski*

Clinical instructors: *Sarah Bajer, Laura Bergsman, Cheryl Culver-Schultz, Lisa DeCeuninck, Nancy Lamers, Christina Lim, JoAnne Logue-O'Malley, Muriel Morrison, Laura L. Ochs, Shruti Patel, Nancy E. Ramirez, Joyce A. Salancy, Theresa Taggart, Dawn Taylor*

The Biomedical Diagnostic and Therapeutic Sciences program is designed to prepare students for professional opportunities in a variety of settings. Graduates may find employment in hospital or commercial clinical laboratories, research laboratories or public health facilities. Positions within biomedical corporations, including research and development, quality assurance and sales or service may also be prospective sources for employment. Furthermore, because it meets basic academic requirements, the Biomedical Diagnostic and Therapeutic Sciences curriculum provides excellent preparation for entry into post-baccalaureate professional programs including physician assistant, medicine, dentistry and osteopathy.

Biomedical sciences is a diversified field. In response to new technologies, many areas of specialization have evolved within the profession to ensure the expertise of individuals performing the required tasks. The Biomedical Diagnostic and Therapeutic Sciences program at Oakland University addresses several specializations including medical laboratory science, histotechnology, nuclear medicine technology, and radiologic technology. As health care professionals, biomedical scientists play an integral part in patient care. Some are involved in detection and diagnosis of disease. Others provide therapy to patients. In general, histotechnologists are involved in the diagnosis of disease based on alterations in cells or tissues (anatomic pathology). Medical laboratory scientists perform a wide variety of tests, including chemical, microscopic, bacteriological and immunological procedures used in the diagnosis and study of disease (clinical pathology). Nuclear medicine technologists use small amounts of radioactive materials for diagnostic evaluation of the anatomic or physiologic conditions of the body and to provide therapy with radioactive sources. Radiologic technologists utilize ionizing radiation to image internal structures of the body (x-ray and subspecialities).

Generally, employment in a hospital or community clinical laboratory requires certification in a specialization field. Students are eligible to sit for national certification examinations in their specialization upon

completion of the appropriate clinical internship at an accredited institution. Professional certification is obtained by successfully passing the examination.

Admission to Specializations

Students may be admitted as Biomedical Diagnostic and Therapeutic Science majors directly from high school or by transfer from other colleges or universities. As described below (Admission to clinical specialization internship), with the exception of medical laboratory science, students have the option of earning the Biomedical Diagnostic and Therapeutic Sciences degree by completing a hospital-based clinical specialization internship program. Acceptance into the internship programs is competitive and is based on grade point average, personal interview and letters of recommendation. The application process for each of the specializations is unique. Students are advised to read carefully about their chosen specialization. In some cases it is the policy of the affiliate institution that a criminal background check at the student's expense is required for acceptance into a clinical program.

All students should select their desired area of specialization by the end of sophomore year, as the coursework in the junior year is different for each specialization. They must complete a departmental student profile at this time. The actual acceptance into a student's chosen clinical program (specialization) shall define specialization standing for course prerequisites and professional course requirements. The junior and senior year curricula will vary depending upon the specialization.

Graduation without a Specialization

Students not wishing to pursue professional certification or not accepted by a clinical internship program may complete the Biomedical Diagnostic and Therapeutic Sciences degree by following the academic program for the specialization of their choice, or Biomedical Diagnostic and Therapeutic Sciences Pre-Professional concentration, and substituting adviser-approved electives for the clinical year (internship) course work. Such students may still be eligible to apply for clinical internship opportunities either before or after graduation, if desired.

Requirements for the B.S. degree with a major in Biomedical Diagnostic and Therapeutic Sciences

Students pursuing specializations in histotechnology, nuclear medicine technology, or radiologic technology must complete a minimum of 136 credits, including the following requirements. Students pursuing the specialization in medical laboratory science or graduating with a Pre-Professional Concentration must complete a minimum of 128 credits, including the following requirements.

Pre-Professional component

1. Meet the university general education requirements (see Undergraduate degree requirements). Note that several courses under requirement number three below satisfy general education requirements and Biomedical Diagnostic and Therapeutic Sciences degree requirements. See courses marked with "*"
2. Complete the university U.S. diversity requirement.
3. Complete the Biomedical Diagnostic and Therapeutic Sciences core curriculum.

Professional program

1. Complete the specialization course requirements specified under one of the four Biomedical Diagnostic and Therapeutic Sciences specializations (medical laboratory science, histotechnology, nuclear medicine technology, or radiologic technology) OR Complete course requirements specified under Pre-Professional concentration.
2. Complete all Biomedical Diagnostic and Therapeutic Sciences major program course-work with a cumulative GPA of 2.80 or higher.

Biomedical Diagnostic and Therapeutic Sciences core curriculum courses

- BIO 111 - Biology I (4) *
- BIO 205 - Human Anatomy (4)
- BIO 206 - Human Anatomy Laboratory (1)
- BIO 207 - Human Physiology (4) *
- CHM 144 - General Chemistry I (4) *
- CHM 147 - General Chemistry Laboratory I (1)
- CHM 145 - General Chemistry II (4)
- CHM 148 - General Chemistry Laboratory II (1)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4) * or STA 226 - Applied Probability and Statistics (4)
- MLS 201 - Careers in Biomedical Diagnostic and Therapeutic Sciences (1)
- MLS 205 - Contemporary Issues in Health Care Organizations and Practice (2)
- MLS 210 - Medical Terminology (1)
- MLS 226 - Introduction to Laboratory Theory and Techniques (2) (not required for RAD specialization)
- HS 450 - Law, Values and Health Care (4)
- WRT 150 - Composition I (4) or 4 approved elective credits

Admission to clinical specialization internship

To be accepted in a clinical specialization internship, students must submit a formal application for each program for which they seek consideration. Applications for the histotechnology and radiologic technology internship programs are processed in the winter semester of the sophomore year (or Winter semester following completion of the Biomedical Diagnostic and Therapeutic Sciences core curriculum). Applications for nuclear medicine internships are processed during the winter semester of the junior year and applications for the MLS internships are processed during the summer prior to the senior year. It is recommended that students have at least a 3.00 overall GPA. Students with lower grade point averages may be admitted provisionally pending satisfactory completion of appropriate fall semester, junior-year course work. Students should check the clinical program's websites for exact application dates.

Grade point policy

Students must maintain a cumulative GPA of 2.80 in all course-work applied to the Biomedical Diagnostic and Therapeutic Sciences major. Students in a specialization will be placed on probation if they earn a grade less than 2.0 in any course or if their cumulative grade point average in major course-work falls below 2.80. Students who earn a second grade less than 2.0 must have their programs reviewed by the faculty to determine remediation or termination from the program.

In order to remove probationary status, students must raise their cumulative major grade point average to 2.80 or higher.

Specialization in medical laboratory science (medical technology)

Medical laboratory scientists perform diagnostic tests that provide important information to determine the presence, extent or absence of disease as well as data to evaluate the effectiveness of treatment. They work with all types of body tissues and fluids, from blood and urine to cell samples. Major areas of specialization within the laboratory include hematology, clinical chemistry, microbiology, serology, urinalysis, immunohematology (blood bank) and molecular diagnostics.

Students may apply for specialization standing in MLS after completing the BDTS core curriculum, generally at the end of the sophomore year. The junior and senior years consist of the prescribed professional course requirements at Oakland University. A clinical internship is required for national certification as a medical

laboratory scientist (certification required for most hospital and private laboratory employment positions). Application to clinical internship (if desired) is made during the summer semester prior to the senior year. Internships are between six and ten months in length (depending on the clinical site), and are done post-graduate. Oakland University is affiliated with the following accredited MLS clinical programs: Detroit Medical Center University Laboratories, Detroit; Hurley Medical Center, Flint; St. John Providence Health System, Detroit and William Beaumont Hospital, Royal Oak**. Acceptance into the internship program is competitive and based on grade point average, personal interview, and letters of recommendation.**

Medical laboratory science specialization professional course requirements

Students in the medical laboratory science specialization must complete the following courses:

- PHY 108 - Principles of Physics I (4)
- PHY 109 - Principles of Physics II (4)
- CHM 234 - Organic Chemistry I (4)
- MLS 313 - Immunohematology (4)
- MLS 314 - Hemostasis (3)
- MLS 327 - Clinical Chemistry (4)
- MLS 328 - Clinical Chemistry Laboratory (1)
- MLS 335 - Clinical Parasitology/Mycology/Virology (3)
- MLS 336 - Clinical Parasitology/Mycology/Virology Laboratory (1)
- MLS 400 - Medical Genetics (4)
- MLS 402 - Molecular Diagnostics (3)
- MLS 416 - Medical Hematology (4)
- MLS 417 - Hematology Laboratory (1)
- MLS 423 - Medical Immunology (3)
- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- MLS 431 - Clinical Microbiology Laboratory (1)
- MLS 440 - Clinical Correlations (3)

And five elective credits from the following courses:

- PSY 225 Introduction to Life-Span Developmental Psychology (4)
- HS 201 Health in Personal and Occupational Environments (4)
- HS 205 Human Nutrition and Health (4)
- MTH 141 Precalculus (4)
- MTH 154 Calculus I (4)
- PHY 110 General Physics Lab I (1) or
- PHY 111 General Physics Lab II (1)

Note

Some clinical programs may require MTH 141. Check the individual clinical programs for current requirements.

Specialization in histotechnology

Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. During the clinical internship, students learn histological techniques that involve processing, sectioning and staining of tissue specimens that have been removed from humans or animals by biopsy, surgical procedures or autopsy. Advanced techniques include muscle enzyme histochemistry, electron microscopy, immunofluorescence and immunoenzyme procedures, molecular pathology techniques including in situ hybridization and image analysis, and medical photography. Techniques in education methodology, management, research, technical writing and presentation of scientific information are also included in the curriculum.

Students may apply for specialization standing in histotechnology after completing the BDTS core curriculum. Application to the hospital-based internship is typically made during the winter semester of the sophomore year. Students will be informed of acceptance in June and begin the internship in August of the next calendar year. Application for specialization standing and internship usually coincide for histotechnology.

The junior year consists of the prescribed professional course requirements at Oakland University. The senior year consists of a 12-month internship at the William Beaumont Hospital School of Histotechnology. Acceptance into the internship program is competitive and is based on grade point average, personal interview and letters of recommendation.

Histotechnology specialization professional course requirements

Students in the histotechnology specialization must complete the following courses

- BIO 305 - Histology (4)
- BIO 306 - Histology Laboratory (1)
- HS 401 - Human Pathology (4)
- MLS 312 - Hematology/Cellular Pathophysiology (3)
- MLS 335 - Clinical Parasitology/Mycology/Virology (3)
- MLS 336 - Clinical Parasitology/Mycology/Virology Laboratory (1)
- MLS 400 - Medical Genetics (4)
- MLS 402 - Molecular Diagnostics (3)
- MLS 423 - Medical Immunology (3)
- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- HT 401 - Basic Histotechnique and Histochemical Staining Methods (12)
- HT 402 - Basic Electron Microscopy (3)
- HT 403 - Immunohisto-Cytochemistry (5)
- HT 404 - Special Techniques (4)

And ten elective credits from the following courses:

- PSY 225 Introduction to Life-Span Developmental Psychology (4)
- HS 201 Health in Personal and Occupational Environments (4)
- HS 205 Human Nutrition and Health (4)
- MTH 141 Precalculus (4)
- MTH 154 Calculus I (4)
- PHY 108 Principles of Physics I (4)
- PHY 109 Principles of Physics II (4) or
- BIO 113 Biology II (4))

Specialization in nuclear medicine technology

Nuclear medicine technologists utilize small amounts of radioactive materials for diagnosis, therapy and research. Diagnosis can involve organ imaging using gamma counters to detect radioactive material administered to the patient or analysis of biologic specimens to detect levels of various substances. Therapeutic doses of radioactive materials are also given to patients to treat specific diseases.

Students may apply for specialization standing in nuclear medicine technology after completion of the BDTS core curriculum. Application for BDTS specialization standing occurs at the end of the sophomore year. Application for the clinical internship is made during the junior year as the student approaches completion of the prescribed professional course requirements. The senior year consists of a 12-14 month affiliation at an approved school of nuclear medicine technology. Currently Oakland University BDTS students may apply to the following accredited Schools of Nuclear Medicine Technology: William Beaumont Hospital, Royal Oak, Michigan, and the Nuclear Medicine Institute, Findlay, Ohio. The application process for each school is different and students should consult

their adviser. **Acceptance into the internship program is competitive and based on grade point average, personal interview and letters of recommendation.**

Nuclear medicine technology specialization professional course requirements

Students in the nuclear medicine technology specialization must complete the following courses:

- MTH 141 - Precalculus (4)
- PHY 101 - General Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) and PHY 111 - General Physics Lab II (1)
- HS 401 - Human Pathology (4)
- MLS 312 - Hematology/Cellular Pathophysiology (3)
- MLS 400 - Medical Genetics (4)
- MLS 423 - Medical Immunology (3)
- MLS 425 - Medical Biochemistry (4)
- NMT 401 - Clinical Internship I (12)
- NMT 402 - Clinical Internship II (12)
- NMT 403 - Clinical Internship III (8)

And four elective credits from the following courses

- HS 201 Health in Personal and Occupational Environments (4)
- HS 205 Human Nutrition and Health (4)
- PSY 225 Introduction to Life-Span Developmental Psychology (4)

In addition to the NMT specialization requirements, the Nuclear Medicine Institute, Findlay, OH program requires

- CSE 110 - Computer Literacy (2)
- A speech/oral communications class

Specialization in radiologic technology

A radiologic (X-ray) technologist is a professional responsible for the administration of ionizing radiation for diagnostic or research purposes. The radiologic technologist must integrate complex knowledge and advanced technical skills in the imaging of internal structures. Radiologic technologists apply knowledge of anatomy, physiology, positioning and radiographic technique in the performance of their duties.

Individuals interested in a radiography career must be able to communicate effectively with patients and other health care professionals. The radiologic technologist must display compassion, competence and concern in order to meet the special needs of the patient. Direct contact is required when maneuvering the patient into position for various procedures. Radiography is a rewarding career that combines patient care with modern medical technology.

Students may apply for admission into the Radiologic Technology specialization after completing the BDTS core curriculum requirements. Radiologic Technology is currently the only BDTS specialization for which Oakland University holds the programmatic accreditation. The admission process occurs during winter semester prior to the August start date of each year. **Acceptance into the program is competitive and is based on grade point average, personal interview and letters of recommendation.** Applicants are required to have a minimum grade of 3.0 cumulative total GPA and science GPA, and current CPR ("Healthcare Provider") certification through the American Heart Association. Patient contact experience, volunteering with patients and advanced course work are considered favorably in the admissions process. The junior and senior years consist of didactic work at Oakland University and supervised clinical experience in the Radiologic Technology Department at William Beaumont Hospital.

Radiologic technology specialization professional course requirements

Students in the radiologic technology specialization must complete the following courses:

- PHY 108 - Principles of Physics I (4)
- PHY 109 - Principles of Physics II (4)
- RAD 311 - Methods of Patient Care I (2)
- RAD 331 - Radiologic Physics I (3)
- RAD 333 - Principles of Radiographic Exposure I (3)
- RAD 334 - Principles of Radiographic Exposure II (2)
- RAD 341 - Radiographic Procedures I (4)
- RAD 342 - Radiographic Procedures II (2)
- RAD 343 - Radiographic Procedures III (2)
- RAD 345 - Radiographic Image Evaluation I (2)
- RAD 404 - Quality Assurance and Imaging (3)
- RAD 407 - Radiation Biology and Protection (2)
- RAD 411 - Methods of Patient Care II (1)
- RAD 431 - Radiologic Physics II (3)
- RAD 433 - Principles of Radiographic Exposure III (2)
- RAD 434 - Principles of Radiographic Exposure IV (3)
- RAD 441 - Radiographic Procedures IV (3)
- RAD 442 - Radiographic Procedures V (3)
- RAD 445 - Radiographic Image Evaluation II (1)
- RAD 450 - Senior Seminar (2)
- RAD 451 - Clinical Practicum I (3)
- RAD 452 - Clinical Practicum II (3)
- RAD 453 - Clinical Practicum III (3)
- RAD 454 - Clinical Practicum IV (3)
- RAD 455 - Clinical Practicum V (3)
- RAD 456 - Clinical Practicum VI (3)

Preprofessional studies for medicine, dentistry, physician assistant, optometry, and veterinary medicine

The Bachelor of Science degree in Biomedical Diagnostic and Therapeutic Sciences provides excellent preparation for admission to a variety of professional schools. The curricula for some BDTS specializations may require additional courses, depending on the individual professional program requirements. For a student desiring greater flexibility in planning their academic program, the Pre-Professional concentration may be of interest. Students should consult with the BDTS adviser as to the academic option most suitable for the individual student's academic career goals.

Pre-Professional Concentration course requirements

Students in the Pre-Professional Concentration must complete the following courses:

- PHY 101 - General Physics I (4) and PHY 110 - General Physics Lab I (1)
- PHY 102 - General Physics II (4) and PHY 111 - General Physics Lab II (1)
- CHM 234 - Organic Chemistry I (4)
- CHM 235 - Organic Chemistry II (4)
- CHM 237 - Organic Chemistry Laboratory (2)
- MLS 312 - Hematology/Cellular Pathophysiology (3) or MLS 416 - Medical Hematology (4)
- MLS 400 - Medical Genetics (4)
- MLS 423 - Medical Immunology (3)

- MLS 425 - Medical Biochemistry (4)
- MLS 430 - Clinical Microbiology (4)
- MLS 431 - Clinical Microbiology Laboratory (1) or MLS 432 - Medical Microbiology Laboratory (1)

Electives (20-21 credits) from the following courses-

- MTH 141 Precalculus (4)
- MTH 154 Calculus I (4)
- PSY 225 Introduction to Life-Span Developmental Psychology (4)
- HS 205 Human Nutrition and Health (4)
- HS 310 Nutrition and Lifecycles (4)
- HS 401 Human Pathology (4)
- EXS 304 Exercise Physiology (3)
- EXS 306 Exercise Physiology Laboratory (1)
- BIO 321 Medical Physiology (4)
- SW 310 Human Behavior and Social Environment l (4)/ SW 311 Human Behavior and Social Environment ll (4)

or additional electives as approved.

Environmental Health and Safety Program

Department Website: oakland.edu/shs/environmental-health-and-safety/undergraduate-study/

Director: *Charles W. McGlothlin, Jr.*

Assistant professor: *Richard O. Olawoyin*

Special instructor: *Charles W. McGlothlin, Jr.*

Full-time adjunct instructor: *Patrick R. Frazee*

Adjunct assistant professor: *Thomas W. Schenk, Darryl C. Hill*

Adjunct instructors: *David N. Andrews, Malcom E. Dunbar*

Environmental Health and Safety is a specified branch of the health engineering professions, focusing on the environmental protection and occupational safety. Protecting America's workers, the environment and the general public from injury and illness in today's age of technological advancement has become one of the most challenging and rewarding professions available. Environmental Health and Safety professionals strive to identify, evaluate and eliminate or control hazards which expose people, property or the environment to danger or harm. The EHS profession applies fundamental exposure assessment techniques (both qualitative and quantitative) for environmental health protection, particularly; the physiological and/or toxicological interactions of physical, chemical, biological, mechanical, electrical and ergonomic agents, factors, and/or stressors with the human body. EHS also aims to prevent occupational injuries, diseases or illnesses that may occur in the work environment. In addition, the EHS professional is involved in the prevention of accidents that could cause property or environmental damages.

The Environmental Health and Safety (EHS) program is multi-disciplinary in nature, providing students with relevant exposure to basic sciences and behavioral science subjects as well as a thorough introduction to environmental health, occupational safety and industrial hygiene concepts. A one-semester internship in the senior year of the program provides students with first-hand field experience in the practice of environmental health and safety. Internship placements are coordinated by the program director and include manufacturing,

insurance, health care, energy and engineering, construction, service, consulting, labor, and government organizations.

Graduates of the program will find employment opportunities in a wide variety of occupations, including: health care facilities; industrial firms; petrochemical and energy; construction companies; insurance companies; professional associations; local, state, and federal government; and labor organizations. Oakland University's proximity to many of the national's leading industrial companies provides a wealth of experiential learning opportunities throughout the EHS curriculum, particularly for the internship placements. These world class companies also offer employment opportunities to the EHS graduate.

Program Educational Objectives

The Environmental Health and Safety program contributes to the institution's mission by offering a high-quality baccalaureate degree that meets and exceeds the educational outcomes-based criteria established by the American Society of Safety Engineers for a B.S. degree in a safety-related career field. The educational objectives of the Environmental Health and Safety program are to prepare graduates to become effective safety and health professionals. During their first five years after graduation, graduates will demonstrate their ability to:

1. anticipate, identify, evaluate, and control potentially hazardous agents, conditions and practices;
2. develop effective safe operating procedures and comprehensive environmental health and safety programs to address identified hazards, conditions, and practices in a cost effective manner;
3. support employees and managers in developing a positive organizational safety culture;
4. work effectively with labor and management in an effort to address safety and health issues in the workplace;
5. measure and evaluate environmental health and safety performance;
6. conduct themselves in a professional and ethical manner, and
7. pursue life-long learning, including formal training and educational opportunities, to stay both current and proficient in the practice of safety sciences and in the business skills necessary to make the business case for needed safety and health interventions in a changing global economy.

Student Outcomes

Baccalaureate degree students graduating from the Environmental Health and Safety program at Oakland University will demonstrate the ability to:

1. enter the environmental health and safety profession as a generalist with the skills necessary for success;
2. use the techniques, skills, and modern scientific and technical tools necessary for professional practice;
3. be proficient in written composition and oral communications;
4. apply knowledge of mathematics and science to analyze and interpret data necessary to resolve safety and health related issues;
5. anticipate, identify, and evaluate workplace hazardous conditions and practices;
6. formulate hazard control designs, methods, procedures, and programs for environmental pollutions fundamentals and control technologies;
7. function effectively on multi-disciplinary teams;
8. recognize the impact of solutions within a global and societal context;
9. understand ethical and professional responsibility;
10. successfully pursue graduate study in environmental health and safety; and
11. appreciate the need to continue professional development through graduate study, professional certification, and through becoming life-long learners.

Grade Point Policy

Environmental Health and Safety majors must achieve minimum course grades of 2.0 in all math and science courses. Environmental Health and Safety majors and minors must achieve minimum course grades of 2.5

in all required EHS courses. A final course grade below the required minimum places a student on probation, which requires a meeting with the program director or a designated representative to discuss a method of remediation. In most cases, the method of remediation involves repeating the course in which the unsatisfactory grade was earned. See repeating courses for additional information.
Requirements for the B.S. degree with a major in Environmental Health and Safety

Students seeking the Bachelor of Science degree with a major in Environmental Health and Safety must complete a minimum of 125 credits, including the following requirements:

1. Meet the university general education requirements

(see Undergraduate degree requirements). Note that several courses under requirement number three below satisfy general education requirements and Environmental Health and Safety degree requirements. See courses marked with "*".

2. Complete the university U.S. diversity requirement

For Environmental Health and Safety majors, this requirement is satisfied by completing HS 302 Community and Public Health (4) or any other course under the diversity category.

3. Complete the Environmental Health and Safety required courses

- BIO 104 - Human Biology (4) or BIO 111 - Biology I (4)
- CHM 104 - Introduction to Chemical Principles (4)
- CHM 201 - Introduction to Organic and Biological Chemistry (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4) *
- PHY 120 - The Physics of Everyday Life (4) * or PHY 101 - General Physics I (4) *
- HS 201 - Health in Personal and Occupational Environments (4) *
- PSY 100 - Introduction to Psychology (4) *
- MGT 110 - Contemporary World Business (4) *
- WRT 382 - Business Writing (4)

4. Elective credits

Minimum 10 credits

- AHS 335 - Health Care Safety (4)
- AHS 345 - Hospital Safety and Health (4)
- EHS 342 - Advanced Quantitative Methods for Environmental Health and Safety (4)
- EHS 351 - Noise Control and Measurement (2)
- EHS 423 - Radiation Safety (3)
- EHS 434 - Ventilation and Emerging Technologies (4)
- EHS 435 - Radiation Exposure Control (2)
- ENV 354 - Global Environmental Governance (4) or PS 354 - Global Environmental Governance(4)
- HRD 306 - Introduction to Human Resource Development (4)
- HRD 307 - Presentation and Facilitation (4)
- HRD 310 - Instructional Design (4)
- HRD 320 - Introduction to Labor and Employment Relations (4)
- HRD 321 - Introduction to Public Sector Labor and Employment Relations (4)
- HRD 322 - The Study of Labor and Work Organizations (4)
- HRD 328 - Civil Rights and Regulations in Employment (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- HRD 423 - Instructional Methods (4)
- MGT 300 - Survey of Management (3)
- PHL 103 - Introduction to Ethics (4)

- POM 300 - Survey of Operations Management (3)
- WRT 150 - Composition I (4)

or any other course approved by the program director in writing through the approved petition of exception form

5. Complete the major courses

- EHS 100 - Introduction to Environmental Health and Safety (1) or EHS 115 Environmental Health and Safety at Work (2)
- EHS 141 - Quantitative Methods for Environmental Health and Safety (4) *
- EHS 225 - Environmental Health and Safety Training Methods (3)
- EHS 235 - Occupational Safety and Health Standards (3)
- EHS 245 - Professional Practice and Leadership Development (3)
- EHS 330 - Safety and Health Administration and Programs (3)
- EHS 331 - Environmental Health and Safety Engineering and Technology (3)
- EHS 333 - Fire Prevention and Protection (3)
- EHS 334 - Applied Occupational Hygiene (3)
- EHS 335 - Fundamentals of Occupational Hygiene (3)
- EHS 336 - Applied Occupational Hygiene Laboratory (1)
- EHS 441 - Accident/Incident Investigation and Analysis (3)
- EHS 442 - Construction Safety (3)
- EHS 443 - Robotic and Automation System Safety Analysis (3)
- EHS 444 - Environmental Standards (3)
- EHS 445 - Introduction to Ergonomics (3)
- EHS 446 - Industrial and Environmental Toxicology (3)
- EHS 450 - Medical Geology (Geo-Medicine) (4)
- EHS 498 - Environmental Health and Safety Research (3)
- EHS 499 - Environmental Health and Safety Capstone Course Internship (4) (may only be taken with permission of the EHS program director)

Bachelor of Science in Environmental Health and Safety completion sequence for Certified Safety Professionals

The School of Health Sciences offers the Certified Safety Professional (CSP) an opportunity to earn a Bachelor of Science in Environmental Health and Safety (EHS) through a CSP to BS EHS completion program. The student outcomes and educational objectives established for the BS EHS program are the same for traditional and CSP students, including course objectives and teaching methodologies.

Students who have satisfactorily completed a regionally accredited associate or baccalaureate degree and who possess a valid, current CSP certification may apply for admission to the CSP to BS EHS degree completion program. A cumulative GPA of 2.50 or better is required for admission to the CSP to BS EHS degree completion sequence.

Certified safety professionals with a GPA below 2.50 may be admitted to the University under pre-CSP EHS status and change to CSP BS EHS status upon completion of a minimum of 12 credits (applicable to the EHS program) at Oakland University with a GPA of 2.50 or higher.

Certified safety professionals must complete all credits and/or courses required in the BS EHS degree program. Completion may be achieved in the following manner:

1. Graduates from a regionally accredited associate or bachelor degree program

May transfer a maximum of 62 credits from community colleges that apply to the BS EHS degree program requirements. In addition, 22 Environmental Health and Safety credits will be granted through a course competency process. This process includes:

1. Successful completion of the CSP examination
2. Evidence of a valid, current CSP certification
3. Registration for competency credits as per the OU Undergraduate Catalog
4. Registration for approved competency credit courses to include EHS 100, EHS 225, EHS 235, EHS 330, EHS 331, EHS 441, and EHS 442

2. Students seeking a Bachelor of Science degree with a major in Environmental Health and Safety

Must complete a minimum of 125 credits as outlined in the official Oakland University catalog. The minimum required courses may be satisfied through a combination of credits delivered by Oakland University, transfer credits from regionally accredited institutions of higher education, and CSP competency credits. A minimum of 32 credits must be upper division credits from Oakland University.

Environmental Health and Safety Minor

A minor in Environmental Health and Safety is available to complement other majors in the School of Health Sciences and in other programs, such as human resource development, engineering, biology or chemistry. A minimum of 26 credit hours is required for a minor in Environmental Health and Safety.

Courses required for the minor include

- EHS 100 - Introduction to Environmental Health and Safety (1)
- EHS 141 - Quantitative Methods for Environmental Health and Safety (4)
- EHS 225 - Environmental Health and Safety Training Methods (3)
- EHS 235 - Occupational Safety and Health Standards (3)
- EHS 330 - Safety and Health Administration and Programs (3)
- EHS 331 - Environmental Health and Safety Engineering and Technology (3)
- EHS 335 - Fundamentals of Occupational Hygiene (3)
- EHS 441 - Accident/Incident Investigation and Analysis (3)
- EHS 444 - Environmental Standards (3)

Internship

An internship is recommended to enhance job placement. The internship may be taken on a for credit or not for credit basis. If taken for credit, the student must register for EHS 499 Environmental Health and Safety Capstone Course Internship (4).

Grade point policy

Environmental Health and Safety minors must achieve minimum course grades of 2.5 in all required EHS courses. A final course grade below 2.5 places a student on probation, which requires a meeting with the program director or a designated representative to discuss a method of remediation. In most cases, the method of remediation involves repeating the course in which the unsatisfactory grade was earned. See repeating courses for additional information.

Physical Therapy Program

Department Website: oakland.edu/shs/physical-therapy/pt/
(See requirements for the Health Sciences, B.S. with a pre-physical therapy concentration)

Director: *Kristine A. Thompson*

Associate professors: *R. Elizabeth Black, Douglas S. Creighton, Jacqueline S. Drouin, Melodie D. Kondratek, John R. Krauss*

Assistant professors: *Sara Arena, Deborah J. Doherty, Christopher Wilson*

Special instructors: *Susan E. Saliga, Christine Stiller, Kristine A. Thompson*

Adjunct Assistant Professor: *Sheri Brown*

Consulting professors: *Olaf I. Evjenth*

Clinical professor: *Beth C. Marcoux*

Clinical assistant professors: *Cathy A. Larson, Frederick D. Pociask,*

Senior clinical instructors: *Robert S. Burns, Jamie Janes, David A. Tomsich*

Clinical instructors: *Kathleen Jakubiak Kovacek, Peter R. Kovacek, Janet Siedel, Angela C. Strong, Michael Vito*

See Requirements for the B.S. degree with a major in health sciences and pre-physical therapy academic concentration. The pre-physical therapy focus is designed to prepare students for the traditional application requirements for the Oakland University Doctor of Physical Therapy (DPT).

The program offers selected courses from this catalog as warranted by student needs and availability of faculty.

- PT 302 - Physical Therapy as a Profession
- PT 490 - Directed Study
- PT 421 - Basic Athletic Training

Wellness, Health Promotion and Injury Prevention Program

Department Website: oakland.edu/shs/whp/

Program Director: *To be determined*

Associate professors: *Florence J. Dallo, Stafford C. Rorke*

Special Instructor: *Elise Brown*

Clinical instructors: *Mary Anne Mikus, Terry L. Dibble, Teri E. Kolar, Charles Rinehart, Lucille Sternburgh*

The rigorous wellness, health promotion, and injury prevention (WHP) program is accredited by the National Wellness Institute (NWI). Wellness, health promotion, and injury prevention graduates achieving an overall GPA of 2.75 may register as certified wellness practitioners (CWP) with the NWI. The primary goal of the WHP program is to prepare students for entry to graduate programs of study in fields such as exercise science, health education, human resources, injury prevention, psychology, nutrition, public health, and related professional and medical fields such as a second degree in nursing, physician assistant, or medicine. Therefore, a parallel secondary function of the WHP program is to prepare students for entry-level employment in a variety of allied health, commercial, industrial, government, hospital, community and non-profit organizations. Professional skills of graduates are utilized in health enhancement, disease prevention, injury prevention, health education/promotion, health and fitness, corporate and work-site wellness, as well as human resource practice and management.

The curriculum is designed to provide students with a broad-based introduction to this emerging multi-disciplinary field of study, but in addition, provides a specialization within one of eight focus areas: additional major in psychology; general health enhancement; intervention strategies in health promotion; complementary medicine; injury prevention; exercise science; nutrition and health; and a pre-professional option. The major in wellness, health promotion and injury prevention can be completed within 128 credit hours. However, students taking the preprofessional focus should note that additional credit hours may be required in the biological sciences in order to satisfy entry requirements for most medical and related schools.

It is possible for students majoring in wellness, health promotion and injury prevention to take a minor in anthropology, exercise science, human resource development training and development, marketing, nutrition and health, psychology, sociology, or other minors, depending on the focus area chosen.

Grade Point Policy

To graduate with the WHP major a student must attain a grade of 2.50 in all School of Health Sciences coursework applied to the core curriculum of the major (School of Health Sciences coursework includes courses in EHS, EXS, HS, MLS, and WHP). The 2.50 grade requirement does not apply to courses in the WHP focus or to courses taken outside of the School of Health Sciences. However, selected other schools also have grade requirements e.g. psychology requires a 2.0 and human resource development also has grade requirements. In addition, admission to selected core WHP courses requires that designated prerequisite courses be obtained with a 2.50. A student completing a required course with a grade below 2.50, or whose cumulative grade point average in School of Health Sciences courses falls below 2.50, will automatically be considered to be on probation in the program. A subsequent course grade below 2.50 will necessitate repeating of the course; or a change of major, a decision made in the best interest of the student following consultation with the WHP Program Director or designated representative. Before repeating any course, students must consult with the WHP Program Director. WHP majors should remember that in order to register as Certified Wellness Practitioners (CWP) with the National Wellness Institute, a cumulative GPA of 2.75 for the overall degree is required. Additional rules governing grade point averages are outlined in the WHP Student Handbook, available on the WHP website.

Code of Ethics

Ethical conduct is critical to a health profession. Therefore, WHP students are required to abide by the Code of Conduct established by the American College of Sports Medicine. Violations will be reviewed by the faculty and could result in dismissal from the program. Students are expected to maintain healthy lifestyle choices and fulfill the ethical expectation to be a good role model in the health promotion field.

Admission to the major in wellness, health promotion and Injury prevention: Pre-WHP standing

WHP students are expected to epitomize a complete wellness lifestyle. The degree is not recommended for individuals who cannot fulfill the ethical expectations to be a good role model in the health promotion field. Students interested in the WHP major must first declare standing as Pre-WHP majors. To complete the Pre-WHP requirements for admission to the WHP major students must first:

1. Complete all required general education courses with an overall GPA of 2.50 as follows: HS 201, HS 302, Western Civilization (PHL 103, MGT 235, or AN 300) , PSY 100, Global Perspective (MGT 110, AN 102, or AN 200), STA 225, WRT 160, plus the general education courses in Arts, Language, Literature and Knowledge Applications. (AN 331 or SOC 331, LIB 250, PSY 225, ENV 354, HRD 307, HRD 351, NRS 304, WGS 300)
2. Complete EXS 204, EXS 215, HS 201, HS 302, and WHP 350 each with a minimum grade of 2.5, and PSY 250 with a minimum grade of 2.0.

Requirements for the B.S. degree with a major in wellness, health promotion, and injury prevention

Students seeking the Bachelor of Science degree in Wellness, Health Promotion, and Injury Prevention must complete 128 credits, including the following requirements:

1. Meet the university general education requirements

(See Undergraduate degree requirements). Note that several courses under requirement number four satisfy both general education requirements, and wellness, health promotion, and injury prevention degree requirements. See courses marked with an "*".

2. Complete the university U.S. diversity requirement.

For majors in wellness, health promotion, and injury prevention, this requirement is satisfied by completing the core curriculum course, HS 302.

3. Complete the wellness, health promotion, and injury prevention core curriculum credits

- EXS 103 - Exercise (Strength Training) and Health Enhancement (2)
- EXS 207 - Safety and First Aid in Exercise Settings (2)
- HRD 310 - Instructional Design (4)
- PSY 345 - Health Psychology (4) (formerly PSY 338)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4) (Satisfies writing intensive course in the major)
- WHP 311 - Community Emergency Response Team (CERT) Preparedness (2)
- WHP 360 - Wellness Facilitation (4)
- WHP 380 - Persuasion and Marketing in Health Promotion (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 401 - Internship in Wellness, Health Promotion and Injury Prevention (4) (Satisfies Capstone course requirement)
- WHP 403 - Laboratory in Assessment and Interventions (4)
- WHP 460 - Evaluation of Health and Wellness Programs (4)
- WHP 402 - Senior Culminating Experience (4) or WHP 405 - Special Topics (4) or WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (4) or WHP 420 - Injury Prevention and the Environment (4) or WHP 431 - Crisis Intervention and Prevention of Self Harm (4) or WHP 440 Mindfulness of Wellbeing (4) or another pre-approved 400-level WHP course

4. Complete courses that complement the core curriculum, as follows

- MGT 110 - Contemporary World Business (4) * or AN 102 - Culture and Human Nature (4)* or AN 200 - Global Human Systems (4)*
- EXS 103 - Exercise (Strength Training) and Health Enhancement (2)
- EXS 204 - Weight Control, Nutrition and Exercise (4)
- EXS 215 - Stress Management (2)
- HS 201 - Health in Personal and Occupational Environments (4) *
- HS 302 - Community and Public Health (4) *
- PHL 103 - Introduction to Ethics (4) * or MGT 235 - Commerce in Western Civilization (3) * or AN 300 - Culture, Society and Technology (4)*
- PSY 100 - Introduction to Psychology (4)
- PSY 250 - Research Design in Psychology (4)
- STA 225 - Introduction to Statistical Concepts and Reasoning (4) *
- WHP 350 - Health Program Implementation (4)

Notes (*Courses that also satisfy the university general education requirement)

The WHP program enforces both prerequisites and course sequencing. Students must follow the curriculum checklist available on the WHP website.

5. Complete the required credit hours of program elective work for one of the chosen focus specialization areas below

a. Additional major in psychology focus

Students intending to earn a psychology major must consult with a Department of Psychology faculty adviser and complete the required 44 credits for the psychology major as detailed below. Note that 4 credits of psychology can be satisfied with PSY 225 as the general education knowledge applications course (see Pre-WHP above); and 12 additional credits of psychology courses are satisfied in the WHP core curriculum, (See requirement number four above). Therefore, in this focus students must complete a minimum of an additional 28 credit hours of psychology. Students must declare the additional major in psychology by completing an additional major form, and must attain a minimum GPA of 2.00 in all psychology courses.

Required courses

- PSY 100 - Introduction to Psychology (4) (credited in WHP core)
- PSY 250 - Research Design in Psychology (4) (credited in WHP core)
- PSY 251 - Statistics in Psychology (4)
  Each course must be completed with a minimum grade of 2.0.

Plus 4 credits from

- PSY 215 - Introduction to Biological and Cognitive Psychology (4)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4) (credited in WHP core)
  (May be used as a knowledge applications course outside the WHP major)
- PSY 235 - Introduction to Social Psychology (4)
- PSY 236 - Introduction to Individual Differences and Personality Psychology (4) (formerly PSY 245)
- PSY 240 - Introduction to Positive Psychology (4)
- PSY 241 - Introduction to Clinical Psychology (4)

Plus one course from each of four of the following five groups (16 credits)

Evolutionary and Comparative

- PSY 301 - The Psychology of Human Sexuality (4)

- PSY 302 - Evolution, Science, and Superstition (4) (formerly PSY 315)
- PSY 303 - Evolutionary Psychology (4)
- PSY 304 - Animal Behavior (4) (formerly PSY 319)

Cognition, Perception, and Biological Psychology

- PSY 310 - Creativity and Innovation (4)
- PSY 311 - Sensation and Perception (4)
- PSY 312 - Psycholinguistics (4) (formerly PSY 370)
- PSY 316 - Cognitive Psychology (4)
- PSY 318 - Biological Psychology (4)
- PSY 415 - Seminar in Cognition, Perception, and Biological Psychology (4)
- PSY 416 - Seminar: Psychopharmacology (4)

Developmental

- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children (4)
- PSY 423 - Seminar: Resilient Aging (4)
- PSY 424 - Seminar: Moral Development (4)
- PSY 425 - Seminar in Developmental Psychology (4)

Social Personality

- PSY 330 - Social Cognition (4)
- PSY 333 - Motivation (4)
- PSY 334 - Industrial and Organizational Psychology (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 435 - Seminar in Social Psychology (4)
- PSY 436 - Seminar in Individual Differences and Personality Psychology (4) (formerly PSY 445)

Behavioral Health

- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4) (formerly PSY 338)
- PSY 346 - Psychology of Gender (4)
- PSY 399 - Field Experience in Psychology (4)

Plus one capstone course at 400-level (4 credits)

Note: May not count as 400-level elective or as part of one of the groups above.

Plus 8 elective credit hours in psychology at 300-level or 400-level

Note: Electives must be in addition to courses used to satisfy four of the five groups above.

b. General health promotion focus

- PSY 225 - Introduction to Life-Span Developmental Psychology (4)
- (use as Knowledge Applications course outside the WHP major)

Plus a minimum of 4 hours from

- PSY 215 - Introduction to Biological and Cognitive Psychology (4)
- PSY 235 - Introduction to Social Psychology (4)
- PSY 236 - Introduction to Individual Differences and Personality Psychology (4) (formerly PSY 245)
- PSY 240 - Introduction to Positive Psychology (4)
- PSY 241 - Introduction to Clinical Psychology (4)

Plus 4 hours from one of the following groups

Evolutionary and Comparative

- PSY 301 - The Psychology of Human Sexuality (4)
- PSY 302 - Evolution, Science, and Superstition (4) (formerly PSY 315)
- PSY 303 - Evolutionary Psychology (4)
- PSY 304 - Animal Behavior (4) (formerly PSY 319)

Cognition, Perception, and Biological Psychology

- PSY 310 - Creativity and Innovation (4)
- PSY 311 - Sensation and Perception (4)
- PSY 312 - Psycholinguistics (4) (formerly PSY 370)
- PSY 316 - Cognitive Psychology (4)
- PSY 318 - Biological Psychology (4)
- PSY 415 - Seminar in Cognition, Perception, and Biological Psychology (4)
- PSY 416 - Seminar: Psychopharmacology (4)

Developmental

- PSY 321 - Child Development (4)
- PSY 322 - Adolescence and Youth (4)
- PSY 323 - Adulthood and Aging (4)
- PSY 421 - Seminar in Developmental Psychology: Cognitive Development in Children (4)
- PSY 423 - Seminar: Resilient Aging (4)
- PSY 424 - Seminar: Moral Development (4)
- PSY 425 - Seminar in Developmental Psychology (4)

Social Personality

- PSY 330 - Social Cognition (4)
- PSY 333 - Motivation (4)
- PSY 334 - Industrial and Organizational Psychology (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 435 - Seminar in Social Psychology (4)
- PSY 436 - Seminar in Individual Differences and Personality Psychology (4) (formerly PSY 445)

Behavioral Health

- PSY 341 - Adult Psychopathology (4)
- PSY 343 - Child Psychopathology (4)
- PSY 344 - Behavior Analysis (4)
- PSY 345 - Health Psychology (4) (formerly PSY 338)
- PSY 346 - Psychology of Gender (4)
- PSY 399 - Field Experience in Psychology (4)

Plus an additional 16 credit hours with the prior permission of the WHP Program Director from any course offered in the School of Health Sciences

Or any health-related or social science course offered within the College of Arts and Sciences, or from other schools in the university, preferably leading to the attainment of a complementary minor.

c. Complementary medicine and wellness focus

- HS 441 - Integrative Holistic Medicine Principles and Practice (4)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 440 - Mindfulness in Well-Being (4) (cannot also be used as WHP 402 substitute)
- WHP 461 - Modalities for Healing (4)
- WHP 462 - Healing Traditions (4)

Plus an additional 4 elective credit hours from

- AN 310 - Psychological Anthropology (4)
- HRD 351 - Fundamentals of Human Interaction (4)
- PSY 316 - Cognitive Psychology (4)
- PSY 333 - Motivation (4)
- PSY 337 - Group Dynamics (4)
- PSY 339 - Emotion (4)
- PSY 344 - Behavior Analysis (4)
- SOC 328 - Sociology of Health and Medicine (4)
- SOC 337 - Interpersonal Relationships (4)
- SOC 402 - Small Groups (4)

Students may choose a course not on the elective lists if preapproved by the program director as pertinent to the field of complementary medicine and wellness.

d. Health promotion intervention focus

- HRD 306 - Introduction to Human Resource Development (4) *
- HRD 307 - Presentation and Facilitation (4) *
- HRD 402 - Program Evaluation (4) *
- HRD 423 - Instructional Methods (4) *
- HRD 472 - E-learning in Organizations (4) *

plus a minimum of 8 credit hours from

- ACC 200 - Introductory Financial Accounting (4)
- COM 303 - Relational Communication Theory (4)
- COM 304 - Communication in Organizations (4)
- ECN 367 - Economics of Health Care (3)
- HRD 303 - Ethics in Human Resource Development (4)
- HRD 351 - Fundamentals of Human Interaction (4)
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 367 - Cultural Diversity in the Workplace (4)
- HRD 440 - Strategic Planning (4)
- ORG 330 - Introduction to Organizational Behavior (3)
- PS 359 - Public Policy and Health Care (4)

Note: Together with HRD 307 and HRD 310 in the WHP core, courses marked "*" satisfy the HRD minor in training and development.

e. Injury prevention focus

- WHP 208 - Advanced First Aid/CPR Instruction (2)
- WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (1 TO 4) or WHP 405 Special Topics (4) or WHP 493 Directed Study and Research in Wellness, Health Promotion and Injury Prevention (4)
- WHP 420 - Injury Prevention and the Environment (4)
- WHP 431 - Crisis Intervention and Prevention of Self Harm (4)
- WHP 432 - Prevention of Injury and Sudden Death in Sport and Physical Activity (SPA) (2) or other suitable injury prevention course such as EXS 421 Basic Athletic Training (2)
- PSY 344 - Behavior Analysis (4)
  (or any other pre-approved PSY course)

Plus a minimum of 4 elective hours from

- EXS 350 - Human Motion Analysis (4)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 421 - Basic Athletic Training (2)
  Or any other course pre-approved by the program director that have direct application to prevention injury.

f. Exercise science focus

- EXS 105 - Cardiovascular Fitness Training (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)

Prerequisites BIO 205, BIO 207, and BIO 111 or -BIO 113 must be taken.

Plus a minimum of 4 elective hours of WHP or EXS coursework.

g. Pre-health professional study

Students must complete a further 24 credit hours of pre-approved coursework in preparation for entry to a recognized health profession program. Refer to the general elective list found at the end of this section.

Note:
Before designing this focus course of study, pre-health profession students should contact the professional school that they are interested in attending to obtain program admission information and must consult with a SHS adviser or the WHP Program Director for pre-approval of coursework in this focus. This focus is particularly useful for students with transfer courses that are not credited in the WHP curriculum.

h. Nutrition and health focus

- HS 205 - Human Nutrition and Health (4)
- HS 310 - Nutrition and Lifecycles (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 312 - Community Nutrition (4)
- HS 313 - Nutrition and Culture (4)

Plus four credit hours from:

- HS 320 - Nutrition and Physical Activity (2)
- HS 321 - Herbs Supplements Nutrition (2)
- HS 322 - Eating Disorders (2)

- HS 323 - Foodborne Illnesses (2)
- HS 324 - Introduction to Food Science (3)
- HS 325 - Introduction to Food Science Lab (1)
- HS 460 - Nutrient Metabolism (4)

Plus, a minimum of an additional 2 elective credit hours with the prior permission of the WHP Program Director from any health-related course offered in the School of Health Sciences; or any other course pre-approved by the program director.

6. All students declaring wellness, health promotion and injury prevention as their major must undertake a Health Risk Appraisal (satisfied in WHP 403).

7. Preferred electives list

Electives should first be chosen from WHP courses, then EXS courses, then any course on the general elective list below.

- WHP 208 - Advanced First Aid/CPR Instruction (2)
- WHP 315 - Laughter as Therapeutic Modality (4)
- WHP 325 - Issues in Women's Health (4)
- WHP 340 - Contemporary Issues in Personal Health (2)
- WHP 370 - Culture, Ethnicity and Well-being (4)
- WHP 405 - Special Topics (1 TO 4)
- WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (1 TO 4)
- WHP 420 - Injury Prevention and the Environment (4)
- WHP 431 - Crisis Intervention and Prevention of Self Harm (4)
- WHP 461 - Modalities for Healing (4)
- WHP 462 - Healing Traditions (4)
- WHP 493 - Directed Study and Research in Wellness, Health Promotion and Injury Prevention (1 TO 4)
- EXS 105 - Cardiovascular Fitness Training (2)
- EXS 203 - Group Exercise Instruction I (2)
- EXS 205 - Group Exercise Instruction II (2)
- EXS 304 - Exercise Physiology (3)
- EXS 306 - Exercise Physiology Laboratory (1)
- EXS 350 - Human Motion Analysis (4)
- EXS 403 - Human Performance Enhancement (2)
- EXS 405 - Health and Disease (2)
- EXS 411 - Clinical Biomechanics (2)
- EXS 415 - Exercise Endocrinology (2)
- EXS 421 - Basic Athletic Training (2)
- EXS 426 - Exercise Electrocardiography (2)
- EXS 436 - Environment and Human Performance (2)
- EXS 445 - Physical Activity and Aging (2)
- EXS 450 - Children and Exercise (2)
- EXS 470 - Introduction to Personal Training (2)
- EXS 475 - Advanced Personal Training (2)

General elective list:

- AN 331 - Racial and Ethnic Relations (4) or SOC 331 - Racial and Ethnic Relations (4)
- BIO 104 - Human Biology (4)
- BIO 111 - Biology I (4)
- BIO 300 - Biology and Society (4)

- BIO 351 - Neurobiology (4)
- BIO 423 - Immunology (4)
- ENV 308 - Introduction to Environmental Studies (4)
- ENV 354 - Global Environmental Governance (4) *
- ENV 355 - Public and Environmental Health (3)
- ENV 364 - Hazardous Materials Emergency Response (3)
- HRD 304 - Lean Principles and Practices in Organizations (4)
- HRD 306 - Introduction to Human Resource Development (4)
- HRD 307 - Presentation and Facilitation (4) *
- HRD 308 - Principles of Leadership (4)
- HRD 323 - Negotiation for Personal Success (4)
- HRD 351 - Fundamentals of Human Interaction (4) *
- HRD 363 - Group/Team Development and Leadership (4)
- HRD 364 - Career Development (4)
- HRD 372 - Staffing, Performance Evaluation and Interaction within Organizations (4)
- HRD 401 - Change Process and Organizational Analysis (4)
- HS 311 - Contemporary Topics in Nutrition (2)
- HS 401 - Human Pathology (4)
- HS 450 - Law, Values and Health Care (4)
- LIB 250 - Introduction to Library Research and Technology in the Information Age (4) *
- MLS 423 - Medical Immunology (3)
- NRS 304 - Human Sexuality (4) *
- PHY 131 - The Physics of Cancer, Stroke, Heart Disease, and Headache (4)
- PHY 318 - Nuclear Physics Laboratory (2)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4) *

Other Electives

Other elective options in biology, business, anthropology, health sciences, environmental health and safety, psychology, sociology, human resource development, or from the College of Arts and Sciences may be taken with the prior written approval of the program director.

Note that courses cannot be used to satisfy both a focus requirement and a focus elective i.e. double credit.

Wellness, Health Promotion and Injury Prevention Minor

A minor in wellness, health promotion and injury prevention is available to students majoring in other programs such as anthropology, integrative studies, health sciences, human resource development, psychology or sociology. The Code of Ethics below also applies to the minor. WHP students are expected to epitomize a complete wellness lifestyle. Therefore, the WHP minor is not recommended for individuals who cannot fulfill the ethical expectations to be a good role model in the health promotion field.

Each of the following courses required for the minor must be obtained with a minimum grade of 2.5

- EXS 204 - Weight Control, Nutrition and Exercise (4)
- HS 201 - Health in Personal and Occupational Environments (4)
- HS 302 - Community and Public Health (4)
- WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
- WHP 350 - Health Program Implementation (4)
- WHP 400 - Assessment and Interventions in Wellness (4)
- WHP 403 - Laboratory in Assessment and Interventions (4)

Note: A five-semester sequence of prerequisite courses is applied to the minor. However, high-achieving students with GPAs above 3.0 and 3.5 may follow accelerated semester sequence options. For details see the WHP website.

Code of ethics

Since ethical conduct is critical to a health profession, students are required to abide by the Code of Conduct established by the American College of Sports medicine. Violations will be reviewed by the faculty and could result in dismissal from the program. Students are expected to maintain healthy lifestyle choices and fulfill the critical expectation to be a good role model in the health promotion field.

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

APPLIED HEALTH SCIENCES PROGRAM

AHS 304 - Exercise Physiology (3)
Effects of exercise and physical training on the physiological systems of the body, with emphasis on cardio-respiratory systems. Includes muscle contraction mechanisms, circulatory and respiratory adjustment during exercise, and nutrition for physical activity. Equivalent with EXS 304.
Prerequisite(s): BIO 111 and BIO 207.
Corequisite(s): AHS 306.

AHS 306 - Exercise Physiology Laboratory (1)
Laboratory experiences are provided for insight into the dynamics of human movement from research and clinical perspectives. Equivalent with EXS 306.
Prerequisite(s): BIO 111 and BIO 207.
Corequisite(s): AHS 304.

AHS 335 - Health Care Safety (4)
Reviews common safety practices to be used throughout the health care arena (covering both employee and patient safety) including incident reporting, infection control, lifting techniques, error prevention, reporting systems, workforce issues, accountability, laws and regulations and the promotion and implementation of safety programs and practices.
Prerequisite(s): HS 201, 302.

AHS 340 - Delivering Safe Patient Care (4)
Discusses the core principles and best practices of patient safety in both hospital and ambulatory care settings by focusing on error prevention, reporting systems and information technology, workforce issues, training issues, accountability and various laws and regulations.
Prerequisite(s): HS 201, 302.

AHS 345 - Hospital Safety and Health (4)
Concentrates on the principles and practices of safety in the hospital setting by focusing on exposures including tuberculosis, needle-sticks, anesthesia gases, latex allergies, radiation, medical waste, and the controls necessary to prevent injury both to the health care employee and the patient.
Prerequisite(s): HS 201, 302.

AHS 401 - Human Pathology (4)
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 HS 401 and HS 501. Cross-listed with HS 401 and HS 501.
Prerequisite(s): BIO 111 and BIO 207 or BIO 321.

AHS 407 - Ergonomics in the Health Care Industry (3)
This course equips healthcare workers with knowledge and skills to recognize and reduce ergonomic risks that may lead to a musculoskeletal disorder (MSD) in their workplace and to enhance their understanding of and communication with patients that may be receiving treatment for MSDs at their facility.
Prerequisite(s): HS 201 and HS 302 and BIO 205 and BIO 207.

AHS 408 - Risk Reduction & Safety Culture Improvement in Healthcare (2)
This course explores the factors critical for a positive workplace safety culture including supporting behaviors of site leadership personnel and safety behaviors of employees. Students will apply contemporary problem solving strategies to reduce risks for blood borne pathogens, slips and falls, patient handling, and other injuries and illnesses of healthcare workers.
Prerequisite(s): HS 201 and HS 302.

AHS 431 – Pharmacology (2)
An introduction to the principles of pharmacology, including the principles of drug therapy and the actions of the basic classes of drugs. Will satisfy requirements for NRS 230. Identical with HS 431. Replaces HS 331 and AHS 331.
Prerequisite(s): BIO 207 or BIO 321.

AHS 450 - Law, Values and Health Care (4)
Examination of legal concepts, problems, institutions that shape/control professional responsibility, problems associated with maintaining and terminating life, licensure and related questions in organization and delivery of health services. Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisites for writing intensive completion of the university writing foundation requirement. Identical with HS 450 and MLS 450.
Prerequisite(s): WRT 160 and senior standing.

CYTOTECHNOLOGY

CT 401 - Clinical Internship (12)
Microscopic study of cellular alterations indicative of cancer and precancerous lesions, infections and benign conditions in the female genital tract; introduction to cytopreparatory techniques.
Prerequisite: Cytotechnology specialization standing.

CT 402 - Clinical Internship (12)
Continuation of CT 401; microscopic study of non-gynecologic samples and fine needle aspirations; laboratory rotations; research project.
Prerequisite: Cytotechnology specialization standing.

EXERCISE SCIENCE

EXS 101 - Exs(Jogging) & Hlth Enhance (2)
Jogging

EXS 102 - Exs(Swimming) & Hlth Enhance (2)
Swimming

EXS 103 - Exercise (Strength Training) and Health Enhancement (2)
Examination of lifestyle factors related to disease prevention and improved quality of life. Combines regular strength training exercise and health enhancement lectures. Offered all semesters.

EXS 104 - Exs(Aerobics) & Hlth Enhance (2)
Aerobics

EXS 105 - Cardiovascular Fitness Training (2)
Examination of lifestyle factors related to disease prevention and improved quality of life. Combines exposure to walking-jogging exercise, aerobics exercise, standard cardiovascular training equipment, swimming exercise and health enhancement lectures. Offered all semesters.

EXS 106 - Exercise (Judo) and Health Enhancement (2)
Impact of judo exercise on fitness, weight management, and general wellness. Emphasis on how the body, particularly cardiovascular systems and muscles, responds to judo training, and learning simple biomechanics of the sport. Recommended for students wishing to learn judo and understand exercise science principles in a practical, real life setting.

EXS 202 - Introduction to Exercise Science (2)
Introduction to the basic concepts from different areas of exercise science (e.g. motor learning, exercise physiology, biomechanics). Offered summer semester.

EXS 203 - Group Exercise Instruction I (2)
Theory and practice of safe and effective exercise instruction for individual and group resistance training programs. Excellent preparation for personal training. Focus on program design, practical skills of exercise instruction, progression, effective communication, facilities and equipment, legal issues, and risk management. Summer semester
Prerequisite(s): EXS 103 or instructor permission.

EXS 204 - Weight Control, Nutrition and Exercise (4)
Exploration of the role of exercise and optimal nutrition in weight control/loss. Emphasis on effective eating, energy balance, physiology of weight loss, behavior modification and health risks of obesity. Includes practical laboratory experiences. Recommended for students wishing to develop successful weight loss/control skills and improved nutritional habits. Fall, winter and summer semesters.

EXS 205 - Group Exercise Instruction II (2)
Theory and practice of safe and effective exercise instruction for group aerobic exercise training programs. Focus on training class styles and formats, practical skills of exercise instruction, progression, cueing, pattern building, choreography, and learning styles including visual, kinesthetic and auditory. Land-and water-based programs. Summer semester.
Prerequisite(s): EXS 105, EXS 203 or instructor permission.

EXS 207 - Safety and First Aid in Exercise Settings (2)
Learn how to recognize emergencies, make first aid decisions, and provide immediate, temporary care of accident or sudden illness victims. Healthy living in injury/illness prevention. Use of an Automatic External Defibrillator Basic Life Support (BLS) for the Healthcare Provider (American Heart Association) Certification and First Aid Certification upon successful completion.

EXS 215 - Stress Management (2)
Students will learn concepts and skills to enable them to manage stress effectively. This course is experiential and interactive. The course presents materials on exercise, time management, meditation, mindfulness, relaxation, and other stress management techniques. Offered every semester, some semesters on line.

EXS 304 - Exercise Physiology (3)
Effects of exercise and physical training on the physiological systems of the body, with emphasis on cardio-respiratory systems. Includes muscle contraction mechanisms, circulatory and respiratory adjustment during exercise, and nutrition for physical activity. Cross-listed with AHS 304.
Prerequisite(s): BIO 111 and BIO 207.
Corequisite(s): EXS 306.

EXS 306 - Exercise Physiology Laboratory (1)
Laboratory experiences are provided for insight into the dynamics of human movement from research and clinical perspectives.
Prerequisite(s): BIO 111 and BIO 207
Corequisite(s): EXS 304

EXS 350 - Human Motion Analysis (4)
The anatomical kinesiology and the mechanical bases of human movement in daily life, exercise rehabilitation, sport, and work settings are analyzed. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both. Satisfies the university general education requirement for the capstone experience. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): BIO 205

EXS 401 - Practicum in Exercise Science (5)
Supervised exercise science experience in a program-approved setting with application of HS/EXS and general education knowledge. Students demonstrate exercise science competencies, keep a daily journal, write a critical analysis of the experience, and successfully pass site supervisor evaluation. Satisfies the university general education requirement for the capstone experience. All semesters.
Prerequisite(s): HS 201, EXS 304, EXS 350, completion of general education knowledge foundation courses, and EXS program director permission.

EXS 403 - Human Performance Enhancement (2)
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. Credit will not be awarded for both EXS 403 and EXS 503.
Prerequisite(s): EXS 103 or instructor permission.

EXS 405 - Health and Disease (2)
Examination of the health and medical record with a focus on the history, physical exam, and laboratory and imaging studies. The pathogenesis of representative diseases that are lifestyle related are emphasized. Credit will not be granted for both EXS 405 and EXS 505. Offered summer semester.
Prerequisite(s): BIO 111 and BIO 207, or instructor permission. BIO 205 recommended.

EXS 406 - Educational Psychology for K-12 Educators (4)
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 cultural interactivity. Admission to major. Required field experience. Crosslisted with (FE 506).

EXS 411 - Clinical Biomechanics (2)
The pathomechanics of the human musculoskeletal system. Topics include properties of human tissue, mechanisms of injury, pathokinesiology, and principles of musculoskeletal exercise prescription. Credit will not be granted for both EXS 411 and EXS 511.
Pre/Corequisite(s): EXS 350.

EXS 415 - Exercise Endocrinology (2)
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.
Student must meet the prerequisites: BIO 207 and EXS 304 or have permission of instructor.

EXS 416 - Physical Activity Epidemiology (2)
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.
Prerequisite(s): STA 225 or PSY 251 .

EXS 421 - Basic Athletic Training (2)
Course directed to competitive sports and the recognition and immediate care of athletic injuries. Evaluation and treatment procedures and techniques are presented and practiced. Identical with PT 421. Cross list with EXS 521.
Prerequisite(s): BIO 205, BIO 207, EXS 350

EXS 426 - Exercise Electrocardiography (2)
Theoretical and applied concepts of resting and exercise electrocardiography (ECG), the normal ECG, and factors contributing to abnormal ECG. Students experience exercise test applications of the ECG and learn to recognize life-threatening arrhythmias. Cross list with EXS 550. Offered summer semester.
Prerequisite(s): EXS 304

EXS 432 – Prevention of Injury and Sudden Death in Sport and Physical Injury (2)
An examination of unintentional traumatic, non-fatal injuries; plus fatal catastrophic injuries in the athletic population; including epidemiology, etiology, risk factors, prevention, pathophysiology, recognition, assessment, intervention, recovery and return to play factors. Equivalent to WHP 432. Prerequisite(s): WRT 160 and HS 201; WHP 310 preferred; or instructor permission.

EXS 436 - Environment and Human Performance (2)
Human adaptation to major factors that can significantly influence human movement in diverse micro- and macro-environments, including temperature, altitude, precipitation, light, noise and socio-cultural factors. Credit will not be granted for both EXS 436 and EXS 536.
Prerequisite(s): EXS 304.

EXS 441 - Obesity and Physical Activity (2)
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.
Pre/Corequisite(s): EXS 304.

EXS 445 - Physical Activity and Aging (2)
The effects of aging on physical work capacity, body composition, and cardiovascular, pulmonary, neuromuscular and musculoskeletal function. The principles for prescribing and conducting physical conditioning programs to retard the aging process are included. Credit will not be granted for both EXS 445 and EXS 545. Offered summer term.
Prerequisite(s): EXS 304 and EXS 350.

EXS 450 - Children and Exercise (2)
Physical activity and the growth, maturation, motor development, and motor learning of children from birth through adolescence. Skill and performance enhancement, exercise program design, biomechanics, and injury and disease prevention are discussed. Cross list with EXS 526. Offered summer term in odd-numbered years.
Prerequisite(s): EXS 304 and EXS 350

EXS 460 - Healthy Lifestyle Choices (2)
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. Credit will not be granted for both EXS 460 and EXS 560.
Prerequisite(s): PSY 100, EXS 204; or EXS 304 or HS 201.

EXS 465 - Corporate and Worksite Wellness Programs (2)
Concepts underlying corporate and worksite health promotion programs, including: health and exercise program planning, facility planning and design, program management, staffing, equipment selection, safety and legal issues, and marketing. Credit will not be granted for both EXS 465 and EXS 565. Offered summer semester.
Prerequisite(s): EXS 304 or instructor permission.

EXS 470 - Introduction to Personal Training (2)
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. Offered summer semester.
Prerequisite(s): EXS 103, 304, 306, 350.

EXS 475 - Advanced Personal Training (2)
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. Offered summer semester.
Prerequisite(s): EXS 470.

EXS 483 - Special Topics (1 to 4)
An advanced course involving study of current topics in the practical application of exercise principles. Topics vary. May be repeated for additional credit.
Prerequisite(s): program director permission.

EXS 493 - Directed Study and Research (1 to 4)
Special study areas and research in exercise science. May be repeated for additional credit. Offered every semester.
Prerequisite(s): program permission.

ENVIRONMENTAL HEALTH AND SAFETY (OHS)

EHS - 100 - Introduction to Environmental Health and Safety (1)
Introduces students to various occupational environments through site visits and/or guest speakers and provides firsthand experience of how health and safety professionals function in the workplace

EHS - 115 - Environmental Health and Safety at Work (2)
A general introduction to Environmental Health & Safety in the workplace including injury and illness prevention; hazard identification, assessment and control; emergency response; incident investigation; and safety and health program management. This course is recommended for business, engineering, prelaw, health professions, integrated studies, and occupational safety and health students.

EHS - 141 - Quantitative Methods for Environmental Health and Safety (4)
Application of frequently applied equations, statistical procedures, and analytical tools used for environmental health and safety assessments. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.
Prerequisite(s): STA 225 (2.0).

EHS - 225 - Environmental Health and Safety Training Methods (3)
Provides in-depth study of training methods required to conceptualize, prepare, deliver, and evaluate training directed at the adult learner. Course includes hands-on experiences in conducting a training needs assessment, establishing learning objectives, developing curricula, pertinent to needs of participants using different types of media and developing training evaluation tools.

EHS - 235 - Occupational Safety and Health Standards (3)
Current regulations and standards promulgated by the Occupational Safety and Health Administration of the U.S. Department of Labor, with specific emphasis on Michigan safety and health standards.

EHS - 245 - Professional Practice and Leadership Development (3)
The Professional Development course is designed to improve the ability of students to describe their accomplishments and sell their ideas in situations like professional networking, company meetings, response to proposals for services, and interviews

EHS - 330 - Safety and Health Administration and Programs (3)
Management aspects of health, safety and industrial environment. Administration techniques, governmental regulations, and programs for environmental health and safety management are discussed.
Prerequisite(s): EHS 225 (2.5) and EHS 235 (2.5)

EHS - 331 - Environmental Health and Safety Engineering and Technology (3)
Environmental Health and Safety principles and practices in the industrial and community environment. Engineering and technical information are discussed.
Prerequisite(s): EHS 141 (2.5) and EHS 330 (2.5)

EHS - 332 - Environmental Health and Safety Administration and Programs (3)
Management aspects of the industrial environment. Administration techniques, governmental regulations, and programs for health and safety management are discussed.

EHS - 333 - Fire Prevention and Protection (3)
Overview of the characteristic behavior of fire, and human behavior during fire events. Includes a review of important safety science such as heat transfer, prevention and control of fire and explosion hazards, fire emergency planning and management.
Prerequisite(s): EHS 141 (2.5) and EHS 331 (2.5) or instructor permission.

EHS - 334 - Applied Occupational Hygiene (3)
Basic concepts in the recognition, measurement and evaluation of chemical, physical (noise, radiation, extreme thermal conditions, etc.) and biological (blood borne pathogens, allergens, etc.) hazards in the industrial environment.
Prerequisite(s): EHS 331 (2.5), CHM 201, PHY 101 or PHY 120. Grade 2.0.
Corequisite(s): EHS 336

EHS - 335 - Fundamentals of Occupational Hygiene (3)
Principles and practices on the control aspects (engineering, administrative, and personal protection) of chemical, physical and biological hazards in the industrial environment.
Prerequisite(s): CHM 201 (2.0); PHY 120 (2.0) or PHY 101 (2.0); and EHS 331 (2.5).

EHS - 336 - Applied Occupational Hygiene Laboratory (1)
Quantitative monitoring techniques for measuring and evaluating environmental stress in the industrial workplace.
Prerequisite(s): EHS 331.

EHS - 342 - Advanced Quantitative Methods for Environmental Health and Safety (4)
Provides in-depth application of equations, statistical procedures, and analytical tools for environmental health and safety assessments. Includes discussion of tools for occupational safety and health assessments. Includes discussion of appropriate methods for analyzing deterministic and probabilistic data sets generated from studies in epidemiology, exposure assessment, vapor and particulate transport, and sound-level measurements.
Prerequisite(s): EHS 141 with a minimum GPA of 2.0 or higher.

EHS - 351 - Noise Control and Measurement (2)
Study of the impact of noise on the human body and techniques for measuring noise levels. Design of noise controls. Includes discussion of pertinent federal and state regulations concerning noise exposures in workplaces.
Prerequisite(s): EHS 335 and EHS 336

EHS - 423 - Radiation Safety (3)
Safety aspects of occupational hazards associated with the use of ionizing radiation in industry. Methods for the identification, evaluation and control of potential worker overexposure conditions will be reviewed. Biological effects of acute and chronic worker exposure will also be reviewed.
Prerequisite(s): EHS 335 (2.0) and EHS 336 2.0)

EHS - 434 - Ventilation and Emerging Technologies (4)
Provides in-depth study and practice of the design and evaluation of ventilation systems used in manufacturing, laboratories, and service/processing environments for removal of harmful airborne vapors and particulate matter.
Prerequisite(s): EHS 335, EHS 336 and EHS 342

EHS - 435 - Radiation Exposure Control (2)
Overview of ionizing and non-ionizing radiation sources, their potential health effects, and their control. Course will also include discussion of electromagnetic fields and radio frequencies in regards to effects on human health.
Prerequisite: EHS 335 (2.0) and EHS 336 (2.0) and EHS 342 (2.0)

EHS - 441 - Accident/Incident Investigation and Analysis (3)
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.
Prerequisite(s): EHS 141 (2.5) and EHS 331 (2.5) or instructor permission.

EHS - 442 - Construction Safety (3)
Construction safety practices and principles with an overview of program development, legislative issues and special concerns of the construction industry with respect to worker safety.
Prerequisite(s): EHS 331 (2.5)

EHS - 443 - Robotic and Automation System Safety Analysis (3)
Information and issues related to worker safety in industrial environments where robots are used. The state-of-the-art of advanced automation will be surveyed, with emphasis on system safety and injury prevention features required to assure an adequate worker/robot interface.
Prerequisite(s): EHS 141 (2.5) and EHS 331 (2.5) or instructor permission.

EHS - 444 - Environmental Standards and Controls (3)
Examines air, water, hazardous waste, pesticide and chemical regulatory standards. Topics will be analyzed in terms of standard development, enforcement at state and federal levels, and the validity of the standard's ability to protect health and the environment.
Prerequisite(s): EHS 333 (2.5).

EHS - 445 - Introduction to Ergonomics (3)
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. Cross-listed with WHP 420.
Prerequisite(s): EHS 331 (2.5) and BIO 104 or (WHP 400 and WHP 403) or (BIO 205 and BIO 207) or BIO 111.

EHS - 446 - Industrial and Environmental Toxicology (3)
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. Identical with ENV 446. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): EHS 331(2.5) and CHM 201 or CHM 234.

EHS - 450 - Medical Geology (Geo-Medicine) (4)
Introduces students to the emerging concepts of Medical Geology that examines links between geological materials and processes, (elemental abundance interactions and public health) and the incidence of spatial distributions of human diseases in a population.
Prerequisite(s): EHS 141 (2.5) and EHS 446 (2.5), or can be taken per instructor's permission.

EHS - 480 - Special Topics in Environmental Health and Safety (2 to 4)
Instructor initiated research and investigation into current topics of special interest in the career field of Environmental Health and Safety.
Prerequisite(s): Program director's permission.

EHS - 490 - Directed Study and Research in Environmental Health and Safety (1 to 4)
Student initiated and problem-oriented independent research and study focusing on Environmental Health and Safety issues. May be repeated for additional credit. Graded S/U.
Prerequisite(s): Program director's permission.

EHS - 498 - Environmental Health and Safety Undergraduate Research (3)
The course gives students the opportunity for firsthand, supervised research. “Research” in this course will be defined as mentored, but self-directed, activity that allows individual students or a group of students to investigate issues of interest and with proper communication of the results through written and oral presentations.
Prerequisite(s): EHS 331(2.5) or per adviser’s permission (individual project may require specific prerequisites that the research adviser should identify and recommend before the approval to enroll in this class).

EHS - 499 - Environmental Health and Safety Capstone Course Internship (3)
An experiential learning capstone in Env. Health and Safety in close collaboration with professional health and safety practitioners to expose the intern to health and safety problem identification, evaluation, and control and to health and safety program planning and evaluation. May only be taken by students with major standing and minimum 2.0 GPA in all EHS courses. Graded S/U. Satisfies the university general education requirement for the capstone experience. (Formerly EHS 499)
Prerequisite: Program director permission.

HEALTH SCIENCES

HS 101 - Careers in Health (1)
An introduction to programs and career opportunities offered through the School of Health Sciences. This is an important required course for students interested in all programs within the School. We will address curriculum planning, career options associated with the various programs, internships and capstone experiences.

HS 201 - Health in Personal and Occupational Environments (4)
Current information about the impact of environmental and lifestyle factors on health. The impact of exercise, weight control, substance abuse, nutrition and stress management on a person's ability to cope with environmental stresses will be analyzed. Satisfies the general education requirement in the natural science and technology knowledge exploration area.

HS 205 - Human Nutrition and Health (4)
Chemical, biological, social and psychological elements of human nutrition. Constituents of food and their functions in human health and disease. Identical with HS 301, NH 301, AHS 301.

HS 302 - Community and Public Health (4)
Biological, psychosocial, socio-cultural, economic, philosophical, political, ethical, environmental, community and public health organization factors, as determinants of health are discussed relative to the distribution, cause, prevention, and treatment of disease. Topics include epidemiological health indicators, goals, and systems of health care delivery, disparities, diversity /stereotyping, gender, age and disability issues. Satisfies the university general education requirement in the social science knowledge exploration area and in U.S. Diversity.
Prerequisite(s): HS 201 or instructor permission.

HS 310 - Nutrition and Lifecycles (4)
This course is designed to develop an understanding of the contribution of nutrition to health and well-being throughout the life cycle, and to create a foundation for health promotion and disease prevention during each of life stages.
Prerequisite(s): HS 301 or NH 301 or AHS 301 or HS 205.

HS 311 - Contemporary Topics in Nutrition (2)
Explores the changing frontier of nutritional sciences and provides the basis for understanding and evaluation of new nutritional information with an emphasis on encouraging individuals to make healthy food/lifestyle choices. Identical with NH 311.
Prerequisite(s): HS/NH/AH 301 or HS 205.

HS 312 - Community Nutrition (4)
Explores nutrition issues specific to various populations within the community and incorporates an entrepreneurial approach to improving the public's nutritional and health status. Introduces community nutrition planning, policies, and resources along with techniques for interviewing and counseling clients. Replaces NH 402.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 313 - Nutrition and Culture (4)
Critically evaluate the impact and influences of evolution, geography, environment, social structure and religion on food practices and the human diet. Identify factors that influence current food practices and the influence of culture in what, how, when and why we eat. Replaces NH 404.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 320 - Nutrition and Physical Activity (2)
Course explores the specific roles of energy and nutrients in physical performance. Topics include ergogenic aids, nutritional management, weight change, unique dietary concerns for females, endurance, vegetarian athletes, hydration. Carbohydrate, protein, and fat metabolism during exercise will be explored. Replaces NH 401.
Prerequisite(s): HS/AHS/NH 301 or HS 205

HS 321 - Herbs Supplements & Nutrition (2)
Students will evaluate the scientific validity of dietary supplements and herbs. Focus will be placed on safety, dosage, and bioavailability of individual supplements and their uses for various conditions. Additional topics include governmental regulation of dietary supplements, legal and ethical issues. Replaces NH 403.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 322 - Eating Disorders (2)
Introduction to eating disorders, correlated issues, and treatment. Anorexia nervosa, bulimia nervosa and binge eating disorder to be examined. Topics include development risk factors, health consequences, prevention and intervention strategies. Replaces NH 405.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 323 - Foodborne Illnesses (2)
Introduction to foodborne illnesses and food safety. Overview of concepts of the public health response to foodborne illness, including surveillance, outbreak investigation, discussion of most common agents, and safe practices. USDA Food laws and regulations analyzed. Replaces NH 446.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 324 - Introduction to Food Science (3)
Introductory exploration of foods and food science, including the principles and procedure of food selection and preparation. Replaces NH 330.
Prerequisite(s): HS/AHS/NH 301 or HS 205.
Corequisite(s): HS 325

HS 325 - Introduction to Food Science Lab (1)
Introductory exploration of foods and food science, including the principles and procedure of food selection and preparation. Replaces NH 331.
Prerequisite(s): HS/NH/AHS 301 or HS 205.
Corequisite(s): HS 324.

HS 326 - Food Politics (2)
This course explores how food politics influence the food supply, food processing, and individual dietary decisions. Topics will be explored from both an historical perspective as well as a contemporary perspective to keep up with ever-changing food and nutrition rules and regulations. Replaces NH 406.
Prerequisite(s): HS/AHS/NH 301 or HS 205.

HS 335 - Environmental Health Sciences (4)
This course serves as an introduction to the core concepts, principles, and applications of environmental health sciences. Students will learn the sources of and ways to control the important physical, chemical, biological, and sociological factors that impact human health in various environments.
Prerequisite(s): HS 201.
Pre/Corequisite(s): HS 302.

HS 359 - Public Policy and Health Care (4)
Cross-listed with PS 359.

HS 401 - Human Pathology (4)
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 HS 401 and HS 501. Cross-listed with AHS 401 and HS 501.
Prerequisite(s): BIO 111, 205, 207 or BIO 321.

HS 402 - Field Experience in Integrative Studies (4)
This course integrates previous academic course work into a coherent understanding of how the educational experience serves to enhance individual and community well being. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): senior standing and completion of WRT 160 with at least a 2.0.

HS 405 - Special Topics (2 to 4)
May be repeated for additional credit.
Prerequisite(s): permission of instructor.

HS 423 - Research Methods in the Health Sciences (4)
This course addresses formulating a research question, devising a data analysis plan, and reporting results. Topics include components of a research question, study design, measurement, descriptive analyses, ethical issues in research, and structuring a scientific report.
Prerequisite(s): Include HS 201 (2.0) and STA 225 (2.0) or permission of instructor.

HS 431 – Pharmacology (2)
An introduction to the principles of pharmacology, including the principles of drug therapy and the actions of the basic classes of drugs. Cross-list with HS 531.
Prerequisite(s): BIO 207 or BIO 321.

HS 435 - Environmental Justice (4)
This course presents 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(s): HS 201.

HS 441 - Integrative Holistic Medicine Principles and Practice (4)
Evidence-based complementary and alternative modalities will be explored and used to formulate new, holistic approaches for promoting health and treating diseases. Discussions will be related to students' life experiences and other disciplines. Topics include: stress management, psychoneuroimmunology, biofeedback, nutrition, herbology and oriental medicine.

HS 450 - Law, Values and Health Care (4)
Examination of legal concepts, problems, institutions that shape/control professional responsibility, problems associated with maintaining and terminating life, licensure and related questions in organization and delivery of health services. Satisfies the university general education requirement for the capstone experience. Satisfies university general education requirement for writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement. Identical with AHS 450 and MLS 450.
Prerequisite(s): WRT 160 and senior standing.

HS 451 – Mind-Body Medicine (2)
Examines the role of stress, emotions and other psychological states that bring about physiological changes affecting health and disease. Topics include psychoneuroimmunology, stress management, guided imagery, the relaxation response, exercise, nutrition, laughter and humor, and the role of personality. Applications include patient motivation, empowerment and variability in response to treatment.

HS 455 - Qualitative Research Methods (4)
The course will cover 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. Credit will not be granted for both HS 455 and PH 555.

HS 460 - Nutrient Metabolism (4)
Course addresses the metabolism of carbohydrates, proteins, fats, vitamins, and minerals. Associations with dietary requirements and disease processes, nutrient interactions, nutrient stability and bioavailability, and food sources will be covered. Replaces NH 450.
Prerequisite(s): HS 301, HS 310, CHM 158 or 145, and BIO 207, 321, MLS 425 or BIO 325.

HS 465 - Social Determinants of Health (4)
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 required. Credit will not be granted for both HS 465 and PH 565.

HS 490 - Directed Study (1 to 4)
Student-initiated and problem-oriented directed study focusing on health sciences issues. May be repeated for additional credit. Graded numerically or S/U.
Prerequisite(s): departmental permission.

HISTOTECHNOLOGY

HT 401 - Basic Histotechnique and Histochemical Staining Methods (12)
Didactic and practicum experience in preparing histologic sections for light microscopy, including the study of over 50 different histologic and enzyme histochemical staining methods and their specific applications.
Prerequisite(s): Histotechnology specialization standing.

HT 402 - Basic Electron Microscopy (3)
Didactic and practicum experience in basic biological electron microscopy. Electron microscopic histochemistry and special techniques are also covered. Emphasis is on the electron microscope as a medical diagnostic tool.
Prerequisite(s): Histotechnology specialization standing.

HT 403 - Immunohisto-Cytochemistry (5)
Didactic and practicum experience in basic and advanced procedures of fluorescent and enzyme-labeled antibody techniques. Includes the preparation of tissues, staining with labeled antibodies and the use of the fluorescence microscope in clinical medicine and research.
Prerequisite(s): Histotechnology specialization standing.

HT 404 - Special Techniques (4)
Didactic and practicum experience in molecular pathology (in situ hybridization and DNA analysis), management, education methodology, technical writing and research techniques.
Prerequisite(s): Histotechnology specialization standing.

MEDICAL LABORTORY SCIENCES

MLS 201 - Careers in Biomedical Diagnostic and Therapeutic Sciences (1)
An introductory seminar in biomedical diagnostic and therapeutic sciences, including career opportunities in clinical settings (medical laboratory science, histotechnology, cytotechnology, nuclear medicine technology, radiation therapy, radiologic technology), industrial sales and/or research and development, basic medical research and education. Offered fall semester.

MLS 205 - Contemporary Issues in Health Care Organizations and Practice (2)
An understanding of laboratory and health care organizations and issues to prepare students as professional practitioners to function effectively in a rapidly changing environment. Offered fall and summer semesters.

MLS 210 - Medical Terminology (1)
This course is designed as an independent study using a programmed text. Initial emphasis is on learning Greek and Latin word parts and rules for combining them, with cumulative study directed to the analysis and definition of medical terms. Offered fall, winter, and summer semesters.

MLS 226 - Introduction to Laboratory Theory and Techniques (2)
Basic concepts and principles in the practice of clinical laboratory science. Integration of principles of phlebotomy, microscopy, laboratory mathematics, spectrophotometry, and laboratory safety. Offered fall, winter semesters.
Prerequisite(s): CHM 157 or (CHM 144 and CHM 147)

MLS 312 - Hematology/Cellular Pathophysiology (3)
Topics include current concepts of hematopoiesis, including selected topics in red blood cell, white blood cell and platelet morphogenesis, physiology and pathophysiology; an introduction to the basic principles involved in cellular disease mechanisms. Offered fall semester.
Prerequisite(s): BIO 207 or instructor permission

MLS 313 – Immunohematology (4)
Discussion of the immunologic and genetic basis for the study of red cell antigen/antibody systems, including physiologic and pathophysiologic consequences of foreign antigen exposure. Laboratory included. Offered fall semester.
Prerequisite(s): BIO 207, MLS 226, and MLS 423; or instructor permission.

MLS 314 – Hemostasis (3)
In depth study of the basic physiology and pathophysiology of the human hemostatic system, including the role of the vasculative, platelets and plasma proteins. Laboratory included. Offered fall semester.
Prerequisite(s): BIO 207 and MLS 226; permission of instructor.

MLS 327 - Clinical Chemistry (4)
A theoretical introduction to the fundamentals of clinical chemistry, with emphasis on pathophysiology and clinical correlations. To include an introduction to theoretical and practical aspects of relevant instrumentation and methods of clinical analysis. Offered fall semester.
Prerequisite(s): MLS 226 and MLS 425

MLS 328 - Clinical Chemistry Laboratory (1)
Provides practical experience in the application of clinical instrumentation and current clinical methodologies to the performance of clinical chemistry assays. Offered fall semester.
Prerequisite(s): MLS 226
Corequisite(s): MLS 327

MLS 335 - Clinical Parasitology/Mycology/Virology (3)
Introduction to clinical parasitology, mycology and virology. Included are: morphology, life cycles, reproduction, classification and diseases in humans. Offered winter semester.
Prerequisite(s): BIO 111 and MLS 226

MLS 336 - Clinical Parasitology/Mycology/Virology Laboratory (1)
Laboratory to accompany MLS 335. Includes basic parasitology and mycology isolation and identification procedures such as staining, and macroscopic and microscopic observations. Also includes very basic rapid virology diagnostic techniques. Offered winter semester.
Prerequisite(s): BIO 111 and MLS 226
Corequisite(s): MLS 335

MLS 400 - Medical Genetics (4)
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. Offered fall semester.
Prerequisite(s): BIO 207

MLS 402 - Molecular Diagnostics (3)
Discussion of diagnosis of disease on a molecular level including current molecular diagnostic techniques and procedures, and correlation with clinical conditions. Laboratory included. Offered winter semester.
Prerequisite(s): MLS 226, MLS 400.

MLS 405 - Special Topics (1 to 4)
May be repeated for additional credit.
Prerequisite(s): permission of instructor.

MLS 416 - Medical Hematology (4)
Theory and techniques in hematology, including red blood cell, white blood cell, and platelet morphogenesis, physiology, and pathophysiology. Offered winter semester.
Prerequisite(s): BIO 207
Corequisite(s): MLS 417

MLS 417 - Hematology Laboratory (1)
To accompany MLS 416. Offered winter semester.
Prerequisite(s): MLS 226

MLS 423 - Medical Immunology (3)
An introduction to the principles and practices of immunology with emphasis on cellular and molecular interactions, using an experimental approach. This course will include the normal immune responses and clinical conditions, including autoimmunity, immunodeficiency, hypersensitivity disorders and transplant rejection. Offered winter semester.
Prerequisite(s): BIO 207

MLS 425 - Medical Biochemistry (4)
An integrated approach to human biochemistry stressing metabolic interrelationships. Topics covered include: structure and function of proteins, carbohydrates and lipids; enzyme mechanisms and regulation; metabolic pathways and control; nucleic acid structure, function and processing; regulation of gene expression; intracellular and extracellular signal transduction. Offered fall and summer semesters.
Prerequisite(s): (BIO 207 and CHM 158) or (CHM 145 and 148)

MLS 430 - Clinical Microbiology (4)
Provides a background in basic medical microbiology, including the morphology, cultivation, identification and control of microorganisms. Offered summer and fall semesters.
Prerequisite(s): BIO 111.

MLS 431 - Clinical Microbiology Laboratory (1)
Laboratory to accompany MLS 430. Includes basic microbiological procedures such as aseptic technique, isolation, cultivating, biochemical characteristics and staining of selected microbes, with regard to their importance in the diagnosis of human diseases. Offered summer and fall semesters.
Prerequisite(s): MLS 226
Corequisite(s): MLS 430

MLS 432 - Medical Microbiology Laboratory (1)
Laboratory for non-CLS majors to accompany MLS 430. Includes basic microbiological procedures such as aseptic technique, isolation, cultivation, biochemical characteristics, and staining of selected microbes, with regard to their importance in human diseases. Offered summer and fall semesters.
Corequisite(s): MLS 430

MLS 440 - Clinical Correlations (3)
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. Offered winter semester.
Prerequisite(s): MLS 313, 314, 327, 416, and 430.

MLS 490 – Directed Research (2 to 4)
May be repeated for additional credit.
Prerequisite(s): permission of instructor.

MLS 497 - Apprentice College Teaching (2)
Directed teaching of selected undergraduate courses. May be repeated for a maximum of 4 credits. Graded S/U.
Prerequisite(s): permission of instructor.

MLS 498 - Directed Readings (1 to 4)
Student initiated and problem-oriented directed study focusing on medical laboratory science issues. May be repeated for additional credit.
Prerequisite(s): program permission.

NUCLEAR MEDICINE TECHNOLOGY

NMT 401 - Clinical Internship I (12)
Didactic and clinical experience in clinical nuclear medicine including instrumentation, radio pharmacy, ligand assay, organ imaging and therapy with radionuclides.
Prerequisite(s): program permission.

NMT 402 - Clinical Internship II (12)
Continuation of NMT 401.

NMT 403 - Clinical Internship III (8)
Continuation of NMT 402.

RADIOLOGIC TECHNOLOGY

RAD 311 - Methods of Patient Care I (2)
An overview of basic nursing procedures such as sterile technique, vital body signs, shock, fracture, etc.; correct body mechanics and patient transport; routine and emergency patient care procedures; the purpose and radiographic identification of tubes/lines.
Prerequisite(s): RAD specialization standing.

RAD 331 - Radiologic Physics I (3)
The principles of atomic theory, x-ray production and generation, and the characteristics of x-rays. The entire x-ray circuit is covered, as well as the function of the circuits' individual components. Basic electronics, electrostatics, magnetism, the structure of matter, etc. are covered.
Prerequisite(s): RAD specialization standing.

RAD 333 - Principles of Radiographic Exposure I (3)
This course covers the principles of x-ray and image receptor exposure. Topics include: attenuation, image formation, image brightness and gray scale interpretation.
Prerequisite(s): RAD specialization standing.

RAD 334 - Principles of Radiographic Exposure II (2)
Continued focus on image formation and image receptor exposure. Topics include factors affecting image quality and automatic exposure control.
Prerequisite(s): RAD specialization standing.

RAD 341 - Radiographic Procedures I (4)
An introduction to radiographic positioning, terminology and procedures. Instruction in radiographic anatomy, positioning and pathology of chest, abdomen, upper extremity and lower extremity.
Prerequisite(s): RAD specialization standing.
RAD 342 - Radiographic Procedures II (2)
Instruction in radiographic anatomy, positioning and pathology of the bony pelvis, bony thorax and entire spine.

RAD 343 - Radiographic Procedures III (2)
Instruction in the radiographic anatomy, positioning and pathology of the gastrointestinal and urinary systems. Exploration into special imaging topics.
Prerequisite(s): RAD specialization standing.

RAD 345 - Radiographic Image Evaluation I (2)
An in-depth study of basic radiographic images, focusing on critique of images based on proper positioning, and pathology.
Prerequisite(s): RAD specialization standing.

RAD 404 - Quality Assurance and Imaging (3)
Elements of a radiology quality assurance program with specific equipment testing methods are presented. Examines in-depth digital concepts regarding post processing images and other digital applications.
Prerequisite(s): RAD specialization standing.

RAD 407 - Radiation Biology and Protection (2)
Overview of the principles of radiation interactions with living organisms. Early and late effects of radiation exposure are discussed. Methods to limit occupational and patient exposures are covered.
Prerequisite(s): RAD specialization standing.

RAD 411 - Methods of Patient Care II (1)
Examination of medical emergencies, radiographic contrast material and pharmacology. Venipuncture and interventional radiography are included.
Prerequisite(s): RAD specialization standing.

RAD 431 - Radiologic Physics II (3)
Continuation of RAD 331.

RAD 433 - Principles of Radiographic Exposure III (2)
Focus on digital aspect of radiographic image production. Basic computer and digital concepts are discussed, as well as analysis of the digital image.
Prerequisite(s): RAD specialization standing.

RAD 434 - Principles of Radiographic Exposure IV (3)
Exploration of the use of specialized diagnostic equipment in fluoroscopy, mobile radiography, tomography and mammagraphy.
Prerequisite(s): RAD specialization standing.

RAD 441 - Radiographic Procedures IV (3)
Instruction in radiographic anatomy, positioning and pathology of the skull, sinuses, facial bones, nasal bones and mandible. Includes exploration of mammography, trauma, mobile, surgical, and pediatric radiography.
Prerequisite(s): RAD specialization standing.

RAD 442 - Radiographic Procedures V (3)
Instruction in advanced radiographic procedures. Topics include special positions and procedures; sectional anatomy; research/presentation of an imaging topic of student interest.
Prerequisite(s): RAD specialization standing.

RAD 445 - Radiographic Image Evaluation II (1)
An in depth study of basic radiographic images focusing on critique of images based on positioning, pathology, radiation protection and technical image quality. This course requires student research and formal presentation of findings.
Prerequisite(s): RAD specialization standing.

RAD 450 - Senior Seminar (2)
This course covers emerging technologies, special radiography and career topics. Topics include: preparation for credentialing in radiography, credentialing exam strategies, review of specific credentialing topic areas. Simulated credentialing exams and student specific results are reviewed.
Prerequisite(s): RAD specialization standing.

RAD 451 - Clinical Practicum I (3)
Student will gain hands-on experience and begin to achieve competency in basic radiographic procedures under the supervision and guidance of registered technologists.
Prerequisite(s): program permission.

RAD 452 - Clinical Practicum II (3)
Continuation of RAD 451. Increased participation and performance is expected.
Prerequisite(s): RAD specialization standing.

RAD 453 - Clinical Practicum III (3)
Continuation of RAD 452. Increased participation and performance is expected. Emphasis on progression of competency and professional development.
Prerequisite(s): RAD specialization standing.

RAD 454 - Clinical Practicum IV (3)
Continuation of RAD 453. Emphasis is placed on increased competence and confidence in the development of personal routine practices.
Prerequisite(s): RAD specialization standing.

RAD 455 - Clinical Practicum V (3)
Continuation of RAD 454. Opportunities are provided in general radiography and advanced imaging modalities. Emphasis is placed on increased competence and confidence in the development of personal routine practices.
Prerequisite(s): RAD specialization standing.

RAD 456 - Clinical Practicum VI (3)
Continuation of RAD 455. Opportunities are provided in general radiography and advanced imaging modalities. Focus is on performing at entry-level.
Prerequisite(s): RAD specialization standing.

RADIATION THERAPY

RT 350 - Sectional Anatomy (2)
An introduction to medical imaging methods currently used in the field of radiation therapy. Students will identify normal anatomical structures via a variety of imaging formats. Basic anatomical relationships will be compared using topographical and cross sectional images.

RT 410 - Operational Issues in Radiation Therapy (2)
Course focuses on various radiation therapy operational issues, including: continuous quality improvement (CQI) project development, and evaluation and assessment techniques; concepts of human resource and regulations; accreditation agencies, and the therapist's role in the accreditation process; billing and reimbursement issues pertinent to the radiation therapy department.

RT 420 - Comprehensive Review of Radiation Oncology I (2)
A comprehensive overview of radiation theory, principles, practices and procedures.

RT 421 - Comprehensive Review of Radiation Oncology II (2)
Continuation of RT 420.

RT 422 - Comprehensive Review of Radiation Oncology III (2)
Continuation of RT 421.

PHYSICAL THERAPY

PT 302 - Physical Therapy as a Profession (2)
A course for students who are considering a career in physical therapy. Students will examine professional development, behavior and roles in physical therapy clinical, academic and research settings. The current practice of physical therapy in various settings is covered.
Prerequisite(s): junior standing.

PT 421 - Basic Athletic Training (2)
Course directed to competitive sports and the recognition and immediate care of athletic injuries. Evaluation and treatment procedures and techniques are presented and practiced. Identical with EXS 421. Credit will not be awarded for both EXS 421 and EXS 521.
Prerequisite(s): EXS 350, BIO 207, BIO 205

PT 490 - Directed Study (1 to 4)
Student initiated and problem-oriented directed study focusing on physical therapy issues. May be repeated for additional credit. Graded numerically or S/U.
Prerequisite(s): program permission.

WELLNESS, HEALTH PROMOTION AND INJURY PREVENTION

WHP 208 - Advanced First Aid/CPR Instruction (2)
Fundamentals of First Aid Instructor training are provided, leading to instructor certification. Students identify appropriate first aid and CPR teaching methods, apply appropriate individual and group learning facilitation skills, and become conversant with the teaching of several advanced first aid and safety modules.
Prerequisite(s): EXS 207

WHP 310 - Injury Prevention, Control, and Safety Promotion (4)
Epidemiology of unintentional or intentional injuries, including violence: Topics include magnitude and cost to society, issues, principles, models, surveillance, advocacy, educational, environmental and enforcement intervention strategies, and program evaluation, for safety in the home, during activities of daily living, sport, leisure, recreational, occupational, and high-risk activities. Satisfies the university general education requirement in the knowledge applications integration area. Satisfies the university general education requirement for a writing intensive course in general education or in the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement. Prerequisite for knowledge applications integration: completion of the university general education requirement in the natural science and technology or the social science knowledge exploration area, not both.
Prerequisite(s): HS 302, WHP 350 and program director permission.

WHP 311 - Community Emergency Response Team (CERT) Preparedness (2)
Concepts, rationale, theory and practical applications of basic citizen preparedness for disaster survival and rescue skills are taught using the Department of Homeland Security CERT curriculum, leading to certification. CERT is designed to prepare individuals to help themselves and the immediate community in the event of a catastrophic disaster. Graded S/U.

WHP 315 - Laughter as Therapeutic Modality (4)
Exploration of the health benefits of laughter therapy including mediatory effects on immune system functioning, pain reduction, and utility in stress management. Students will investigate the extant research relating to humor as a healing modality, while having opportunities to add to that knowledge through a laboratory component. Satisfies the university general education requirement in the knowledge application integration area. Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.
Prerequisite(s): completion of the university writing foundation requirement. Completion of the university general education requirement in either the natural science and technology or the social science knowledge exploration area. HS 201 or PSY 100 recommended.

WHP 325 - Issues in Women's Health (4)
Examines, medical, sociological, political and financial aspects of women's health issues. Includes an historical look at women's health in the U.S., the roles women have played in health care and the roles of women as health care providers. Identical with WS 325.

WHP 340 - Contemporary Issues in Personal Health (2)
Contemporary issues in personal health are examined from biological, psychological, sociological, philosophical, and ethical perspectives. Exploration of personal protection and health issues related to human sexuality, substance use and abuse, anger, violence, and workplace abuse.
Prerequisite(s): HS 201, HS 302, WRT 160.

WHP 350 - Health Program Implementation (4)
Needs analysis, planning, design, development, equipment, choice, and delivery/management of health and wellness programs/centers are emphasized. Students are introduced to topics including organizational development, program, human and financial management, staff selection and development, facility maintenance, health, safety, and legal issues.
Prerequisite(s): Prerequisites(s): WRT 160, HS 201. Program director permission.
Pre/Corequisite(s): HS 302

WHP 360 - Wellness Facilitation (4)
Processes designed to facilitate optimum human interaction in a wellness setting. Fundamental issues related to the presentation of health promotion messages for one-to-one, small, or large group settings. Topics include individual and group dynamics, development, written and oral presentation of wellness-related information, non-verbal communication, debate, persuasion, leadership, problem solving, change and conflict.
Prerequisite(s): HS 201 and PSY 100

WHP 370 - Culture, Ethnicity and Well-being (4)
Interaction between biological, social, political and cultural environments as they affect health, illness, and treatment. Includes historical, organizational, demographic, ecological, behavioral and other factors influencing health and wellness outcomes. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): PSY 100 and/or HS 201 recommended.

WHP 380 - Persuasion and Marketing in Health Promotion (4)
Persuasion and marketing in health promotion. Persuasive activities in the development of health communication messages; critical analysis of persuasion, campaigns and movements related to the marketing of health images and health promotion; the theoretical basis of strategies and tactics employed to shape and change opinions about health related topics applied to contemporary events.
Prerequisite(s): WHP 360

WHP 400 - Assessment and Interventions in Wellness (4)
A systems approach to understanding functional anatomy, physiology and lifestyle issues in relation to disease prevention and wellness. With WHP 403 students learn health risk appraisal and physical assessment techniques that lead to design of intervention strategies for health enhancement and prevention of disease.
Prerequisite(s): Program director permission.

WHP 401 - Internship in Wellness, Health Promotion and Injury Prevention (4)
Supervised general experiences in a variety of wellness educational settings. Students must be approved to attend an internship site prior to registration. A list of approved internship sites is available through the program office. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): Completion of WHP core curriculum and complement credits and program director permission.

WHP 402 - Senior Culminating Experience (4)
Supervised project and/or undergraduate research experience at a specialized site, culminating in a written report. Students must have an approved project and site prior to registration.
Prerequisite(s): GPA 3.2 program director permission.

WHP 403 - Laboratory in Assessment and Interventions (4)
This corequisite course complements WHP 400 by preparing students for the rigors of implementing health risk appraisals and assessment techniques. Design of intervention strategies for lifestyle and health enhancement and disease prevention are covered.
Prerequisite(s): Program director permission.

WHP 405 - Special Topics (1 to 4)
An advanced course involving study of current topics in the practical application of wellness principles. Topics vary. May be repeated for additional credit.
Prerequisite(s): program director permission.

WHP 410 - Advanced Injury Prevention, Control and Safety Promotion (1 to 4)
Directed study/project covering factors associated with non-industrial events resulting in injury or death, including critical appraisal of intervention strategies, and/or the design and delivery of a comprehensive intervention program.
Prerequisite(s): WHP 310

WHP 420 - Injury Prevention and the Environment (4)
The interaction of people and the environment is examined relative to injury risk reduction. Physical, psychosocial and environmental challenge factors, including concepts in kinesiology, human-machine interface systems, plus wellness objectives of reduced energy expenditure, enhanced health and safety, and increased productivity and human satisfaction are addressed.
Prerequisite(s): WHP 310

WHP 431 - Crisis Intervention and Prevention of Self Harm (4)
Provides an introduction to crisis intervention and the prevention of self harm from a health promotion perspective.
Prerequisite(s): Permission of instructor. WHP 310 preferred.

WHP 432 – Prevention of Injury and Sudden Death in Sport and Physical Activity (2)
An examination of unintentional traumatic, non-fatal injuries; plus fatal catastrophic injuries in the athletic population; including epidemiology, etiology, risk factors, prevention, pathophysiology, recognition, assessment, intervention, recovery and return to play factors.
Prerequisite(s): WRT 160 and HS 201; WHP 310 preferred; or instructor permission.

WHP 440 - Mindfulness in Well-Being (4)
An overview of mindfulness, the mind-body connection, practice of mindfulness (formal and informal), stress reduction, mindfulness of the body, mindfulness for anxiety and stress, transforming fear, and interpersonal mindfulness.
Prerequisite(s): WRT 160, HS 201 with minimum grade of 2.5.

WHP 460 - Evaluation of Health and Wellness Programs (4)
Systematic examination of practical skills needed to evaluate health promotion programs in a variety of settings. Emphasis on assessing needs and developing feasible objectives, measurement instruments and sampling, community organizing, implementation, evaluation, and data analysis and reporting. Attention will be given to various types of evaluations, such as formative process, summative, outcome and impact evaluations. The importance of validity and reliability also will be highlighted.
Prerequisite(s): PSY 250; STA 225; WHP 310, 350, 360, 400, 403.

WHP 461 - Modalities for Healing (4)
Healing differentiated from curative approaches, and an introduction to frequently used complementary and alternative therapies including massage, hypnosis, herbology, osteopathic manipulation, acupuncture, chiropractic, naturopathy and homeopathy. Critical examination of the techniques used, possible mechanisms, evidence for safety and efficacy, and professional training/credentialing.
Prerequisite(s): HS 441 or HS 451

WHP 462 - Healing Traditions (4)
This course examines and compares Eastern and Western healing traditions. Origin, evolution, applications, and degree of acceptance of these healing traditions is examined with regard to individual beliefs, and in relation to cultural, historical, political, and economic aspects of competing health systems.
Prerequisite(s): HS 441 or 451

WHP 493 - Directed Study and Research in Wellness, Health Promotion and Injury Prevention (1 to 4)
Independent problem-directed study and research focusing on wellness, health promotion and injury prevention issues. May be repeated for additional credit.
Prerequisite(s): program director permission.

The Honors College

210 Oak View Hall
(248) 370-4450

Director: *Graeme Harper, DCA Ph.D. FRGS FRSA FRAI FAIM*

Council: *Amy Banes-Berceli, Biology; Eddie Cheng, Math; Virgil Zeigler-Hill, Psychology; David Kidger, Music; Ji-Eun Lee, Education; Erin Meyers, Communication and Journalism; Thomas Raffel, Biology; Matthew Fails, Political Science; Sanela Martic, Chemistry/Biochemistry; Christopher Clason, Modern Languages; Brad Roth, Physics; Susan Wood, Art History; Karen Conn, Administrative Assistant; Debra Weeks, Office Assistant*

The Honors College was established to provide highly motivated students an intellectually stimulating community. The curriculum offers a distinctive undergraduate experience that integrates the arts, sciences and professional fields through creative research, colloquia, scholarly and extra-curricular activities, as well as leadership and service opportunities within the university and larger community. It offers specially designed general education requirements in conjunction with a departmental major. Students applying to the Honors College must first be admitted to or enrolled at Oakland University. Courses with the HC prefix are open only to students who have been accepted into the Honors College. Please visit our website at oakland.edu for additional information on the Honors College, its programs and requirements.
Requirements and Procedures

Departmental majors

Each student must complete a departmental major in the College of Arts and Sciences or a prescribed course of study in the School of Business Administration, the School of Education and Human Services, the School of Engineering and Computer Science, the School of Health Sciences or the School of Nursing.

A student who is not pursuing a standard major (for example, a student with an independent major) may be accepted to the Honors College if the Honors College Council determines that the student's program is of sufficient breadth, depth and coherence.

General education requirements of the honors college

1. The student must successfully complete HC 100 and at least three Honors College core courses (16 credits), selected from HC 201, HC 202, HC 204 , HC 205 , HC 206 HC 207 or HC 208.
2. The student must successfully complete at least one approved general education course in each of the 10 knowledge areas that are not covered by the HC core courses taken.
3. The student must complete an approved writing intensive course in general education, (which may be satisfied by choosing an HC 202 course after completion of WRT 160), a writing intensive course in the major, a diversity course and a capstone. These four requirements may be met by courses that double-count in other general education areas or in the major.
4. The student must complete a four semester foreign language requirement (see policy on the Honors College website).
5. The student must successfully complete HC 390 in the year befor graduation.
6. The student must complete a senior thesis. (see Honors College website for deadlines).

Note: Honors College requirements partially replace university general education requirements and replace Explorations requirements for students in the College of Arts and Sciences.

Community service

The student must complete one approved project of sustained service for a minimum of 10 hours per year for a total of 40.

Good standing

The student must maintain good standing in the Honors College at all times. A copy of "Good Standing Guidelines" is available in the Honors College office or online.

Honors thesis

Each Honors College student must successfully complete a major creative or scholarly project under the supervision of a faculty mentor. Proposals for all Honors College theses must be approved by the Honors College Council prior to proceeding with work. The student may receive departmental or Honors College independent study credit for all or part of this work. The student may, but is not required to, register for HC 490. The project must be independently designed and completed. If graduating in summer or fall (December commencement) the deadline is October 15 of the same year. If graduating in Winter or Summer (May commencement) the deadline is February 15 of the same year.

Thesis research grant

Students can apply for an HC thesis research grant to support the completion of their HC thesis at the time the thesis proposal is submitted.

Grade point average and graduation honors

A minimum grade point average of 3.50 is required for graduation. The diploma indicates that the student is a graduate of The Honors College.

The Honors College offers

The Honors College offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each semester may be found in the Schedule of Classes sail.oakland.edu and on the Honors College website.

Course Descriptions

The Honors College offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each semester may be found in the Schedule of Classes sail.oakland.edu and on the Honors College website.

HONORS COLLEGE

HC 100 - First Year Colloquium (4)
First year course prepares students to undertake the challenges and responsibilities of an academically prepared Honors College student. Required for all incoming Honors College freshmen in their first semester at Oakland University.

HC 201 – Art (4)
Designed to provide an understanding of how art embodies and reflects particular perceptions and expressions of the world. This course helps students understand and appreciate the beautiful and develop aesthetic criteria whereby to better appreciate art and the way it captures human experience. May be repeated for 4 extra credits. Satisfies the university general education requirement in the arts knowledge exploration area.

HC 202 – Literature (4)
Prepares students with strategies of how to read, understand, and appreciate literary texts. The course also makes it possible for students to enter into a vicarious experience which, as George Eliot puts it, is the most important thing we owe the artist. May be repeated for 4 extra credits. Satisfies the university general education requirement in the literature knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

HC 203 - Honors College Core Courses (4)
Honors College Core Courses. Satisfies the university general education requirement in the literature knowledge exploration area. Satisfies the university general education requirement for a writing intensive course in general education. Prerequisite for writing intensive: completion of the university writing foundation requirement.

HC 204 - Western Civilization (4)
Explores the political, social, economic, and intellectual aspects of Western culture, and how Western culture and ideas have been constituted. May be repeated for 4 extra credits. Satisfies the university general education requirement in the western civilization knowledge exploration area.

HC 205 - Global Perspective (4)
Examines non-Western culture to show the similarities and differences among cultures. It reads the international scene from its own points of entry and explores how non-western cultures view the West. May be repeated for 4 extra credits. Satisfies the university general education requirement in the global perspective knowledge exploration area.

HC 206 - Social Science (4)
Looks to social science and its particular methods of scientific inquiry. Of particular interest are the ways societal and cultural factors influence and shape individual and/or group behaviors and values. May be repeated for 4 extra credits. Satisfies the university general education requirement in the social science knowledge exploration area.

HC 207 - Formal Reasoning (4)
Examines systematic and/or creative ways to approach, process, and analyze data and ideas from different disciplines. The course concerns itself with quantifiable evidence and symbolic systems of analysis. May be repeated for 4 extra credits. Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

HC 208 - Natural Science and Technology (4)
Provides students with an introduction into the major fields of natural science and technology. While the natural science focus acquaints students with things pertaining to the natural world, whether biological, physical, chemical, or environmental, the technology focus introduces students to ancient and/or current means of technology. May be repeated for 4 extra credits. Satisfies the university general education requirement in the natural science and technology knowledge exploration area.

HC 303 - Ethics in Human Resource Development (4)
Introduces the forces that shape ethical behavior in the workplace; ethical considerations in transactions with employees, supervisors and peers; ethical responsibility in the marketplace and society; and how to solve ethical problems.
Prerequisite(s): WRT 160 or equivalent.

HC 390 - Introduction to the Thesis (1)
Required for Honors College students in the first semester of their junior year. The course addresses such topics as deriving a thesis statement, researching in the disciplines, research techniques, appropriate documentation and writing the thesis proposal.
Prerequisite(s): minimum of three Honors College courses and completion of language requirement.

HC 490 - Independent Study (2 or 4)
Supervised instruction of the Honors College thesis or independent project. May be repeated for credit. Offered each semester.

International Education

International Education
Oakland University
O'Dowd Hall, Rooms 334 – 338
586 Pioneer Drive
Rochester, MI 38309

(248) 370-2889
Department Website: oakland.edu/ie

Director: *Alex Zimmerman*

Coordinator International Ed.: *Cynthia L. Weil*

Office Assistant ll: *Shirley A. Campbell Smith*

The mission of the Office of International Education is to encourage, to support, and to facilitate students' and faculty's studying, conducting research, and teaching in international settings, and to facilitate and encourage the presence of foreign students and faculty on our campus. The Office seeks to increase and deepen the University's engagement in global education through agreements with universities and other appropriate institutions around the world. It also serves as a resources center for the Oakland academic community by providing information on international study and research opportunities for faculty and students. Through such endeavors, the Office affirms the importance of a global outlook as an essential part of the university's overall mission.)

School of Nursing

3008 HUMAN HEALTH BUILDING (248) 370-4253
Fax: (248) 364-8740
School Website: oakland.edu/nursing/

Interim Dean: *Gary Moore*

Interim Associate Dean: *Deana Hays*

Office of the Dean: *Kristina Aaron, director of advising; Patrina Carper, senior academic adviser; Joann Denby, technical support coordinator; Tiffany Fronek, interim coordinator of academic services; Nicholas Hooper, academic adviser; Amy Johnson, administrative project coordinator; Kenyettera Junior, business manager/financial analyst; Cheryl McPherson, assistant dean; Sarah Mullin, senior academic adviser; Colette O'Connor, director of development; Tomico Reynolds, special projects assistant; Teresa Rodges, executive director of continuing education; Ashley Samson, events coordinator; Emily Stepanian-Bennett, academic adviser; April Thomas-Powell, academic adviser; Thomas Yoder, information technology specialist*

Professors Emerita: *Frances Jackson, Mary Mittelstaedt, Justine Speer, Diane Wilson, Carol Zenas*

Professors: *Suha Kridli, Barbara Penprase, Cheryl Riley-Doucet, Darlene Schott-Baer*

Maggie Allesee Endowed Professor in Gerontology: *Ann Whall*

Crittenton Hospital Medical Center Endowed Professor: *Barbara Penprase*

Associate Professors*: Carrie Buch, Karen Dunn, Judith Fouladbakhsh, Margaret Harris, Anne Mitchell, Gary Moore, Sarah Newton, Laura Pittiglio*

Assistant Professors: *Margaret Glembocki, Mary Golinski, Claudia Grobbel, Anne Hranchook, Julia Paul, Meriam Stevens, Lan Yao*

Adjunct Instructors: *Teresa Chahine, Nicole Clark, Ellen Gajewski, Deana Hays, Kimberly Holka, JoAnn Kapa, Colleen Meade Ripper, Renee Mirovsky, Katie Mysen, Lynda Poly-Droulard*

Visiting Instructors: *Carly Miller*

Special Instructors: *Janith Beres, Kelly Berishaj, Carolyn Kollar-Tieppo, Kathleen Spencer, Stephanie Vallie*

Director of Nursing Laboratories: *Patricia Ketcham*

Focus Hope: *Anglesia Brown, Cheniece Lyons, Celia Robinson*

Board of Visitors

The Board of Visitors for the School of Nursing is composed of community leaders from the greater Detroit area. The Board of Visitors assists the School of Nursing with fundraising and it provides scholarships for students.

Members of the Board of Visitors are:

Marie Adam, Lead Manager, Medical Operations, Administration & Compliance for Fiat Chrysler Automobiles US LLC
Maggie Allesee, Counselor

Maureen Bowman, MA, BSN, RN, NEA-BC, Vice President & Chief Nursing Officer, Beaumont Health System-Royal Oak
Robert Chiaravalli, ESQ, President, Strategic Labor & Human Resources, LLC
Shukri David, M.D., FACC, Section Chief for the Division of Cardiology at Providence Hospital and Medical Centers and Medical Director of the Heart & Vascular Center of Excellence at St. John Providence Health System
Kay Douglas, President & CEO, Douglas Marketing Group
Grace Fortuna, EdD., RN, CHES, FAAOHN, is Chief Clinical Officer of Kelly Healthcare Resources
Debbie Guido-Allen, MBA, BSN, RN, NE-BC, Vice President and Chief Nursing Officer-Nursing Support Services,Beaumont Health System Troy
Adreena Harley, MSN, NE-BC,Volunteer, Intern Programs at HAVEN
Karen Harris, MSN, RN, WHNP-BC, Vice President of Patient Care Services/Chief Nursing Officer, Henry Ford West Bloomfield Hospital
Gregory Jamian, BA, President & CEO,AmeriCare Medical, Incorporated
Chris Johnson, Associate Vice President of New Business and Consumer Solutions for Health Alliance Plan
Shawn Levitt, MHSA, RN, FACHE, CPHQ, Regional Chief Nurse Executive of the Detroit Medical Center
Ann McDonald-Upton, RN, FACHE, Administrator, Children's Hospital of Michigan-Troy
Denise McLean, RN, MSN, Southfield Nursing Site Lead and Director of Critical Care Services at Providence Hospital in the St. John Providence Health System
Gary Moore, Ph.D.,RN, Interim Dean, Oakland University School of Nursing
Chrystal Roberts is an H.R. Committee member for Alternatives for Girls
Kathleen M. Ryan, RN, MHSA, is a member of the West Region Board of Trustees for St. John Providence Health System
Sandra Schmitt, RN, BSN, Manager, Nursing Development & Clinical Outreach, Beaumont Health
Michelle Seid, RN, BSN, became a Board of Visitors member in early 2011, and also participates in the School of Nursing Alumni Committee
Nancy Susick, RN, MSN, NE-BC, is Senior Vice President, Beaumont Health System, and President, Beaumont Health System-Troy
Kathleen Van Wagoner, MSN, RN, MSA, is a consultant with Creative Health Care Management
Christine Zambricki, RN, FAAN, is the Chief Executive Officer of America's Blood Centers

Accreditation and Program Review

The Oakland University (OU) School of Nursing (SON) undergraduate program is fully accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, (202) 887-6791 and is approved by the Michigan State Board of Nursing. The BSN Degree Completion Sequence is fully accredited as an online program by the Higher Learning Commission of the North Central Association.

Programs Offered

The School of Nursing offers programs of study leading to the Bachelor of Science in Nursing (BSN) degree, Master of Science in Nursing (MSN) degree, and a Doctor of Nursing Practice (DNP) degree. The undergraduate program curriculum builds on a foundation of the arts, sciences, and humanities. Graduates of the undergraduate program pre-licensure tracks (Basic-BSN and Accelerated Second Degree BSN) are eligible to take the NCLEX-RN licensure examination. The undergraduate program prepares students for graduate study in nursing.

School of Nursing Mission

The mission of the OU School of Nursing is to prepare transformational leaders committed to caring and using the best evidence in nursing practice, education and research to optimize the health of the public in a diverse ever-changing global society.

School of Nursing Vision Statement

The faculty and graduates of the OU School of Nursing will be recognized as transformational leaders, caring practitioners and scholars who optimize the health and well-being of a diverse global society.

Baccalaureate Program Curriculum Outcomes

The BSN Program Curriculum is based on professional forces; the vision, mission, and values of the faculty; prepares the graduate to practice in a diverse global society; and to:

1. Apply concepts from the Arts and Sciences in the promotion of health and the management of simple to complex nursing care.
2. Demonstrate use of the nursing process in clinical decision-making.
3. Apply principles of patient safety and quality improvement in nursing practice.
4. Apply principles of wellness, health promotion, disease prevention, rehabilitation, risk reduction, palliative and end-of-life care to individuals, families, communities, and populations.
5. Demonstrate values-based, ethical professional behaviors that integrate caring, autonomy, integrity, social justice, respect for diversity and human dignity throughout the lifespan.
6. Use best-evidence in nursing practice.
7. Demonstrate inter/intra-professional collaboration to optimize health outcomes.
8. Demonstrate transformational leadership in nursing practice in a variety of settings.
9. Use knowledge, processes, and skills from informatics to inform clinical decision-making.
10. Apply knowledge of health policy, economics, legal, and political principles to nursing practice.
11. Demonstrate a commitment to professional development and lifelong learning.

Undergraduate Program Policies and Procedures

Once a student has been admitted to the SON undergraduate program, he/she should consult the SON Undergraduate Program Student Handbook for information regarding program policies and procedures (refer to SON website).

Academic Advising

The SON Academic Advising Office is located in 3027 Human Health Building, (248) 370-4253. All newly admitted pre-licensure students (Basic-BSN and ASD) must attend a mandatory orientation. Students will register for courses after they attend orientation. Students are encouraged to meet regularly with their academic adviser to discuss academic issues or concerns. Each SON undergraduate student will receive a plan of study from his/her academic adviser that is specific to the track in which he/she is enrolled.

Transfer Students

Once a student is admitted to the SON undergraduate program, he/she is expected to complete all nursing course work required for the BSN degree at OU. Grades for courses from other academic institutions that transfer in to OU do not appear on the OU transcript. However, for purposes of admission to the SON, grades for pre-requisite courses that were taken at another institution are used to calculate the pre-nursing GPA. Letter grades are converted as follows: A = 4.0, A- = 3.7, B+ = 3.3, B = 3.0.

Students who transfer majors within Oakland University will be allowed to substitute BIO 121 with the combination of BIO 205, 206, and 207 (or equivalent), CHM 144 and 147 (or equivalent), CHM 201 with CHM 234 (or equivalent), and BIO 307 with BIO 319 or (equivalent).

Clinical Health Requirements for Pre-Licensure (Basic-BSN and ASD) Students

A student's ability to start and/or remain in the pre-licensure (Basic-BSN and ASD) nursing curricula is contingent upon successful completion of all of the SON clinical health requirements. Newly admitted pre-licensure students who do not submit the required clinical health documentation by the published due date will forfeit their seat and will need to re-apply. Continuing students who do not submit the required clinical health documentation by the published due date will not be allowed to enroll in any clinical nursing courses and the corresponding didactic course(s), and their progression in the nursing curriculum may be delayed. The SON clinical health requirements are available on the SON website. In addition, a criminal background check and a urine drug screen are required

for admission to the SON. A positive criminal background check and/or drug screen may prevent admission to the SON. Students are responsible for all costs associated with the SON clinical health requirements. Students are encouraged to maintain their own health insurance. Please note that payment for injury or illness that occurs while in the nursing program will be the responsibility of the student.

Clinical Placements

The SON provides students with a range of clinical experiences with diverse populations, organizations, and agencies. The SON's clinical partners are located in urban and suburban settings throughout metropolitan Detroit and southeastern Michigan. Each student is responsible for providing his/her own transportation to all clinical experiences.

Leave of Absence

Students can request a leave of absence (LOA) in the SON for personal or academic reasons for a total of 12 months. A student's return from a LOA is contingent upon availability of space. Students who return from LOA must comply with all SON policies in effect at the time they return and their clinical health requirements must be current with the SON.

Withdrawal

Students can request to withdraw from the SON for personal or academic reasons. A student who wishes to withdraw from the SON should contact his/her academic adviser.

School of Nursing Core Performance Standards

All students in the School of Nursing undergraduate program must be able to demonstrate the following competencies during the entire academic program:

Critical Thinking: Inductive/deductive reasoning sufficient for clinical judgment and decision making.

Interpersonal: Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, spiritual and intellectual backgrounds.

Emotional Stability: Emotional stability sufficient to assume responsibility/accountability for actions.

Communication: Communication abilities sufficient for interaction with others in verbal and written form.

Motor Skills: Gross and fine motor abilities sufficient to provide safe and effective nursing care.

Mobility: Physical abilities sufficient to move from place to place and maneuver in small places.

Visual: Visual ability sufficient to provide safe and effective nursing care.

Hearing: Auditory ability sufficient to provide safe and effective nursing care.

Tactile: Tactile ability sufficient for assessment and implementation of care.

Health: Characteristics that would not compromise health and safety of clients.

Student Nursing Organizations

Sigma Theta Tau International -Theta Psi Chapter (STT)
The OU chapter of Sigma Theta Tau International, Theta Psi, was chartered in April 1986. Each year SON students who are eligible are invited to become members of this international nursing honor society. Candidates for membership are selected on the basis of superior scholastic achievement.

Student Nurses Association of Oakland University (SNAOU)
Nursing students are eligible for and encouraged to become members of the SNAOU. This organization provides undergraduate nursing students the opportunity to interact with other nursing students, engage in professional nursing activities, and network with SON faculty and administrators.

Black Student Nurses Association (BSNA)
The purpose of this organization is to give SON undergraduate students an opportunity to promote unity among minorities and other students by providing a support network for pre-nursing and current nursing students. BSNA allows members to increase their professional networking skills and help educate and inform the community about health issues that affect minorities.

Qualification for Registered Nurse Licensure
Registered Nurse licensure is granted by the State of Michigan. Requirements for licensure include successful completion of a state-approved nursing educational program and satisfactory performance on the National Council of State Boards of Nursing Licensing Examination for Registered Nurses (NCLEX-RN). Licensure in one state entitles a qualified holder to seek licensure by endorsement in another state.

Requirements for the Bachelor of Science in Nursing Degree

To earn the Bachelor of Science in Nursing (BSN) degree, students must complete a minimum of 125 credits and meet the following requirements:

1. Satisfy the Oakland University general education requirements.
2. Complete all requirements identified in the School of Nursing undergraduate program plan of study.
3. Complete at least 32 credits in courses at or above the 300-level.
4. All pre-licensure students

All pre-licensure students (Basic-BSN and ASD) in the SON must satisfy the SON Medication Administration Examination requirement and take the ATI Comprehensive Predictor Exam and achieve an 89% on the "Predicted Probability of Passing NCLEX-RN on the first attempt" (not the "Adjusted Individual Total Score") in order to graduate. Pre-licensure students who do not achieve the benchmark score on the ATI Comprehensive Predictor Exam will be given mandatory remediation activities, re-tested with a different version of the examination, and will not graduate until they achieve the required benchmark score of 89% on the "Predicted Probability of Passing NCLEX-RN on the first attempt". Re-testing will continue until students achieve a score of 89% on the "Predicted Probability" of Passing NCLEX-RN.

Plan of Study for the Basic-BSN Track (Direct Admission)

Direct Admission to the SON undergraduate program Basic-BSN track is for high-achieving high school students. Direct Admission students are required to attend OU full-time. During their first year at OU, Direct Admission students take all of the Basic-BSN prerequisite courses.

High school students who wish to be considered for the SON undergraduate program Basic-BSN track by Direct Admission must satisfy the following requirements:

1. A high school grade point average (GPA) of 3.5 or higher following the Junior year (after six academic semesters);
2. An ACT English score of 24 or higher or SAT equivalent;
3. An ACT Math score of 24 or higher or SAT equivalent;
4. An ACT Reading score of 24 or higher;
5. An ACT Science score of 24 or higher; and
6. At least two academic semesters of high school Biology and Chemistry completed prior to the senior year with a final course grade of B or higher.
7. Students must apply for admission by November 15 of their senior year at Oakland.edu/apply.

Completion of the minimum requirements does not guarantee acceptance to the SON as a Basic-BSN Direct Admission student.

In order to retain your seat in the Direct Admit Basic-BSN track, students must meet the minimum grade requirements for admission to the School of Nursing and must earn a final course grade in NRS 206 of 2.5 or higher. Any Direct Admission student who does not successfully complete all of the first year academic requirements will forfeit his/her seat. Students who forfeit their Direct Admission seat will need to re-apply to the SON Basic-BSN track on a competitive basis following successful completion of the Basic-BSN admission requirements.

Students admitted to the Basic-BSN track by direct admission will follow the plan of study shown below:

Freshman

Fall

- ** BIO 111 - Biology I (4)
- ** CHM 104 - Introduction to Chemical Principles (4)
- ** PSY 100 - Introduction to Psychology (4)
- WRT 150 - Composition I (4)

Winter

- **BIO 121 - Clinical Anatomy and Physiology (5)
- **CHM 201 - Introduction to Organic and Biological Chemistry (4)
- NRS 206 - Introduction to Professional Nursing Practice (2)
- WRT 160 - Composition II (4)

Summer

- PSY 225 - Introduction to Life-Span Developmental Psychology (4) (This course must be taken prior to Sophomore 1 Semester).
- General Education (4) (optional - may be taken later)

Sophomore

Fall

- NRS 207 - Nursing Therapeutics I (1)
- NRS 208/209 - Health Assessment/Lab (3/1))
- NRS 213 - Basic Clinical Competencies I (1)
- NRS 216 - Health Promotion I (3)
- NRS 252 - Scientific Foundations of Professional Nursing Practice (2)
- PHL 101, PHL 102, PHL 103, PHL 107 (4)

Winter

- NRS 210 - Nursing Therapeutics II (2)
- NRS 221 - Nursing Informatics (2)
- NRS 227 - Pathophysiology (3)
- NRS 302 - Health Promotion II (3)
- NRS 303 - Basic Clinical Competencies II (2)
- BIO 307 - Introduction to Human Microbiology (4)

(This course may be taken SU following freshman year.)

Junior

Fall

- NRS 308 - Pharmacology in Nursing (3)
- NRS 329 - Nursing Care of Adults (3)
- NRS 336 - Nursing Care of Adults: Clinical (2)
- NRS 452 - Research Basis of Nursing Practice (3)
- General Education (4)

Winter

- NRS 337 - Nursing Care of Children: Clinical (2)
- NRS 338 - Nursing Care of the Childbearing Family: Clinical (2)
- NRS 339 - Nursing Care of Children (3)
- NRS 349 - Nursing Care of Childbearing Family (3)
- NRS 354 - Nursing Leadership and Health Care Issues (2)

Senior

Fall

- NRS 428 - Community Nursing (3)
- NRS 470 - Nursing Care of Adults with Co-morbidities (3)
- NRS 471 - Nursing Care of Adults with Co-morbidities: Clinical (2)
- NRS 477 - Nursing Care of Adults with Psychobiological Conditions: Clinical (2)
- General Education (4)

Winter

- NRS 472/473 - Nursing Synthesis/Clinical (1/5)
- General Education (4)
- General Education (4)

125 total credits

Note

**Courses used in the calculation of the grade point average used to determine progression to the sophomore year.

GENERAL EDUCATION: Students choose one approved course from each of the following categories: Arts; Literature; Foreign Language and Culture; Western Civilization; Global Perspective; Social Science; Natural Science and Technology; Formal Reasoning, Knowledge Applications; Capstone; General Education Writing Intensive; Writing Intensive in the Major; U.S. Diversity. Students are encouraged to consult with your academic adviser for assistance selecting and scheduling general education courses and in particular the course selected to fulfill the Writing Intensive in the General Education within their academic schedule. In many instances, you may select one course to fulfill more than one degree requirement. **The School of Nursing and Oakland University reserve the right to revise all information contained in this publication at its discretion and to make reasonable changes in requirements to improve or upgrade academic and non-academic programs. Classes can be cancelled without**

notice if enrollment does not meet minimum number established for undergraduate courses. All data in this document reflects information as it was available at the publication date.

Plan of Study for the Basic-BSN Track (Competitive Admission)

Students who wish to apply to the undergraduate program Basic BSN track on a competitive basis must first satisfy the following minimum requirements:

1. Complete BIO 111, BIO 121; CHM 104, CHM 201, and PSY 100 with a minimum grade of 2.8 in each course and a minimum overall GPA of 3.2.
2. Complete one philosophy course (PHL 101, PHL 102, PHL 103, PHL 107,PHL 204, PHL 205, or PHL 206 are recommended) with a minimum grade of 2.8.
3. Complete WRT 160 with a minimum grade of 2.8.
4. Complete MTH 061 with a minimum grade of 3.2. (The MTH requirement is waived for students who receive a score of 18 or higher on the mathematics subsection of the American College Test (ACT) or SAT equivalent, who have taken an Oakland University placement test and placed into MTH 062 or higher, or who succesfully completed a higher MTH course with a final course grade of 2.0 or higher)

Completion of the minimum requirements does not guarantee admission to the Basic-BSN track.

Applicants to the SON undergraduate program must be in good academic standing in the university. Additional consideration is given to applicants who complete five or more of the required pre-requisite courses (excluding MTH 061) at Oakland University. Basic-BSN pre-requisite courses that are satisfied by Advanced Placement (AP) or International Baccaulauerate (IB) courses will count as courses taken at Oakland University. Please refer to the Oakland University AP and IB policies for approved equivalents (oakland.edu/appolicies). Lastly, applicants who have been dismissed from a nursing program or who have ever received two (or more) grades in nursing courses below 2.5 must submit a statement of explanation that includes their current status as a nursing student at the other nursing program before they will be considered for admission to the SON Basic-BSN track.

Students admitted to the Basic-BSN track (direct admit or competitive admission) will follow the plan of study shown below:

Pre-nursing Semester 1 - 16 credits

- BIO 111 - Biology I (4)
- CHM 104 - Introduction to Chemical Principles (4)
- PSY 100 - Introduction to Psychology (4)
- WRT 150 - Composition I (4)

Pre-nursing Semester 2 - 17 credits

- BIO 121 - Clinical Anatomy and Physiology (5)
- CHM 201 - Introduction to Organic and Biological Chemistry (4)
- WRT 160 - Composition II (4)
- (Select one) PHL 101, PHL 102, PHL 103, PHL 107, PHL 204, PHL 205, PHL 206 (4)

Nursing Semester 1 - 17 credits

- NRS 206 - Introduction to Professional Nursing Practice (2)
- NRS 207 - Nursing Therapeutics I (1)
- NRS 208 - Health Assessment (3)
- NRS 209 - Health Assessment Laboratory (1)
- NRS 213 - Basic Clinical Competencies I (1)
- NRS 216 - Health Promotion I (3)
- NRS 252 - Scientific Foundations of Professional Nursing Practice (2)
- PSY 225 - Introduction to Life-Span Developmental Psychology (4)

Nursing Semester 2 - 16 credits

- NRS 210 - Nursing Therapeutics II (2)
- NRS 221 - Nursing Informatics (2)
- NRS 227 - Pathophysiology (3)
- NRS 302 - Health Promotion II (3)
- NRS 303 - Basic Clinical Competencies II (2)
- ** BIO 307 - Introduction to Human Microbiology (4)

Nursing Semester 3 - 15 credits

- NRS 308 - Pharmacology in Nursing (3)
- NRS 329 - Nursing Care of Adults (3)
- NRS 336 - Nursing Care of Adults: Clinical (2)
- NRS 452 - Research Basis of Nursing Practice (3)
- General Education (4)

Nursing Semester 4 - 16 credits

- NRS 337 - Nursing Care of Children: Clinical (2)
- NRS 338 - Nursing Care of the Childbearing Family: Clinical (2)
- NRS 339 - Nursing Care of Children (3)
- NRS 349 - Nursing Care of Childbearing Family (3)
- NRS 354 - Nursing Leadership and Health Care Issues (2)
- General Education (4)

Nursing Semester 5 - 14 credits

- NRS 428 - Community Nursing (3)
- NRS 470 - Nursing Care of Adults with Co-morbidities (3)
- NRS 471 - Nursing Care of Adults with Co-morbidities: Clinical (2)
- NRS 477 - Nursing Care of Adults with Psychobiological Conditions: Clinical (2)
- General Education (4)

Nursing Semester 6 - 14 credits

- NRS 472 - Nursing Synthesis (1)
- NRS 473 - Nursing Synthesis: Clinical (5)
- General Education (4)
- General Education (4)

125 total credits

Note
***PSY 225 may be taken prior to or during Nursing Semester 1.**

****BIO 307 may be taken prior to or during Nursing Semester 2.**

General education courses may be taken in any semester throughout the nursing curriculum. Students are encouraged to consult with an academic adviser for assistance in selecting and scheduling general education courses. In some instances, students may select one course to fulfill more than one degree requirement.

Plan of study for the accelerated second degree BSN track

Students who wish to apply to the undergraduate program Accelerated Second Degree (ASD) BSN track are first required to apply to OU as a pre-accelerated second degree student. Following admission to OU as a pre-accelerated second degree student, the following minimum requirements (items 1-4) must be satisfied before students may apply to the ASD track:

1. Adhere to the Oakland University undergraduate admission requirements for a second degree student.
2. Complete BIO 111, BIO 121; CHM 104, CHM 201, and PSY 100 with a minimum grade of 2.8 in each course and a minimum overall GPA of 3.2.
3. Complete one philosophy course (PHL 101, PHL 102, PHL 103, PHL 107, PHL 204, PHL 205, or PHL 206 are recommended) with a minimum grade of 2.8.
4. Complete MTH 061 with a minimum grade of 3.2. (The MTH requirement is waived for students who receive a score of 18 or higher on the mathematics subsection of the American College Test (ACT) or SAT equivalent, who have taken an Oakland University placement test and placed into MTH 062 or higher, or who succesfully completed a higher MTH course with a final course grade of 2.0 or higher)

When students satisfy items 1-4, they may apply to the SON for admission to the ASD track. Applicants who have been dismissed from a nursing program or who have ever received two (or more) grades in nursing courses below 2.5 must submit a statement of explanation that includes their current status as a nursing student at the other nursing program before they will be considered for admission to the SON.

Completion of the minimum requirements does not guarantee admission to the accelerated second degree BSN track.

Students are conditionally admitted to the ASD track with full admission pending successful completion of items 5-7. Conditionally admitted pre-ASD students must attain a final course grade of 2.5 or higher on the first attempt in NRS 221, NRS 227, NRS 308, PSY 225, and BIO 307. If the final course grade in any of these courses is less than 2.5, admission to the ASD track is forfeited, and the student is not eligible to re-apply to the SON ASD track. The student may apply to the SON Basic-BSN track on a competitive basis, but if admitted, he/she will enter the SON on probation

5. PSY 225 and BIO 307 with a grade of 2.5 or higher on the first attempt.
6. NRS 221, NRS 227, and NRS 308 with a grade of 2.5 or higher on the first attempt.
7. Satisfy OU general education requirements, if necessary.

Students admitted to the Accelerated Second Degree BSN track will follow the plan of study shown below:

Semester 1 - 17 credits

- NRS 280 - Introduction to Professional Nursing Practice (4)
- NRS 281 - Nursing Practice Concepts Lab (2)
- NRS 282 - Health Assessment Across the Life Span (3)
- NRS 283 - Health Assessment Across the Life Span Lab (1)
- NRS 286 - Basic Clinical Competencies (2)
- NRS 380 - Comprehensive Adult Nursing I (3)
- NRS 381 - Comprehensive Adult Nursing I: Clinical (2)

Semester 2 - 18 credits

- NRS 382 - Nursing Care of the Childbearing Family (3)
- NRS 383 - Nursing Care of the Childbearing Family: Clinical (2)
- NRS 384 - Nursing Care of Children (3)
- NRS 385 - Nursing Care of Children: Clinical (2)
- NRS 452 - Research Basis of Nursing Practice (3)
- NRS 480 - Comprehensive Adult Nursing II (3)
- NRS 481 - Comprehensive Adult Nursing II Clinical (2)

Semester 3 - 15 credits

- NRS 386 - Mental Health Nursing (4)
- NRS 428 - Community Nursing (3)
- NRS 484 - Nursing Leadership and Health Care Issues (2)
- NRS 485 - Nursing Synthesis Clinical (5)
- NRS 486 - Nursing Synthesis (1)

50 total credits

Plan of study for BSN degree completion sequence for registered nurses

The School of Nursing offers a BSN degree completion sequence for registered nurses with an Associate Degree (ADN) and who possess a valid and unrestricted RN license. A cumulative GPA of 2.5 or higher from the student's ADN program is required for admission to the BSN degree completion sequence.

Semester 1 - 6 credits

- NRS 221 - Nursing Informatics (2)
- NRS 310 - Transition to Baccalaureate Nursing Education (4)

Semester 2 - 7 credits

- NRS 340 - Health Promotion in the Community (4)
  and
- NRS 452 - Research Basis of Nursing Practice (3)

Semester 3 - 7 credits

- NRS 355 - Nursing Leadership and Health Care Issues (3)
  and
- NRS 450 - Nursing Care of Populations with Health Disparities (4)

Semester 4 - 8 credits

- NRS 426 - Community Nursing (4)
  and
- NRS 474 - Nursing Synthesis (4)

Semester 5 - 4 credits

- NRS 475 - Nursing Capstone Experience (4)

For all BSN degree completion students, 19 nursing competency credits will be granted.

Registration for competency credits (NRS 399P). Students receive credit toward graduation designated as competency credit (graded S/U) on their transcripts for Oakland University courses and are required to pay the appropriate charges.

Graduates from a regionally accredited associate degree nursing program may transfer a maximum of 13 nursing credits and 50 credits applied toward required non-nursing and general education course categories.

Graduates from an accredited nursing diploma program will be granted the equivalent of 32 nursing credits through a course competency process. This process includes:

Registration for competency credits (NRS 299P and NRS 399P). Students receive credit toward graduation designated as competency credit (graded S/U) on their transcripts for Oakland University courses and are required to pay the appropriate charges.

32 total credits

Course Descriptions

The department offers selected courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in the Schedule of Classes.

NURSING

NRS 010 - Mathematics of Medication Administration 1 (1)
This remedial course focuses on the use of mathematics associated with safe medication calculation and administration in clinical nursing practice.

NRS 206 - Introduction to Professional Nursing Practice (2)
This course introduces students to concepts related to professional nursing practice, including professional values and therapeutic communication.
Prerequisite(s): admission to the School of Nursing.

NRS 207 - Nursing Therapeutics I (1)
This course involves theory and application in the laboratory setting of basic theoretical principles and therapeutic interventions used in professional nursing practice.
Prerequisite(s): admission to the School of Nursing.

NRS 208 - Health Assessment (3)
This course focuses on the role of the professional nurse in performing a holistic health assessment/physical examination and use of effective therapeutic communication with individuals across the lifespan.
Prerequisite(s) or corequisite(s): PSY 225, NRS 206.
Corequisite(s): NRS 209.

NRS 209 - Health Assessment Laboratory (1)
This course involves application in the laboratory setting of principles related to health assessment.
Prerequisite(s): admission to the School of Nursing.
Corequisite(s): NRS 208.

NRS 210 - Nursing Therapeutics II (2)
This course builds on the concepts taught in NRS 207 and involves theory and application in the laboratory setting of basic theoretical principles and therapeutic interventions used in professional nursing practice.
Prerequisite(s): NRS 206, 207, 208, 209, 213, 216, 252
Corequisite(s): NRS 302, 303.
Pre/Corequisite(s): NRS 221, 227.

NRS 213 - Basic Clinical Competencies I (1)
This course involves application of basic theoretical principles and therapeutic nursing interventions in clinical settings appropriate to preschool aged children to adolescents.
Prerequisite(s): or Corequisite(s): PSY 225, NRS 206, NRS 207, NRS 208, NRS 209, NRS 216, and NRS 252.

NRS 216 - Health Promotion I (3)
This course explores wellness and health promotion from a nursing perspective during prenatal through adolescence. Corequisite(s): NRS 213

NRS 221 - Nursing Informatics (2)
This course introduces students to basic healthcare informatics' topics, tools, and techniques and provides students with the foundational knowledge needed to use information management and patient care technologies to deliver safe and effective care.
Prerequisite(s): Basic-BSN and Accelerated Second Degree = NRS 227, BSN Degree Completion sequence: WRT 160. BSN Degree Completion sequence:
Pre/Corequisite(s): Prerequisites or corequisites: NRS 310.

NRS 227 – Pathophysiology (3)
This course explores biological and physiological deviations that can occur throughout the lifespan.
Prerequisite(s): or Corequisite(s): BIO 307

NRS 228 - Pediatric Pathophysiology (1)
This course explores biological and physiological deviations that occur in the pediatric population. It is designed to supplement a NRS 227 equivalent course that does not include pediatric content.

NRS 252 - Scientific Foundations of Professional Nursing Practice (2)
The course introduces students to the scientific foundations of professional nursing practice, including use of the nursing process. Prerequisite(s) or Corequisite(s): NRS 206 and PSY 225. Corequisite(s): NRS 207, NRS 208, NRS 209, NRS 213, NRS 216.

NRS 260 - Topics in Nursing (1 to 12)
Presents special topics or areas of nursing that students may wish to develop. Clinical experiences in a health care facility may be required.
Prerequisite(s): admission to the School of Nursing or permission of instructor.

NRS 280 - Introduction to Professional Nursing Practice (4)
This course introduces students to the scientific basis of nursing and the application of the nursing process. This course is reserved for students admitted to the ASD track.
Prerequisite(s): admission to the School of Nursing.
Corequisite(s): NRS 281.

NRS 281 - Nursing Practice Concepts Lab (2)
This course involves theory and application in the laboratory setting of basic theoretical principles and therapeutic interventions used in professional nursing practice. This course is reserved for students admitted to the ASD track.
Corequisite(s): NRS 280.

NRS 282 - Health Assessment Across the Life Span (3)
This course focuses on the role of the professional nurse in performing a holistic health assessment/physical examination and use of effective therapeutic communication with individuals across the lifespan.
Corequisite(s): NRS 283.

NRS 283 - Health Assessment Across the Life Span Lab (1)
This course involves application in the laboratory setting of principles related to health assessment. This course is reserved for students admitted to the ASD track.
Prerequisite(s): Admission to the School of Nursing. Corequisite(s): NRS 282.

NRS 286 - Basic Clinical Competencies (2)
This course involves the clinical application of basic nursing theory and nursing interventions to the care of adults and older adults in the acute care setting. This course is reserved for students admitted to the ASD track. Students are required to successfully complete NRS 281, 282, and 283 in the first seven weeks of the semester to progress to NRS 286 in the second seven weeks of the semester.
Corequisite(s): NRS 380.

NRS 302 - Health Promotion II (3)
This course explores wellness and health promotion from a nursing perspective for adults and the elderly. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): NRS 206, 207, 208, 209, 213, 216, 252.
Corequisite(s): NRS 303.
Pre/Corequisite(s): NRS 221, 227.

NRS 303 - Basic Clinical Competencies II (2)
This course involves application of basic theoretical principles and therapeutic nursing interventions in clinical settings appropriate to adults and the elderly.
Prerequisite(s): NRS 206, 207, 208, 209, 213, 216, 252.
Corequisite(s): NRS 302.
Pre/Corequisite(s): NRS 221, 227.

NRS 304 - Human Sexuality (4)
This course will apply knowledge from the natural and social sciences to address issues, concerns, varying perspectives, and phenomena associated with human sexuality. Satisfies the university general education requirement in the knowledge application integration area and in U.S. diversity. Prerequisite for knowledge application: completion of the general education requirement in the natural science and technology or social science knowledge exploration areas, not both.
Prerequisite(s): Students completing other general education core courses may take this course with permission of the instructor.

NRS 308 - Pharmacology in Nursing (3)
This course explores pharmacological interventions and their rationale for professional nursing practice.
Prerequisite(s): NRS 227.

NRS 310 - Transition to Baccalaureate Nursing Education Ed (4)
This course focuses on the transition to baccalaureate nursing education for the registered nurse. Prerequisite(s): WRT 160. Prerequisite(s)/Corequisite(s): NRS 221.

NRS 329 - Nursing Care of Adults (3)
This course integrates theory, research, and specific nursing interventions for ill adults and older adults, and their families.
Prerequisite(s): NRS 210, NRS 221, NRS 227, NRS 302, NRS 303, BIO 307
Pre/Corequisite(s): NRS 308
Corequisite(s): NRS 336

NRS 336 - Nursing Care of Adults: Clinical (2)
This course involves the clinical application of theory, research, and specific nursing interventions with a focus on adults and older adults, and their families. Prerequisite(s): BIO 307, NRS 210, NRS 221, NRS 227, NRS 302, NRS 303. Prerequisite/corequisite: NRS 308. Corequisite(s): 329.

NRS 337 - Nursing Care of Children: Clinical (2)
This course involves the clinical application of theory, research, and specific nursing interventions with a focus on children and adolescents.
Prerequisite(s): NRS 308, NRS 329, NRS 336 and NRS 452.
Corequisite(s): NRS 339.

NRS 338 - Nursing Care of the Childbearing Family: Clinical (2)
This course involves the clinical application of theory, research, and specific nursing interventions with a focus on the childbearing family.
Prerequisite(s): NRS 308, NRS 329, NRS 336 and NRS 452.
Corequisite(s): NRS 349.

NRS 339 - Nursing Care of Children (3)
This course integrates theory, research, and specific nursing interventions with a focus on children and adolescents.
Prerequisite(s): NRS 308, NRS 329, NRS 336, NRS 452.
Corequisite(s): NRS 337.

NRS 340 - Health Promotion in the Community (4)
This course focuses on the development of nursing interventions for health promotion with diverse client populations across the lifespan. This course is reserved for students admitted to the BSN degree completion sequence.
Prerequisite(s): NRS 221, NRS 310.
Corequisite(s): NRS 452.

NRS 349 - Nursing Care of Childbearing Family (3)
This course integrates theory, research, and specific nursing interventions with a focus on the childbearing family.
Prerequisite(s): NRS 308, NRS 329, NRS 336, and NRS 452
Corequisite(s): NRS 338

NRS 354 - Nursing Leadership and Health Care Issues (2)
This course presents the principles of nursing leadership and management, health policy, and legal and ethical issues in professional nursing practice.
Prerequisite(s): NRS 308, NRS 329, NRS 336, and NRS 452

NRS 355 - Nursing Leadership and Health Care Issues (3)
This course presents the principles of nursing leadership and management, health policy, and legal and ethical issues in professional nursing practice. This course is reserved for students admitted to the BSN completion sequence.
Prerequisite(s): NRS 340, NRS 452.
Corequisite(s): NRS 450.

NRS 360 - Topics in Nursing (1 to 2)
Presents special topics or areas of nursing students may wish to study. Course may be repeated for additional credit when offered as a different topic.
Prerequisite(s): admission to the School of Nursing or permission of instructor

NRS 361 - Global Health (2)
This course provides a basic level perspective of global health issues and policies. Geographical regions and current world events are used to provide students with examples of complex issues such as infections, diseases, nutrition, and environmental health. Life span health issues are analyzed from a global perspective.
Prerequisite(s): NRS 227

NRS 380 - Comprehensive Adult Nursing I (3)
This course integrates theory, research, and specific nursing interventions for nursing care of adults and older adults and their families. This course is reserved for students admitted to the ASD track. Students are required to successfully complete NRS 281, 282, and 283 in the first seven weeks of the semester to progress to NRS 286 in the second seven weeks of the semester. Corequisite(s): NRS 286.

NRS 381 - Comprehensive Adult Nursing I: Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on adults and older adults, and their families. This course is reserved for students admitted to the ASD track. Students are required to successfully complete NRS 281, 282, and 283 in the first seven weeks of the semester to progress to NRS 286/381 in the second seven weeks of the semester.
Corequisite(s): NRS 380

NRS 382 - Nursing Care of the Childbearing Family (3)
This course integrates theory, research, and specific nursing interventions for nursing care of childbearing families. This course is reserved for students admitted to the ASD track.
Prerequisite(s): NRS 280, NRS 380, NRS 381
Corequisite(s): NRS 383, NRS 384

NRS 383 - Nursing Care of the Childbearing Family: Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on the childbearing family. This course is reserved for students admitted to the ASD track. Prerequisite(s): NRS 280, NRS 380, NRS 381. Corequisite(s): NRS 382.

NRS 384 - Nursing Care of Children (3)
This course integrates theory, research, and specific nursing interventions for nursing care of children and adolescents, and their families. This course is reserved for students admitted to the ASD track. Prerequisite(s): NRS 280, NRS 380, NRS 381. Corequisite(s): NRS 385.

NRS 385 - Nursing Care of Children: Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on children and adolescents. This course is reserved for students admitted to the ASD track.
Prerequisite(s): NRS 280, NRS 380, NRS 381
Corequisite(s): NRS 384

NRS 386 - Mental Health Nursing (4)
This course focuses on developing competencies for practice in mental health nursing. One credit will be the application of mental health nursing concepts utilizing a variety of clinical practice sites and experiences. This course is reserved for students admitted to the ASD track. Prerequisite(s): NRS 480, NRS 481, NRS 452.
Corequisite(s): NRS 428, NRS 484, NRS 485, NRS 486

NRS 426 - Community Nursing (4)
This course focuses on the professional nurse's role in the community. This course is reserved for students admitted to the BSN degree completion sequence.
Prerequisite(s): NRS 355, NRS 450.
Corequisite(s): NRS 474.

NRS 428 - Community Nursing (3)
This course focuses on the professional nurse's role in the community. This course is reserved for students admitted to the ASD and the Basic-BSN tracks.
Prerequisite(s): Basic-BSN: NRS 337, NRS 338, NRS 339, NRS 349, NRS 354
Pre/Corequisite(s): Basic-BSN: NRS 470, NRS 471, NRS 477
Prerequisite(s): ASD: NRS 480, NRS 481, NRS 452
Pre/Corequisite(s): ASD: NRS 386, NRS 484, NRS 485, NRS 486

NRS 450 - Nursing Care of Populations with Health Disparities (4)
This course focuses on the provision of professional nursing care to patient populations across the lifespan with health disparities. This course is reserved for students admitted to the BSN degree completion sequence. Satisfies the university general education requirement in U.S. diversity.
Prerequisite(s): NRS 340, NRS 452
Corequisite(s): NRS 355

NRS 452 - Research Basis of Nursing Practice (3)
This course focuses on the research process and evidence-based practice as they relate to professional nursing. Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.
Prerequisite(s): Basic-BSN, NRS 252; ASD, NRS 280, NRS 380, NRS 381
BSN degree completion sequence NRS 221, NRS 310
Prerequisite/corequisite(s): NRS 340

NRS 460 - Topics in Nursing (1 to 12)
Provides comprehensive theoretical nursing content related to a specialty area, e.g., critical care, maternity, etc. Clinical experience in a health care facility may be required.
Prerequisite(s): admission to the School of Nursing.

NRS 470 - Nursing Care of Adults with Co-morbidities (3)
This course integrates theory, rationale, and specific nursing interventions for adults and older adults with chronic and complex health conditions. The focus will be on both physiological and psychobiological conditions.
Prerequisite(s): NRS 337, 338, 339, 349, 354
Corequisite(s): NRS 471, 477

NRS 471 - Nursing Care of Adults with Co-morbidities: Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on adults and older adults with chronic and complex health conditions.
Prerequisite(s): NRS 337, 338, 339, 349, 354
Corequisite(s): NRS 470

NRS 472 - Nursing Synthesis (1)
This course analyzes issues impacting health care delivery and professional nursing practice.
Prerequisite(s): NRS 428, 470, 471, 477
Corequisite(s): NRS 473

NRS 473 - Nursing Synthesis: Clinical (5)
This course is the capstone clinical experience for the Basic-BSN curriculum. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): NRS 428, 470, 471, 477
Corequisite(s): NRS 472

NRS 474 - Nursing Synthesis (4)
This course analyzes issues impacting health care delivery and professional nursing practice. This course is reserved for students admitted to the BSN degree completion sequence.
Prerequisite(s): NRS 355, 450
Corequisite(s): NRS 426

NRS 475 - Nursing Capstone Experience (4)
This course must be taken in the final semester of degree coursework. This course is reserved for students admitted to the BSN degree completion sequence. Satisfies the university general education requirement for the capstone experience.
Prerequisite(s): NRS 221, 310, 340, 355, 426, 450, 452, 474

NRS 477 - Nursing Care of Adults with Psychobiological Conditions: Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on adults and older adults with psychobiological conditions. Prerequisite(s): NRS 337, NRS 338, NRS 339, NRS 349, NRS 354. Corequisite(s): NRS 470.

NRS 480 - Comprehensive Adult Nursing II (3)
This course integrates theory, rationale, and specific nursing interventions for adults and older adults with chronic and complex health conditions. The focus will be on both physiological and psychobiological conditions. This course is reserved for students admitted to the ASD track. Prerequisite(s): NRS 280, NRS 380, NRS 381. Corequisite(s): NRS 481.

NRS 481 - Comprehensive Adult Nursing II Clinical (2)
This course involves the clinical application of theory, research and specific nursing interventions with a focus on adults and older adults with chronic and complex health conditions. This course is reserved for students admitted to the ASD track.
Prerequisite(s): NRS 280, NRS 380, NRS 381
Corequisite(s): NRS 480

NRS 484 - Nursing Leadership and Health Care Issues (2)
This course presents the principles of nursing leadership and management, health policy, and legal and ethical issues in professional nursing practice. This course is reserved for students admitted to the ASD track.
Prerequisite(s): NRS 480, NRS 481, and NRS 452. Corequisites: NRS 386, NRS 428, NRS 485, and NRS 486.

NRS 485 - Nursing Synthesis Clinical (5)
This course is the capstone clinical experience for the nursing curriculum. This course is reserved for students admitted to the ASD track.
Prerequisite(s): NRS 480, NRS 481, and NRS 452
Corequisite(s): NRS 386, NRS 428, NRS 484

NRS 486 - Nursing Synthesis (1)
This course analyzes issues impacting health care delivery and professional nursing practice. This course is reserved for students admitted to the ASD track. Prerequisite(s): NRS 480, NRS 481, and NRS 452. Corequisite(s): NRS 386, NRS 428, NRS 484, and NRS 485.

NRS 490 - Independent Study (1 to 12)
This course engages students in individual research, directed readings, or group study under the supervision of a faculty member.
Prerequisite(s): admission to the School of Nursing.

NRS 491 - Perioperative Nursing Didactic Content (1)
This course explores the basic concepts of nursing within the Preoperative, Intraoperative and Postoperative surgical areas. Content areas will be pertinent for students who desire to work in the surgical setting after graduation. Emphasis will be on the circulating role of the registered nurse in the operating room.