OAKLAND UNIVERSITY

2011–2012 UNDERGRADUATE CATALOG

May 2011 Volume LI

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

The academic requirements described in this catalog are in effect fall semester 2011 through summer semester 2018. Undergraduate students admitted to a degree-granting program may use provisions in this catalog to meet requirements within that time frame.

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

As an equal opportunity and affirmative action institution, Oakland University is committed to compliance with federal and state laws prohibiting discrimination, including Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. It is the policy of Oakland University that there shall be no unlawful discrimination against any person on the basis of race, sex, sexual orientation, color, religion, creed, national origin or ancestry, age, height, weight, marital status, handicap, familial status, veteran status or other prohibited factors in employment, admissions, educational programs or activities. Inquiries or complaints should be addressed to: Director, University Diversity & Compliance, 203 Wilson Hall, Oakland University, Rochester, Michigan 48309-4401.

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Academic Advising Index

Students seeking information about specific majors may consult the advising offices of the College or any of the schools, or individual departments. Students who are undecided may consult advisers in the Advising Resource Center, or in the College of Arts and Sciences Advising Office, or in the advising offices of the schools.

Advising Resource Center
121 N. Foundation Hall
(248) 370-3227
Undecided—No Major Program

College of Arts and Sciences
221 Varner Hall
(248) 370-4567
Acting, B.F.A.
Actuarial Science
Anthropology
Applied Statistics
Art History
Biochemistry
Biology
Biology, Secondary Education
Chemistry
Chemistry, Secondary Education
Cinema Studies
Communication
Dance, B.A.
Dance, B.F.A.
East Asian Studies (China or Japan)
Economics, B.A.
Engineering Biology
Engineering Chemistry
Engineering Physics
English
English, Secondary Education
Environmental Science
- Environmental Health
- Environmental Sustainability and Resource Management
French Language and Literature
French, K-12 Education
German Language and Literature
German, K-12 Education
History
History, Secondary Education
International Relations
Japanese Language and Literature
Journalism
Latin American Language/Civilization
Latin American Studies
Liberal Studies
Linguistics
Mathematics
Mathematics, Secondary Education
Medical Physics
Music, B.A.
Music, Performance: Vocal, Instrumental, Piano, B.M.
Music Education, Choral and Instrumental, B.M.
Music Theatre, B.F.A.
Philosophy
Physics
Physics, Secondary Education

Political Science
Pre-Law
Pre-Medicine, Pre-Dentistry, Pre Optometry, Pre-Veterinary Medicine
Psychology
Public Administration and Public Policy
Social Work, B.S.W.
Sociology
Spanish Language and Literature
Spanish, K-12 Education
Studio Art
-Drawing
-Painting
-Photography
-New Media
Studio Art, K-12 Education
Theatre, B.A.
Theatre Design and Technology, B.F.A.
Women and Gender Studies
Writing and Rhetoric
Undecided – Fine Arts, Humanities, Science/Math or Social Science

School of Business Administration
238 Elliott Hall
(248) 370-3285
Accounting
Actuarial Science
Business Economics
Economics
Finance
General Management
Human Resources Management
Management Information Systems
Marketing
Operations Management
Pre-Business
Undecided Business

School of Education and Human Services
363 Pawley Hall
(248) 370-4182 (Teacher Education
430 A/C Pawley Hall
(248) 370-3066 (Human Resource Development)
Elementary Education
Human Resource Development (HRD)
Secondary Education
Undecided -- Education

School of Engineering and Computer Science
159A Dodge Hall
(248) 370-2201
Computer Engineering
Computer Science
Electrical Engineering
Engineering Biology
Engineering Chemistry
Engineering Physics
Industrial and Systems Engineering
Information Technology
Mechanical Engineering
Engineering and Computer Science no preference

School of Health Sciences
317 Hannah Hall
(248) 370-2369
Applied Health Sciences
-Health Information Technology
-Medical Assistant
-Occupational Therapy Assistant
-Physical Therapist Assistant
-Respiratory Therapy
-Surgical Technology
Biomedical Diagnostic and Therapeutic Sciences
- Cytotechnology
- Histotechnology
- Medical Laboratory Sciences
- Nuclear Medicine Technology
- Radiation Therapy
- Radiologic Technology
Health Sciences
- Exercise Science
- Pre Health Professional Studies
- Pre Pharmacy
- Pre Physical Therapy
Occupational Safety and Health
Wellness, Health Promotion, and Injury Prevention
Undecided – Health Sciences

School of Nursing
444 O'Dowd Hall
(248) 370-4253
Pre-Nursing
Nursing BSN
RN-BSN and RN-MSN Degree

School of Nursing (cont'd)
Completion Sequence
For Registered Nurses
Accelerated Second Degree BSN

For More Information

Area code: (248)
Admissions: 370-3360 (undergraduate) 370-3167 (graduate)
Disability support services: 370-3266, 370-3268 (TDD)
Information: 370-2100
International student services: 370-3358, 370-3268 (TDD)
Loans and student employment: 370-2550
(Financial aid office); Scholarships and grants: 370-3360 (new students), 370-2550 (returning students), 370-3167 (graduate students)
Students affairs: 370-4200
Student housing: 370-3570, (Residence halls office)

Oakland University
2011-2012 Academic Calendar

Fall 2011 (September 1-December 17)

New Student Convocation	Wednesday	August 31
Classes begin	7:30 a.m. Thursday	September 1
Labor Day holiday	Monday	September 5
Mid-term evaluation submission deadline	Friday	October 21
Thanksgiving recess begins	10 p.m. Wednesday	November 23
Classes resume	7:30 a.m. Monday	November 28
Classes end	10 p.m. Saturday	December 3
Study day	Sunday	December 4
Exams begin	7:30 a.m. Monday	December 5
Exams end	10 p.m. Saturday	December 10
Grades submission deadline	5 p.m. Monday	December 12
Fall Commencement	Saturday	December 17

Winter 2012 (January 4-April 25)

Classes begin	7:30 a.m. Wednesday	January 4
Martin Luther King, Jr. Day	Monday (Classes suspended)	January 16
Mid-term evaluation submission deadline	Friday	February 17
Winter recess begins	10 p.m. Saturday	February 18
Classes resume	7:30 a.m. Monday	February 27
Classes end	10 p.m. Tuesday	April 17
Study period	Wednesday	April 18
Exams begin	7:30 a.m. Thursday	April 19
Exams end	10 p.m. Wednesday	April 25
Grades submission deadline	5 p.m. Friday	April 27
Spring Commencement	Saturday	April 28

Summer 2012—16 weeks (May 7-August 25)

Classes begin	7:30 a.m. Monday	May 7
Memorial Day holiday	Monday	May 28
Classes resume	7:30 a.m. Tuesday	May 29
Summer recess begins	10 p.m. Saturday	June 23
Classes resume	7:30 a.m. Monday	July 2
Independence Day holiday	Wednesday	July 4
Classes resume	7:30 a.m. Thursday	July 5
Classes end	10 p.m. Saturday	August 18
Final exams	Monday-Saturday	August 20-25
Grades submission deadline	5 p.m. Monday	August 27

Summer 2012—8 weeks (May 7-June 27)

Classes begin	7:30 a.m. Monday	May 7
Memorial Day holiday	Monday	May 28
Classes resume	7:30 a.m. Tuesday	May 29
Classes end	10 p.m. Saturday	June 23
Final exams	Monday-Wednesday	June 25-27
Grades submission deadline	5 p.m. Friday	June 29

Summer 2012—8 weeks (July 27-August 24)

Classes begin	Monday	July 2
Independence Day holiday	Wednesday	July 4
Classes resume	7:30 a.m., Thursday	July 5
Classes end	10 p.m. Saturday	August 18
Final exams	Monday-Wednesday	August 20-22
Grades submission deadline	5 p.m. Friday	August 24

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 19,000 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, and 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 460, 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 $12.3 million in grants and funding for research efforts across multiple disciplines in the 2008-2009 academic 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 Liaison Committee on Medical Education (LCME) has awarded preliminary accreditation to the Oakland University William Beaumont School of Medicine, putting the school on track to begin instruction in August 2011. 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, now 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, 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 approximately 1,200 students at the Macomb University Center and the Macomb Intermediate School District. The Thomas M. Cooley Law School-Auburn Hills campus 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 2,100 residential students in its six co-ed residence halls, student apartments 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 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 programs 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 serves also to reinforce the public service role of the university.

Public service

Oakland University serves its constituents through a philosophy and program of public service that 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.

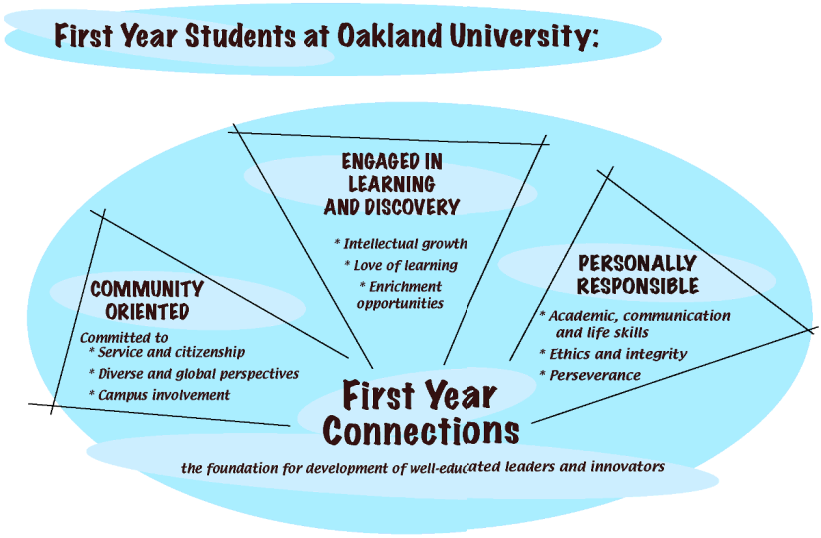
The University takes particular cognizance of its considerable enrollment of older and non-traditional students and provides advising, counseling, and other services of special value to such students in effecting career changes and developing additional personal competencies.

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 and provides them with the skills essential to the achievement of their fullest potential.

Oakland University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, ncahigherlearningcommission.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.

GENERAL INFORMATION

Admission

Admission to freshman standing (Apply online at oakland.edu/apply)

Candidates for admission to undergraduate degree programs should have completed high school-level college preparatory work or otherwise demonstrate sufficient academic preparation to begin college work. Normally, high school courses should include, as a minimum, four years of English language arts, three years of mathematics, three years of science, three years of social studies and two years of world language. Students planning majors in the sciences, mathematics, engineering or business are expected to present at least four years of preparation in math, including algebra, geometry and trigonometry. Consideration for admission is based upon an applicant's academic background, including high school academic achievement, educational goals and potential for success at Oakland University. Students applying as freshmen must submit scores from the American College Test (ACT) or College Board SAT.

Normally, Oakland University will admit students with cumulative grade point averages in academic subjects of 3.20 or above. Applicants with cumulative grade point averages below 3.20 but above 2.50 may be admitted after consideration of the quality of their academic preparation. In some cases, a personal interview may be requested. Students must submit an application, ACT or SAT scores, and an official copy of their high school transcript for an admission decision to be made.

Specific academic programs may impose special requirements for admission. Thus, admission to the School of Business Administration is restricted to students presenting a 2.80 grade point average in academic courses and at least four years of college preparatory mathematics courses.

Admission to pre-elementary education status in the School of Education and Human Services requires a high school grade point average of 2.80 or higher. Entering freshmen planning to major in engineering or computer science also should have taken at least four years of high school mathematics courses (maintaining a 3.00 or B average) as well as courses in chemistry and physics and have a solid background in English language arts. Drafting and machine shop courses are useful, but not necessary. Normally, a 3.00 (B average) is required for admission to the School of Engineering and Computer Science.

Students planning to major in music, theatre and dance must audition for the department's faculty. Audition dates are posted at **oakland.edu/mtd.**

Students wishing to enter the pre-nursing program should have completed four years of mathematics, one year of college preparatory biology and one year of chemistry, each with a grade of 2.8, in addition to presenting an academic grade point average of at least 3.20 and an ACT minimum composite score of 20 or SAT equivalent. Students who are eligible for admission to the university, but not to one of the above programs, may enter the university as undecided students, but may be able to qualify for admission to these programs after they have enrolled at the university. Students may complete an online application for admission through the Oakland University website (**oakland.edu/apply**).

Applications should be submitted as early in the senior year as possible, and no later than January 15 for merit scholarship consideration.

Admission for transfer students (Apply online at oakland.edu/apply)

Transfer students may enter Oakland University in any semester. The application is found at oakland.edu/apply. Applications should be submitted as early in the year as possible, and no later than August 1, for fall merit scholarship consideration. Prospective students with questions should contact the Office of Undergraduate Admissions, 101 North Foundation Hall, (248) 370-3360.

Transfer students with a minimum of 24 college credits at the time of application and a GPA of at least 2.5 will be considered for admission to Oakland University. OU also will consider positive trends of most recent grades. Transfer students with fewer than 24 college credits at the time of application also must submit a high school transcript. Admission will be based on both college and high school records.

To be considered for transfer admission, students must submit an online application and have official transcripts of course works taken at any university or college sent to Oakland University. *While some students may be submitted based on unofficial documents, this does not remove the obligation to provide official transcripts. Students who fail to provide official transcripts will be prevented from registering in subsequent semesters until all transcripts have been received.* Students should submit official college transcript(s) to the Office of Undergraduate Admissions from each college or university attended. The transcript must bear the seal of the institution and must not be stamped "issued to student." Students who have attended more than one college should submit official transcripts from each institution.

Concurrent enrollment admission

Specifically qualified high school students and transfer students may be permitted to enroll in classes at both Oakland University and a select participating community college. Certain restrictions may apply. To learn more, or for a complete list of participating community colleges, visit oakland.edu/cc2o.

Freshman applicants must submit high school transcripts and ACT scores along with a completed application for undergraduate admission. Admission to a concurrent enrollment program is based on a combination of criteria, including cumulative GPA in academic subjects of 3.20 or above. Applicants with a cumulative GPA below 3.20 but above 2.50 may be admitted after consideration of the quality of academic preparation.

Transfer students with 32 or fewer earned college credits at the time of application and a minimum 2.5 GPA will be considered for admission to a concurrent enrollment program. Positive trends of most recent grades will also be considered. Transfer students with fewer than 24 earned college credits at the time of application must also submit a high school transcript. Admission will be based on both college and high school records. Once admitted, transfer students will receive a preliminary transfer credit evaluation of coursework completed at other institutions. Find out what credits will transfer to Oakland University from Michigan community colleges by using the transfer equivalency guide located online at oakland.edu/transfercredit.

Concurrent enrollment admission deadlines are as follows:

Fall semester: July 1
Winter semester: October 1
Summer semester: April 1

Admission for dual-enrolled high school students

Specially qualified high school students may be permitted to enroll in classes on a part-time non-matriculating basis. Students who wish to pursue course work at Oakland University that is not available at their high school must complete the Dual Enrollment application. This form requires the signatures of a parent and a school counselor or principal. A copy of the student's current transcript must accompany the Dual Enrollment application. High school students wishing to attend Oakland University must have a 3.00 cumulative grade point average and have a minimum junior standing. Admission is valid for one year provided the student earns a 2.0 in each course completed. Students wishing to take subsequent courses must reapply each year. Students whose high schools will be paying for university tuition must submit verification to the Office of Student Financial Services, 120 North Foundation Hall. Dual enrollment applications are available to the Office of Undergraduate Admissions, 101 North Foundation Hall or online at oakland.edu/apply.

Transfer students

Students who wish to transfer to Oakland University should consult the Transfer student information section for information on admission and requirements.

Admission of students whose formal education has been interrupted

Admission of individuals whose formal education has been interrupted for three or more years, and who would not normally meet other admission criteria, may be based on one or more of the following: sustained employment record; recommendations from employers, educators and other professionals; and standardized test results. An interview with an Oakland University admissions adviser is required for such applicants to be considered for admission.

Admission for students who are not American citizens

International students with an F or J visa should contact the Office of Undergraduate Admissions at least one year before they wish to be admitted. Prospective international students can visit oakland.edu/apply to view upcoming deadlines, apply online and download a supplementary application packet. Students transferring credits from foreign institutions will be requested to provide an evaluation of credit taken at foreign institutions. When the application is approved, the candidate will receive a certificate of admission and form I-20. These are to be used to apply for the appropriate visa. Prior to the student's official registration, proof of adequate medical insurance plus a signed authorization for emergency medical treatment must be on file in the university's Graham Health Center.

International applicants, other visa holders, permanent residents, and exchange students whose native language is not English must provide proof of English proficiency. TOEFL and MELAB requirements are available on page 71.

Students who are not U.S. citizens or permanent residents of the United States and are transferring from other institutions also must obtain an I-20 from Oakland University. Students requesting such transfers should consult with the international student adviser at their previous school and with the Office of International Students and Scholars, (248) 370-3358, or oakland.edu/isso about required transfer and immigration procedures. Students holding all other visa types should consult the Office of Undergraduate Admissions to learn about admissions procedures.

Admission to guest status

Students enrolled in good standing at accredited Michigan colleges and universities may apply for guest admission by filing the Michigan Uniform Undergraduate Guest Application form, which is available from the registrar's office at their home institution. This form should be submitted to the Office of Undergraduate Admissions well before the beginning of each semester students plan to attend as guests. Students attending Michigan colleges or universities are not required to submit transcripts. Students attending accredited colleges or universities outside of Michigan, however, must submit a current transcript with the Oakland University guest applications, available through the Office of Undergraduate Admissions or online at oakland.edu/guest. Tuition for guest status will be assessed at undergraduate upper division rates.

Guest students should consult individual course descriptions in this catalog to determine any prerequisite requirements for registration. Some courses are restricted to Oakland University students who have been admitted to major standing.

Admission to post-baccalaureate status

Post-baccalaureate (PB) status indicates that students hold a bachelor's or higher degree and wish to enter college for the purpose of pursuing undergraduate classes. Under PB status, admission is as a special non-degree candidate and previous academic work will not be evaluated by Oakland University's registrar. Tuition for PB status will be assessed at undergraduate upper division rates. Post-baccalaureate students may not qualify for financial aid consideration at Oakland University.

Admission to non-matriculating status

Applicants who wish to enroll in undergraduate courses, but do not wish to be admitted to an undergraduate program may request non-matriculating status. Non-matriculating status may be provided to students with permission from the Office of Undergraduate Admissions. To obtain this status, students must contact the undergraduate admissions staff to discuss application procedures.

Students admitted with non-matriculating status are limited to earning 12 credits in that status and must secure regular admission to the university in order to be eligible to register thereafter. To later be considered for regular admission, non-matriculating students need to submit an online application at **oakland.edu/apply** and forward transcripts from all past colleges attended. Non-matriculating students will receive full academic credit for courses in which they successfully complete. Tuition for non-matriculating status will be assessed at undergraduate lower division rates.

Admission to second degree status

Second degree status indicates that students currently hold a bachelor's degree but wish to earn a second undergraduate degree with a different major. Each **academic department** determines the specific admissions criteria for second-degree students. To apply, visit **oakland.edu/apply**. Tuition for second degree status will be assessed at undergraduate upper division rates (see *Additional undergraduate degrees and majors*).

Updating your admission status

Failure of a student, once admitted, to provide complete application credentials prior to the closing of admission or failure to register for classes invalidates an application for admission. Reinstatement of such files must be requested in writing. The request must be received in the Office of Undergraduate Admissions by the closing date for applications for the semester students wish to enroll. Reinstatement may be for any term within one year of the original term of application. In this case, an additional application is not required. A new application is required after one year.

Advanced placement

Course exemption and/or credit toward graduation is granted to students who have official scores sent to the university by the Advanced Placement Program of the College Entrance Examination Board. Oakland University grants credit for scores of 5 or 4 in advanced placement examinations, and in some cases, also for scores of 3. Students presenting AP scores for credit should be aware that the content of particular courses may not correspond to that of any university courses. In such cases, the AP credit would count toward graduation but would not satisfy any academic program requirements. A statement of policy regarding credits and exemptions given for particular examinations is available from the Academic Records Office, 102 O'Dowd Hall, (248) 370-3462. Students may also review the AP Policy on our website at oakland.edu/appolicies.

Readmission

Readmission applies to students who previously enrolled at Oakland University and whose attendance was interrupted. Student should contact the Academic Skills Center, 103 North Foundation Hall, (248) 370-4215 at least 45 days prior to the start of the term in which the student expects to enroll (see *Readmission section* under *Academic Policies and Procedures*).

College-level Examination Program (CLEP)

Credit toward graduation can be granted to students who demonstrate competence in various areas tested in the College-level Examination Program (CLEP) administered by the College Entrance Examination Board. (Students who wish to use CLEP tests as admission credentials should have their scores forwarded to Oakland University's Office of Admissions and Orientation). CLEP examinations are of two types, general and subject. General examinations are offered in English composition, social science and history, humanities, and natural sciences. Oakland University will grant 6 credits for each general examination passed with a score of at least 550, with the following stipulations: students must have accumulated less than 32 credits at the time of the examination and have not previously received college credit in the field of the examination. Credit granted for general examinations is elective credit only.

Subject examinations are offered in a variety of specific subject areas. Oakland University may, at the discretion of the academic unit responsible for the subject, grant either 3 or 6 credits for subject

examinations passed with a score of at least 55, with the following stipulations: non-transfer students must have accumulated fewer than 64 credits at the time of the examination, while transfer students must have earned fewer than 32 Oakland University credits; students must not have previously taken more advanced work in the field of the examination; and no credit will be granted for examinations that cover material comparable to Oakland University courses that do not carry credit toward graduation. Information can be found on our website at oakland.edu/clep.

International Baccalaureate Diploma Program

Oakland University grants credit and/or course exemptions to students based on their IB scores. This policy is currently under review. Students who participated in the IB program in high school should request that their scores be provided to the university for evaluation.

Special opportunities for students

Oakland University offers students several unusual opportunities for study both on and off campus. These opportunities are described here, and academic advisers and faculty members are able to assist students interested in pursuing any of them.

Research opportunities

Advanced students are encouraged to join faculty research projects in various capacities. At Oakland University, opportunities, often reserved for graduate students elsewhere, are available for advanced undergraduate students. Student researchers have an opportunity to contribute to the development of new knowledge in a field and may share in the publication of results related to novel research projects. An undergraduate interested in joining a faculty research project should consult with their advisers or may approach an individual faculty member concerning projects in their area of interest. Research involving the use of Humans, animals, biohazardous or radioactive materials has to be approved by the appropriate compliance committee before research activities can be initiated (see Academic Policies and Procedures).

Computing resources

A wide range of computing resources are available to students at Oakland University. All students can connect to the Internet via Grizznet, a wireless network that spans multiple campus buildings, the residence halls and student apartments. It is recommended that students purchase laptops for use on the Oakland University wireless network, or that students plan to use a personally-owned desktop computer. High quality printing capability is available in several campus locations. Computer facilities are readily accessible in Kresge Library, Oakland Center and other departmental locations.

Study abroad

International Education sponsors study abroad throughout the world. Oakland University students may avail themselves of as many as 20 different study abroad programs, some sponsored by the AHA International and the Midwest Consortium for Study Abroad in Argentina, Australia, Austria, Brazil, Chile, England, France, Greece, Ireland, Italy, Mexico, New Zealand, and Spain. The Consortium of Japan Center for Michigan Universities sponsors our program in Hikone, Shiga Province, Japan, established in 1989. It provides up to two years of study in Japan. The Student Exchange Program in Nagoya, Japan, at Nanzan University, is a two-semester program. One year of Japanese language is required; courses are taught in English. Housing is with a Japanese family.

The College of Arts and Sciences offers an intensive six-week language and culture study at China Foreign Affairs University, Beijing, in May and June of each even-numbered year, focusing on language study via linguistic immersion into standard Mandarin Chinese. Beginning level Chinese language courses are taught by English-speaking Chinese instructors; intermediate level Chinese language courses are taught in Chinese. History and culture classes are also taught in English by Chinese professors. Classroom content includes side-trip visits to historic sites such as the Great Wall and the Forbidden City.

Other Oakland University programs include the summer British Studies at Oxford program, established in 1976, semester programs sponsored by the Department of Modern Languages in Orleans, France, and University of Oldenburg in Oldenburg, Germany.

All programs provide credits toward baccalaureate degrees. For additional information about these programs, see the Center for International Programs portion of this catalog or the Office of International Education web site (oakland.edu/ie). For information about additional study abroad opportunities, see the Modern Languages and Literatures section of the catalog or the Office of International Education website (oakland.edu/ie).

Veterans' certification

Students receiving VA education benefits must complete a request for enrollment certification with the Office of the Registrar at the beginning of each semester. Students must have all eligibility documents on file with that office as well as an academic plan of work. Students receiving benefits must report promptly all changes in enrollment. Students on probation for two consecutive terms cannot be certified for benefits. For further information, please contact the certification official at the Registrar's Office, 101A O'Dowd Hall, (248) 370-4010.

Oakland University e-mail

Oakland University provides each student with free e-mail service and an e-mail address. Important notices about official Oakland University business are sent to e-mail accounts, instead of through the United States Postal Service. This information is important to maintaining a student's relationship with the university and will include notices about financial aid, grades, tuition bills, *Schedule of Classes* and other relevant data. The university will hold students accountable for all information sent via e-mail. Therefore, all registered students should check their Oakland University e-mail account regularly, at least, weekly. The University Technology Services website (**oakland.edu/uts**) offers tips and information on how to activate, access and forward your OU e-mail. Oakland University will not sell or give away student e-mail information and will not use e-mail to advertise for third parties.

Tuition

Tuition rates subject to revision

The Oakland University Board of Trustees reserves the right to change any and all tuition rates when circumstances make such a change necessary.

Tuition rates

Tuition rates quoted in this catalog are from the 2010-2011 academic year unless otherwise indicated. Michigan residents who register as lower-division undergraduates (fewer than 56 total credits) are assessed $309.50 per credit. Upper-division undergraduates (more than 55 total credits) are assessed $338.25 per credit. Graduate students are assessed $540.50 per credit. All students who are classified as nonresidents are assessed tuition at out-of-state rates: $722.50 per credit for lower-division undergraduate students; $774.50 per credit for upper-division undergraduate students and $932.25 for graduate students. All university charges are subject to revision, without prior notice, by action of the Board of Trustees.

Tuition for upper-division undergraduate students also apply for post-baccalaureate and undergraduate college guest students.

Tuition rate charts may be found on the Oakland University website at Oakland.edu/sbs under 'Costs'.

Course competency by examination fee

Students who register for degree credit by course competency examination are assessed $50.00 per credit.

Billing cycle and due dates

Tuition is assessed at the time of registration and is payable in U.S. dollars. Remittance should be made payable to "Oakland University" and identified with the student name and Grizzly ID number.

Tuition and university housing charges are generally due three weeks into a semester. Student Business Services will send billing notifications electronically to each student's official Oakland University e-mail address. Students also may access their student account information, including bills, via the **eBill system** at Oakland.edu/ebill. Questions about your bill may be addressed to the Office of Student Financial Services. For important billing and payment information, visit the **Student Business Services** website at Oakland.edu/sbs.

FAILURE TO RECEIVE AN ELECTRONIC NOTIFICATION DOES NOT EXCUSE STUDENTS FROM REQUIRED PAYMENT ON THE SPECIFIED DUE DATE.

Payments returned by the bank are considered nonpayment and may result in cancellation of registration. A $25.00 returned items charge will be assessed for returned items.

Late payment penalty

Payment in full of the total balance due will avoid assessment of a 1.5% monthly late payment penalty. Student accounts must be paid in full by the established due dates for students to be eligible to register during the next registration period. Transcripts, diplomas or other statements of record will be withheld and students will be ineligible to enroll and/or continue to be enrolled in future semesters until their obligations have been fulfilled. If an account is not paid in full by the end of the semester, it will be referred to an outside collection agency that will report it to the Credit Bureau.

Payment and registration status

All registrations for a given semester are considered to be temporary and tentative, based on satisfactory academic progress and total satisfaction of all financial obligations to the university. Oakland University will reverse the future semester registration of any student if the student has a delinquent account balance from a prior semester. For more information, please see the De-Registration Policy on the Student Business Services website at oakland.edu/deregistration.

NOTE: Students who find it necessary to drop all courses for which they are registered may do so by filing an official withdrawal form with the Registration Office or by dropping all of their classes via SAIL Web. Withdrawals filed with the Registration Office can be processed in person, by fax or by certified mail. Withdrawal forms are available on the **Registrar's Office** Web site. Students who use SAIL Web to drop their last class will be considered withdrawn effective the date they drop their last class. Refunds, if applicable, are based on the date of notification to the Registration Office or on the date the last class was dropped via SAIL Web.

Payment Options

All payments must be in U.S. currency.

Remittance should be made payable to "Oakland University" and identified with the student name and Grizzly ID number.

Payments returned by the bank are considered nonpayment and may result in cancellation of registration. A $25.00 returned items charge will be assessed for returned items.

Payments options are as follows:

- **Online** through **eBill at oakland.edu/eBill**. Online payment methods include online checking or savings account (ACH), debit card, or credit card. You will need your Grizzly ID

number and six-digit SAIL PIN. The account will be credited immediately when paying by eBill. Electronic payment confirmations will be sent.

- **By mail**, by check, to the Cashier's Office, 120 North Foundation Hall, Oakland University, Rochester, MI 48309-4401. Please allow 5-6 days for mail delivery. All payments should include the Grizzly ID number to ensure correct and timely processing. Receipts will not be mailed; your cancelled check is proof of payment.
- **In person**, at the Cashier's Office, by cash, check, debit card or credit card. The student account will be credited immediately when paying in person. Be sure to bring your driver's license, OU Spirit Card or other government issued picture identification. You may use the payment drop-box, located outside of the Cashier's Office, during non-business hours for check payments only. Receipts will be mailed to the student if the payment is made by a third party who does not know the Grizzly ID at the time of payment.

OU payment plan: offering easy payment options for students and families

For instructions on how to use eBill, to pay your bill online, or to **enroll in a payment plan**, visit **oakland.edu/ebill**.

De-registration policy

Students who are not in good financial standing (have a past due balance from a prior semester(s)) will be taken out of their future semester classes. Students will be required to re-enroll for classes based on class availability if they correct their financial standing by paying the past due balance from the prior semester(s) in full. To stay in good financial standing, please pay all OU bills on or before their due dates. For more information, please see the De-Registration Policy on the Student Business Services website at oakland.edu/deregistration.

Residential service – University Housing

Residence halls and apartments are financially self-supporting. Housing costs, including room and board, reflect the actual cost of operation and are established by the Oakland University Board of Trustees. The 2010-2011 rate for double room and board is $7,680 for fall and winter combined. Single room costs, if available, are $8,350.

University Student Apartments and George T. Matthews Apartments are available for students who are junior standing and at least 20 years old. Students can select from two-bedroom, three-bedroom (handicapped accessible) or four-bedroom apartment styles. The 2010-2011 academic year rate for a four bedroom apartment is $6,090. The two-bedroom apartment rate is $6,400. Students living in the apartments are not required to have a meal program. Voluntary meal plans are available for purchase.

Students who sign a housing contract are committing to a binding agreement for the contract period. The housing costs may be paid in full at registration or paid in installments as specified in the *Schedule of Classes*. If students withdraw from Oakland University, room and board costs are refunded on a prorated basis less penalty costs as described in the terms and conditions of the contract. Formal notice of withdrawal must be given to the Housing Office.

Non-dischargeable educational benefits

Oakland University ("university") may provide, extend or advance funds, credits and/or other financial accommodations to students, to be applied towards their tuition, with the understanding that students will re-pay those amounts. All such amounts, other than scholarships, fellowships, stipends and/or tuition waivers, are loans and/or educational benefits which students must repay to the university together with late payment charges as established by the university. In consideration for allowing students to attend classes, students agree to repay the university loans and/or educational benefits and acknowledge that their re-payment obligation is not dischargeable in bankruptcy.

Expelled or suspended student refund policy

When a student is expelled or suspended from the university for disciplinary reasons (either academic or non-academic), the date of the disciplinary violation will be used to determine whether the student is entitled to a refund of any tuition according to the current University Tuition Refund Schedule. Additionally, residence halls and apartment room and board charges will be pro-rated based on the student's room checkout date.

Taxpayer identification numbers

University requirement to collect Taxpayer Identification Numbers (SSN/TIN):

The University is required to collect a student's SSN/TIN for various reasons:

- Students applying for any form of on-campus employment.
- Students must provide an SSN/TIN when they apply for financial aid.

The Taxpayer's Relief Act of 1997 was passed by the Congress and signed into Federal Law by the President in 1997 to offer the American taxpayer some relief if they made payments during the tax year to a qualified university. Part of this law is a requirement that the university receiving such payments report annually to the taxpayer and the Department of Treasury, the taxpayer's identification number (for individuals, this is their social security number), the taxpayer's name, qualified tuition and charges billed and grants or scholarships received, and the student's enrollment status. This information is to be reported regardless of the taxpayer's intention to actually take a credit or deduction under this law. The university must therefore receive your TIN before it can conduct billing and receipting transactions with you. You can find more information about this law on the web at nacubo.org/edtaxcredits.xml or by going to the Internal Revenue Service site irs.gov and refer to the "Tax Regs" section. This public law is in the Internal Revenue Code, Section 6050S.

You may use an **IRS Form W-9S** to submit this information. This form may be obtained at irs.gov.1098-T: Please submit your completed form W-9S to Student Business Services via fax: 248-370-4661; via US mail: Attn: 1098T, Student Business Services, Oakland University, 2200 N. Squirrel Road, Rochester, MI 48309-4401; drop off at: Cashier's Office, 120 North Foundation Hall, Oakland University.

IRS *Form 1098-T*: To assist you or your parents in taking a tax credit or deduction for qualified tuition and charges paid, the university will issue an IRS Form 1098-T to students each January. The *1098-T* reports the amount of qualified tuition and charges billed and grants or scholarships received for the previous tax year. You may obtain your 1098-T electronically by visiting sail.oakland.edu, click 'Login to Secure Area', click 'Student Services & Financial Aid', click 'Student Records', and then click 'Tax Notification'.

Requirements of the Taxpayer's Relief Act of 1997

The Taxpayer's Relief Act of 1997, as amended by the Internal Revenue Service Restructuring and Reform Act of 1998, offers certain American taxpayers some tax relief for specific kinds of payments made to a qualified university. These laws require universities that enroll any individual for any academic period to report specific information annually to the enrolled individual and the Department of the Treasury, including the enrolled individual's name, address and taxpayer identification number (TIN) or social security number (SSN), and the amounts paid to the university (or billed by the university) for the enrolled person during the previous tax year. The university must report this information regardless of whether an enrolled person or other taxpayer intends to claim a credit or deduction for payments to the university. The only exceptions to this reporting requirement apply to (a) nonresident alien individuals, (b) courses for which no academic credit is offered by the university (although reporting is required for students who enroll concurrently in both for credit and non-credit classes), (c) individuals whose qualified tuition and related expenses are waived in their entirety or paid entirely with scholarships, and (d) individuals whose qualified tuition and related expenses are covered by a formal billing arrangement

as defined in the applicable regulations (e.g., a university bills a student's employer for all tuition and expenses and the university does not maintain a separate account for the student). The university must therefore receive your TIN or SSN before it can conduct billing and receipting transactions with you. The law describing the reporting requirements is 26 U.S.C § 6050S, and the applicable regulations are located at 26 C.F.R. § 1.6050S-0, et seq.

Tax withholding and reporting

For U.S. citizens and resident aliens, the university is not required to report scholarships or fellowships to the Internal Revenue Service. Reporting such income for tax purposes is the sole responsibility of the recipient.

For nonresident aliens, scholarships and fellowships may be subject to federal income tax withholding based on the student's visa type, the degree path of the student, and the existence of a U.S. tax treaty with the student's country of residence. The federal income tax withholding rate may be 0%, 14% or 30% depending on the circumstances, and the tax rate may apply to a portion of the scholarship or fellowship.

The withholding rate for a nonresident alien using tax treaty provisions would be 0% or another rate based on the treaty. If a tax treaty is not used, the withholding rate would be 14% of taxable portion for individuals with F, J or M visas and 30% of taxable portion for others. The taxable portion for students not seeking a degree is the total amount of the financial aid award. The taxable portion for students seeking a degree is the total amount of the financial aid award less qualified educational expenses.

IRS tax regulations require scholarship and fellowship awards for nonresident aliens be reported to the IRS and to the recipient after each calendar year on Form 1042S – Foreign Person's U.S. Source Income Subject to Withholding. Form 1042S is used to report taxable scholarship/fellowship payments made, income tax withheld and other information relating to the grant payments.

Oakland University mails out Form 1042S to students during the second week of March.

Residency classification for admission and tuition purposes

For University purposes, "domicile" is defined as the place where an individual intends his/her true, fixed and permanent home and principal establishment to be, and to which the individual intends to return whenever away. Upon admission to the University, a student is classified either as a Michigan resident or a nonresident based upon information relating to the student's domicile. A determination of Michigan domicile is required for in-state tuition rates to apply, except as stated below.

An individual whose activities and circumstances, as documented to and found by the University, demonstrate that the individual has established a Michigan domicile will be classified as a resident. An individual whose presence in the state is based on activities or circumstances that are indeterminate or temporary, such as (but not limited to) educational pursuits, will be presumed not to be domiciled in Michigan and will be classified as a nonresident. To overcome a presumption of nonresident status, a student must file an Application for Reclassification of Residence Status and document with clear and convincing evidence that a Michigan domicile has been established. The burden of proof is on the applicant.

Evidence of domicile: Certain circumstances, although not controlling, support a claim of domicile. Other circumstances create a presumption against domicile. Circumstances supporting a claim of domicile include:

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

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

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

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

In cases where the University determines that an applicant has not demonstrated establishment of Michigan domicile, unless substantial and new information arises that clearly demonstrates the establishment of domicile, the University will require the applicant to document one year of continuous physical presence in the state as one of the criteria for determining eligibility for resident classification in any subsequent application. The year of continuous presence is never the only criterion used for determining resident eligibility, and, in itself, will not qualify a student for resident status.

In documenting the year of continuous physical presence in Michigan, the applicant will be expected to show actual physical presence by means of enrollment, employment, in-person financial transactions, health care appointments, etc. Having a lease or permanent address in the state does not, in itself, qualify as physical presence. A short-term absence (summer vacation of 21 days or less, spring break and break between fall and winter term), of itself, will not jeopardize compliance with the one-year requirement. In determining the effect of a short-term absence, the nature of the absence will be assessed to determine whether it is contrary to an intent to be domiciled in Michigan.

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

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

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

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

(b) **Non-residents**: A dependent student whose parents are domiciled outside the state of Michigan is presumed to be a nonresident.

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

- An individual domiciled in Michigan for 5 years just prior to leaving the state for less than one year may return to the University as a resident for admission and tuition purposes.

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

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

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

- Graduate students who hold an assistantship or fellowship awarded through Oakland University;
- Students employed in Michigan in full-time, permanent positions;
- Students admitted to approved on-line degree or certificate programs;
- Students who are active duty members, or the spouse or dependent child of an active duty member, of the Armed Forces of the United States, while that active duty member is stationed in Michigan and during the student's continuous enrollment in the academic degree program in which he or she is enrolled if that active duty member is transferred to an active duty location outside Michigan; or if the student is the child of an active duty member of the Armed Forces of the United States who was stationed in Michigan but is transferred to an active duty location outside Michigan within the one year period preceding the student's initial enrollment and the student continues to live in Michigan.

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

Residency application process

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

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

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

Residency reclassification documentation: When filing for reclassification, the following are required:

- a completed application;
- a written signed statement explaining why Michigan is one's true home;
- a letter from the employer of the family member providing the major support for the student stating the family member's position title, when the Michigan employment began, and, for aliens, the status of any application for permanent residency;
- documentation of the Michigan home (lease or home purchase document); and
- application must be submitted 30 days prior to the first day of the term.

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

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

Financial Aid, Scholarships and Student Employment

Everyone knows college is both an academic and a financial commitment. Thinking about the costs of tuition and other expenses may leave you or your family overwhelmed. We believe cost should not stand in the way of an exceptional education. We pride ourselves on offering an outstanding college experience at an affordable price. More than 65 percent of Oakland University students receive financial assistance totaling more than $100 million. *You can benefit from those funds, too.*

A variety of scholarship, grant, loan and student employment opportunities are available through Oakland University, federal, state, local and private sources. Complete information concerning scholarships, grants, loans and student employment programs is available on the Oakland University website at oakland.edu/financialaid.

Office hours

The Student Financial Services/Financial Aid Office includes financial aid, student employment, and billing payment assistance. It is located at 120 North Foundation Hall. The office is open from 8 a.m. to 5 p.m. Monday through Friday and it is closed during holidays and holiday breaks.

Applying for financial aid and scholarships

You must be admitted and enrolled in a financial aid eligible program at Oakland University to be considered for financial aid which includes scholarships, grants, loans and student employment. Admitted students automatically receive consideration for scholarships. Many scholarships are automatically renewable provided renewal criteria are met.

To be considered for federal, state, or financial need-based aid, complete the Free Application for Federal Student Aid (FAFSA) online at fafsa.gov. To maximize your financial aid award package, we

recommend you complete your FAFSA as soon as possible after January 1 for the upcoming academic year. You must complete a FAFSA each year in which you are interested in receiving financial aid. Since financial need-based aid and most institutional aid is awarded on a first-come first-serve basis as funding is available, it is beneficial to apply early. (If you qualify for the Michigan Competitive Scholarship, your FAFSA must be received by March 1.) Be sure to include Oakland University's federal school code of 002307 on your FAFSA.

If you provide an email address on your FAFSA, it is important for you to keep your email address updated on your FAFSA in order for you to receive important communications from the federal processor. OU will assign you an OU email address. Your email address on your FAFSA might be different than your OU email address. OU will communicate with you only through your OU email address. It is important for you to access your Oakland University email on a regular basis.

You must include your social security number on your FAFSA for the U.S. Department of Education to process your application. You must also provide your social security number to Oakland University in order to be awarded federal, state and financial need-based aid and for student employment purposes. If Oakland University does not have your social security number, your financial aid application and/or request for student employment will not be processed.

Although you do not need to wait until your income tax forms have been filed to complete the FAFSA, it is very important for your FAFSA to be accurate. Inaccurate information can cause delays in processing. If you estimate your income, you are required to make corrections when your tax forms are complete. Inaccurate or estimated information can change a financial aid package significantly.

Financial aid award notifications are sent to your OU email address beginning the end of March for the upcoming academic year. Financial aid awards and adjustments continue throughout the year as subsequent funding and information become available. Financial aid notifications provide information concerning the amount and type of financial aid you are eligible to receive.

Financial Aid is initially offered for the regular academic year of fall and winter semesters. If you qualify for a summer federal Pell Grant, it will automatically be awarded to you. If you are interested in receiving federal student loan for the summer semester, you need to complete a Summer Financial Aid Application available on the financial aid website at oakland.edu/financialaid.

The Financial Aid Office might need additional information or documentation from you to support your financial aid awards and package. It is important to respond to any request promptly. Delays in providing information and documentation to the Financial Aid Office may affect your financial aid award package and/or the payment of funds to your student account.

Unusual circumstances/dependency status

Extenuating family circumstances such as long term loss of employment or income, death, separation or divorce, medical/dental expenses not covered by insurance and a dependent student's relationship with parent(s) can affect a student's financial aid package. If you have extenuating circumstances, an Unusual Circumstances Form and a Dependency Status Appeal Form are available on the financial aid website at oakland.edu/financialaid. Changes in the income of a dependent student are not considered for review.

Sources of financial aid

Oakland University offers a variety of scholarship programs. The wide range of scholarship opportunities indicates the scope of the university's commitment to academic excellence, student leadership and achievement. Scholarships are awarded primarily on the basis of academic accomplishment and do not require repayment. Additional selection criteria may apply. Although not required, all students are encouraged to complete the FAFSA at fafsa.gov to receive maximum consideration of all scholarships.

Oakland University grants are available for financially needy students who are enrolled full-time in their first undergraduate degree program. Grants do not require repayment. To be considered for need-based grants, students must complete the FAFSA at fafsa.gov.

Scholarship and grant awards are typically made in the fall and winter for the upcoming academic year and are only available to students admitted and beginning enrollment in the fall semester. Awards are divided between the fall and winter semesters and usually require full-time enrollment. Some awards are not applicable to the summer semester. Renewable awards do not require a renewal application unless otherwise stated. Renewals are subject to the availability of funding and meeting any additional renewal criteria set forth by the award. The university, in its sole and absolute discretion, may determine the number and amounts of awards each semester and/or academic year, rescind an award if the student no longer meets the eligibility requirements and/or terminate the entire award.

Oakland University participates in all federal financial aid programs. Grants, loans and on-campus student employment (work study) are available. All federal programs require the annual completion of the FAFSA at fafsa.gov.

Oakland University also participates in all financial aid programs available through the state of Michigan. State programs may require the annual completion of the FAFSA at fafsa.gov. More information about state of Michigan programs is available at michigan.gov/mistudentaid.

Information on all Oakland University, federal and state of Michigan scholarship, grant and loan programs is available at on the Financial Aid website at oakland.edu/financialaid.

Local and private resources

Many organizations and private agencies provide financial assistance to students. Some of these are local social groups, foundations, professional associations, civic organizations, corporations and churches. Information on these programs varies greatly and may be obtained from the sponsoring organizations, high school counseling offices and the Financial Aid Office website. Students are encouraged to pursue these resources on their own.

Student employment

Student employment provides on-campus jobs for undergraduate and graduate degree-seeking students enrolled at OU at least half-time; a few off-campus jobs are also available. Two types of student employment are available at OU: Federal Work Study and regular student employment. Federal Work Study provides on-campus jobs for students who demonstrate financial need; the FAFSA is required. Regular student employment allows on-campus employment for students who do not qualify for Federal Work Study; the FAFSA is not required.

During the Fall/Winter semesters students can work up to 25 hours per week; however, international students are limited to 20 hours per week. During Fall/Winter semester breaks (December to January semester break, Winter Recess) and the summer semester, students may work up to 40 hours per week. International students may work up to 40 hours per week during the summer only. Although a student does not need to be enrolled for summer semester in order to work on-campus during the summer, the following requirements must be met:

- Required to be enrolled at least half-time in the preceding winter semester.
- Have not completed graduation requirements.
- Enrolled at least half-time for the upcoming fall semester.

Students who will work through student employment must complete the following applicable hiring forms available on the Oakland University website at oakland.edu/financialaid:

- If you never worked on campus, complete an Employment Eligibility Verification (I-9), form W4 Employee's Federal Withholding Allowance Certificate, a MI W4 Employee's Michigan Withholding Exemption Certificate and submit your original Social Security Administration card to be photocopied.
- If you worked on campus and have secured an on-campus job, your employer will need to submit notification of their intent to employ you.
- Fall/Winter and summer are separate award periods and will require complete rehiring forms. The Employment Eligibility Verification (I-9) form must be presented to Student Financial Services with the required original documentation. Copies of documents cannot be accepted.

Direct deposit of payroll from student employment is available. The University will deposit your paycheck electronically into an account at any financial institution within the U.S. You will be able to retrieve a copy of your pay stub by accessing the Employee Services site on the Oakland University SAIL web page. To sign up for direct deposit, use the authorization at oakland.edu/financialaid under forms. Return direct deposit forms to Payroll Services, 121 West Vandenberg Hall.

OUCareerLink is web-based software where you can search all forms of employment in one convenient location online at OUCareerLink.com. To use this website as a student, you must first register for a user account. To create an account, register online at OUCareerLink.com. Click on the "Students and Alumni" link. Fill out the profile form creating your own username and password. Descriptions of the positions and information on how to apply for the jobs are on the website. Students cannot begin working until Student Financial Services sends an authorization to the hiring department. The hiring department will notify the student when work can begin.

The cost of attending Oakland University

The cost to attend Oakland University includes tuition, books, room and board, transportation and personal/miscellaneous expenses and loan charges. Costs are typically estimated because of the variety of the number of enrolled credits, housing options, class standing, etc. Financial aid packages are created based on an estimate of the average expected cost for a full-time student and a part-time student. The estimated cost of attendance for full-time (12 or more credits per semester) for the academic year (fall and winter semesters) is as follows (based on the 2010-2011 school year):

	Living On-Campus	Living Off-Campus	Living With Parent
Tuition	$9,904	$9,904	$9,904
Books and Supplies	1,226	1,226	1,226
Room and Board	7,680	6,770	1,500
Transportation	0	2,250	2,250
Personal/Miscellaneous	2,279	2,279	2,279
Loans	36	36	36
TOTAL	**$21,125**	**$22,465**	**$17,195**

For tuition charges for full-time juniors and seniors, add $920. For tuition charges for full-time students who are not Michigan residents add $13,216 for freshman and sophomores and add $13,960 for juniors and seniors. (Refer to the *Schedule of Classes* for current tuition.)

Direct costs to Oakland University include tuition and on-campus housing. Books, supplies, transportation, personal/miscellaneous costs and loan costs are not paid to Oakland University; however, they are expenses you will incur and need to plan for financially. Federal, state and institutional financial aid can be awarded up to your estimated cost of attendance in coordination with all other resources. Financial aid might need to be reduced if cost of attendance is exceeded.

Undergraduate students are encouraged to enroll in a minimum of 31 or more credits a year in order to complete degree requirements within four years. For financial aid purposes, however, the following enrollment requirements determine eligibility for financial aid each semester:

Undergraduate Enrollment	**Fall credits**	**Winter credits**	**Summer credits**
Full-time	12 or more	12 or more	12 or more
Three-quarter time	9-11	9-11	9-11
Half-time	6-8	6-8	6-8
Less than half-time	1-5	1-5	1-5

Determination of financial need

Financial need is determined using the following formula:

Cost of Attendance less Expected Family Contribution (EFC) = Financial Need

The cost of attendance is determined by Oakland University utilizing federal guidelines. It is an estimate of the cost of education during a time period of attending school. The expected family contribution (EFC) is the result of the FAFSA application. The information you provide on the FAFSA is processed through a formula mandated by the United States Congress which calculates the EFC. The EFC is the amount that the federal government has determined that you and your family can contribute toward your education. The difference between the cost of attendance and the EFC is the financial need. Financial aid requiring a demonstrated financial need utilizes this formula to determine eligibility for need-based financial aid. (Non-need based financial aid can be awarded to you up to your estimated cost of attendance.)

Packaging of financial aid

Financial aid is offered in the form of scholarships, grants, loans and/or federal student employment. Awards are divided between fall and winter semesters. Awards are subject to estimated cost of attendance, limits on individual awards, housing options, enrollment status, grade level, residency, financial need, etc. Initial financial aid awards are based on full-time enrollment. If a FAFSA has not been completed, the expected enrollment status is full-time. After the enrollment period has begun, financial aid packages are adjusted to exhibit the enrollment status on the last day to drop a class with a 100% refund. Changes in expected enrollment status can be made prior to the start of the enrollment period by completing an Award Revision Form available on the financial aid website at oakland.edu/financialaid. Financial aid awards are based on enrollment at Oakland University. Students participating in an OU concurrent enrollment arrangement can combine transferrable credits and OU credits. Federal and state financial aid cannot be received at two schools during the same enrollment period. Financial aid can only be applied to the semester in which it is awarded.

Private scholarships checks and resources

Students are encouraged to seek scholarships from private sources. When you become aware that you will receive a private scholarship from a private organization, notify the Financial Aid Office in writing. When the organization provides you with the check, it needs to be sent to the Financial Aid Office. The check should include your name and student number. If the check is co-payable to you and Oakland University, endorse the check and forward it to the Financial Aid Office.

Although federal regulations and University policies require private scholarship checks as forms of assistance be counted as financial aid resources when determining eligibility for need-based financial aid and count toward meeting the cost of attendance, they improve your overall financial aid package.

Calculating what you will be expected to pay to Oakland University

Oakland University generates a bill each month for which there has been transaction activity of tuition, on-campus room and board and other related educational expenses billed through the student account or if there is a remaining account balance. Billing is done electronically and the bills may be viewed by accessing eBill at oakland.portal.edu. An email notice is sent to all students who have billing activity. Students can print a paper bills by accessing eBill. Paid financial aid is reflected on the billing notice and deducted from charges. To estimate a bill from Oakland University, it is recommended you do the following:

1. Add up your charges for tuition and room and board (if applicable).
2. Add up the amount of money (excluding work study) you will receive for the semester as shown on your most recent award notification (see Note below). Subtract this from the total you calculated in #1 above.

3. If your financial aid is greater than your charges, you will receive a refund. If your charges are greater than your financial aid, you are responsible for paying the difference by the appropriate due date.

EXAMPLE:	Tuition 16 credits	$4,952	
	Room & board	+3,840	
	Total charges	$ 8,792	
	Total financial aid	$ -7,775	
		$ 1,017	Balance due to the university

Note: If you are a financial aid recipient, all your financial aid requirements must be met before your financial aid will apply to your University account. You must provide the Financial Aid Office with adequate processing time. If your financial aid is not finalized prior to the billing due date, you are responsible for your charges. If applicable, a refund will be sent to you when your financial aid is finalized.

Financial aid disbursement policy

Financial aid funds are paid each semester by crediting the student account (excluding non-disbursable financial aid such as work study) up to 10 days before the first date of the semester provided all financial aid requirements are met. For students enrolled in a combination of sessions (i.e. 2 week, 4 week, 7 week, etc.), financial aid funds will not pay to the student account until the student reaches the appropriate enrollment status (usually full time). Financial aid may be based on the number of registered credits and/or on-campus housing status at the time of disbursement. Some financial aid applies only to tuition. You can view your financial aid disbursement on SAIL. Requirements include:

1. Submit all required documents
2. Enrollment in the appropriate number of credits to receive awards on the disbursement date (usually full-time).
3. Satisfy financial aid requirements and fulfill on campus housing status requirements (if applicable).
4. Complete/sign all applicable entrance counseling and promissory notes (if applicable).
5. Enrollment in a qualifying program.

If financial aid requirements are met after the date financial aid is scheduled to pay, financial aid will disburse within 2 weeks after satisfying requirements. If you receive a financial aid disbursement and a refund and drop a class, withdraw from the university, or drop below your eligibility for financial aid before the first date of the semester, your financial aid may be canceled or adjusted and you will be required to return any funds refunded to you, as well as funds due to the University.

Financial aid is finalized based on your number of registered credits on the last date to drop a class with a 100% refund. Credits added after the date to drop a class with a 100% refund are not considered for financial aid with the exception of student loans which disburse based on your number of registered credits at the time of the disbursement. If you receive a financial aid disbursement and drop a class between the disbursement date and the last date to drop a class with a 100% refund, your financial aid might be reduced.

Direct Loans require a minimum enrollment of at least half-time. If your enrollment is less than half-time and you withdraw, your Direct Loan will be canceled.

If a disbursement is made from a Federal Direct Loan, you (and your parent, if your parent received a PLUS loan) can cancel or reduce the loan by notifying the Financial Aid Office in writing within 30 days of the disbursement notification. The loan will be cancelled or reduced and you will be billed for the amount owed to OU. Notifications received after 30 days will not be processed.

If you are considering dropping a class, you are encouraged to discuss your circumstances with a financial aid administrator.

Financial aid refunds

If financial aid exceeds allowable charges (i.e., tuition, on-campus housing), you (or your parent, if your parent received a PLUS loan) will receive a refund to pay your other education related expenses. If you expect to receive a refund, you are encouraged to complete an "Authorization Agreement for Direct Deposit of Any Non-Payroll Payments from Oakland University" form allowing OU to direct deposit your refund into your bank account. The form is available at oakland.edu/financialaid/forms. Direct deposit is not available for a parent receiving a refund from a parent PLUS loan.

Refunds are direct deposited or mailed to the student (and/or parent) within 14 days after the date financial aid was disbursed to the student account. If a refund is issued while there are unpaid charges on the account, a hold will be placed on the account that will prevent registration, transcripts, diplomas, or other statements of records. If any charges are incurred on the account after financial aid has been refunded, it is the student responsibility to pay the additional charges.

Purchasing books

If the student is planning to purchase books with a financial aid refund, it is important for the student (or parent, if the parent received a PLUS loan) to expect the refund only after all financial aid requirements have been met and institutional tuition and on-campus housing charges have been paid. The refund might be issued after classes begin.

Billing and payments

Grants, scholarships and loans are reflected on your electronic bill (eBill) and deducted from any university allowable charges, provided that all financial aid requirements are met. If you receive an eBill with an amount due, it is important for you to pay your bill by the due date. If you have an amount due and you are expecting to obtain financial aid to pay your bill and your financial aid is not reflected on your bill, you must pay your bill by the due date. Common reasons why financial aid is not on the bill notification are: did not yet apply for financial aid, recently applied for financial aid, did not complete financial aid requirements, recently submitted financial aid documents. It is important to provide the Financial Aid Office with adequate processing time. A 1½% monthly late payment penalty is assessed on any unpaid student account balance.

Payments can be made electronically through eBill at ebill.oakland.edu (you will need your Grizzly ID and 6 digit SAIL PIN. The eBill system offers students the ability to:

- View current and historical billing statement
- Save most common payment methods
- Sign up parents and grandparents as authorized users
- Schedule payment for a date in the future
- Make payments from checking, savings account, credit card, and debit card
- Enroll in a payment plan

Payments can also be made by mail or in-person at the Cashier's Office Oakland University, 120 North Foundation Hall, 2200 Squirrel N. Squirrel Rd., Rochester, MI 48309-4401. If paying by mail, allow 5-6 days for mail delivery. All payments should include the Grizzly ID to insure correct and timely processing. Photo identification will be required if paying in-person.

Payments made from a business or corporate account will be reflected as an outside resource and counted as a financial aid resource when determining eligibility. Outside resources will be included in the federal 1098T issued at the end of the calendar year. Sign up for the OU Payment Plan each semester and spread your tuition, on-campus housing and other charges into several smaller payments. To enroll or learn more, visit oakland.edu/paymentplan.

Miscellaneous financial aid information

1. You must not be in default on any federal educational loans or owe any refunds on federal grants received at post-secondary institutions.

2. You may use financial aid funds for educationally related expenses incurred at Oakland University.
3. Some financial aid applies only to tuition.
4. All financial aid awards are contingent upon federal, state and institutional appropriations and/or funding.
5. If you or a parent (if applicable) provide false or misleading information, your financial aid will be canceled.
6. Any error made by the university in determining eligibility for aid or in the amount of aid disbursed will be corrected. If an error should result in an overpayment, you will be billed for the excess amount you received.
7. Endorsement programs, second majors, professional development, non-degree, continuing education, and self-enrichment programs do not qualify for financial aid.
8. The Family Educational Rights and Privacy Act (FERPA) give students access to their educational records and limits the release of this information without their written consent with the exception of Oakland University's directory information. The Financial Aid Office will release information from a student's file only to members of the University community or its agents or public agencies who request pertinent financial aid records to conduct required University business. The Financial Aid Office reserves the right to request identification before releasing any student financial aid information or records.

Federal Financial Aid Recipients: Return of Federal Title IV

When an eligible federal Title IV financial aid student withdraws (officially or unofficially) from all classes before 60% of the semester is complete during an enrollment period in which attendance has begun, federal regulations require Oakland University to determine the amount of financial aid earned. A student is only eligible to retain the percent of Title IV aid earned that is equal to the percentage of the enrollment period that was completed by the student. For students enrolled solely in courses that are less than the 15-week full semester, the enrollment period is adjusted to reflect the length of the courses. The unearned Title IV aid must then be returned to the appropriate federal aid program(s) which may result in the student owing financial aid funds to the University, the federal government, or both. If more than 60% of the enrollment period has been completed by the student, none of the Title IV aid needs to be returned.

Federal Title IV financial aid funds include: TEACH, Federal SEOG, Federal Pell Grant, Academic Competiveness Grant (ACG), National Science and Mathematics Access to Retain Talent (SMART) Grant, Federal Perkins Loan, and Federal Direct Subsidized, Direct Unsubsidized and Direct PLUS (Parent or Graduate) Loans.

The following steps determine the amount of Federal Title IV financial aid a student has earned up to the time of withdrawal and the amount that is unearned and needs to be returned:

1. **Calculate the percent of the enrollment period completed by the student**. Divide the number of calendar days the student attended* by the number of calendar days in the enrollment period (less any scheduled breaks of five days or more). If the calculated percent exceeds 60%, the student has earned all Title IV aid for the enrollment period.
2. **Calculate the amount of earned Title IV aid**. Multiply the percent of the enrollment period completed by the total Title IV aid disbursed or could have disbursed according to late disbursement rules.
3. **Calculate the amount of unearned Title IV aid**. Subtract the amount of earned Title IV aid from the total amount of federal aid disbursed. The difference must be returned to the appropriate Title IV program by the University or by the student.

*If a student who began attendance and has not officially withdrawn fails to earn a passing grade in at least one course during the enrollment period, grade reports from the class professor will verify the last date of attendance. If a professor does not have a record of class attendance, the midpoint of the semester will be used to calculate the percent of the enrollment period.

Oakland University notifies students with details of their earned and unearned federal Title IV financial aid. Students are provided with instructions related to repaying the funds to the University or to the federal government. In some instances a late disbursement of earned Title IV aid can be made to the student. When a student has withdrawn and a credit balance is created, a Return of Title IV calculation must be performed before any credit balance may be refunded. Any Title IV credit balance must be allocated first to repay any grant overpayment owed by the student as a result of the current withdrawal.

Funds returned (by the University and/or the student or parent) must be allocated in the following order:

1. Federal Unsubsidized Direct Loan
2. Federal Subsidized Direct Loan
3. Federal Perkins Loan
4. Federal Direct PLUS Graduate Loan
5. Federal Direct PLUS (Parent) Loan
6. Federal Pell Grant
7. Academic Competitiveness Grand (ACG)
8. National Science and Mathematics Access to Retain Talent Grant (SMART)
9. Federal Supplemental Educational Opportunity Grant (SEOG)
10. Teacher Education Assistance for College and Higher Education Grant (TEACH)

Unearned loan funds owed to the federal government are repaid according to the terms of the loan promissory note. Grant funds are owed directly to the federal government. The student is required to repay only 50% of the grant overpayment. If the student does not repay a federal grant, the student is not eligible for federal Title IV funds at any school until the overpayment is paid. The student may also owe funds to Oakland University. Official withdrawal procedures are available on the Office of the Registrar website at oakland.edu/registrar.

Withdrawing from classes may impact the receipt of future financial aid. Students should be familiar with the Financial Aid Satisfactory Academic Progress Policy, which is available on the Financial Aid website at oakland.edu/financialaid.

Students are strongly encouraged to contact the OU Financial Aid Office prior to withdrawing from classes to obtain information on the effects of withdrawing. Many times a withdrawal requires a student to refund Oakland University and/or the federal government a large portion of the financial aid that had been disbursed. Examples of the federal financial aid refund policy are available in the Financial Aid Office.

Example of a return of Federal Title IV financial aid funds calculation:

$2,026	Institutional charges
$1,000	Federal Subsidized Direct Loan
800	Federal Pell Grant
$1,800	Total Federal Title IV aid disbursed
-$ 2,026	Institutional charges
$ 226	Institutional charges owed and paid by the student

Student withdrew on 38th day of 107 day enrollment period.

38/107 = 35.5% earned
100% - 35.5% = 64.5% unearned

Amount of Title IV aid unearned = $1,800 x 64.5% = $1,161.00. **This aid must be taken away from the student's account**.

Adjustment to financial aid on the student account
$1,000 returned to the Federal Subsidized Direct Loan program by OU
$ 161 returned to the Federal Pell Grant program by OU

End result of withdrawing
$1,161 unearned aid that was reversed off of the student account; student owes this amount to OU and will be billed. A hold will be placed on the student record preventing future registration, graduation and transcripts.

Standards of satisfactory academic progress for financial aid

Oakland University is committed to providing fair and equal access to resources to meet educational costs for students. To receive federal, state and institutional financial aid at Oakland University, students must meet the standards of satisfactory academic progress (SAP).

Federal regulations require the Financial Aid Office to monitor the academic progress of students at least once a year. The complete Oakland University academic record including transfer credits is considered regardless of whether or not financial aid was received. Students who fail to achieve the minimum standards may lose financial aid eligibility.

The SAP standards for financial aid are applicable to but not limited to all federal, state and Oakland University awards.

Some awards have standards stricter than the financial aid satisfactory academic progress standards. The standards vary for each scholarship and are provided in the scholarship descriptions.

Three criteria must be met to satisfy the standards of satisfactory academic progress:

1. Grade point average
   Students must maintain a cumulative Oakland University' grade point average (GPA) of 2.00 at the end of each winter semester. Students who fail to meet this requirement are placed on financial aid probation and must meet the GPA requirement by the end of the next enrolled semester at OU. Students can receive financial aid while on probation. However, students who fail to achieve a 2.00 GPA while on probation become ineligible for financial aid the following semester at OU. The minimum GPA requirement for graduate and doctoral students is established by the academic unit.

2. Credit hours
   Students must complete a minimum of 67% of cumulative credit hours attempted including transfer credits by the end of each winter semester. (Second Undergraduate and Teacher Certification students are considered to have attempted 92 credits even though fewer credits apply to the program of study. Post Baccalaureate eligibility is for one continuous calendar year after receiving a degree.) Students who fail to meet this requirement are placed on financial aid probation and must meet the credit hour requirement by the end of the next enrolled semester at OU. Students can receive financial aid while on probation. However, students who fail to complete at least 67% of attempted credit hours while on probation become ineligible for financial aid the following semester at OU.

3. Maximum credit hours
   Students must complete their academic program by the end of the semester in which 150% of attempted credits including transfer credits is reached. Second Undergraduate and Teacher Certification are considered to have attempted 92 credits even though the number of transfer credit hours is less.

Students withdrawing from one or more classes during a semester must meet the credit hour requirement. Students repeating courses are eligible for financial aid. However, students can receive credit for a class only once. When a class is repeated, it does not increase the total number of credits completed unless the course was failed in the previous attempt. Incomplete classes with an "I" or "P"

grade do not count in the GPA or credit hour requirements. When the class is completed, the credits and GPA are considered. Financial aid can not be received retroactively due to completion of incomplete classes. Audit courses, competency credit and continuing education credit do not qualify for financial aid.

Students may automatically regain financial aid eligibility by achieving a 2.00 minimum Oakland University GPA and/or successfully completing a minimum of 67% of attempted credits hours including transfer credits at their own expense. Financial aid may be received in the next semester of enrollment when the requirements are satisfied. Financial aid can not be received retroactively for any semester in which satisfactory academic progress was re-established.

Students may appeal the loss of financial aid eligibility due to a deficient GPA or credit hours if special circumstances exist such as the death of a close relative of the student or an injury or illness of the student. Appeals must be submitted to the Financial Aid Office. The deadline to appeal is the last published day to drop a class with a 100% refund for the semester in which it applies. Approved appeals are not retroactive to prior semesters. A Standards of Academic Progress for Financial Aid Appeals Committee reviews satisfactory academic progress appeals. Decisions of the committee are final. Students are responsible for providing adequate information with the appeal for the committee to consider. Decisions will be made based on the information provided without any subsequent meeting on the part of the committee.

Financial aid appeal procedure

A student can file an appeal based on a grievance of an institutional policy, procedure or administration. Students may not appeal or grieve federal or state regulations or guidelines; however, we will provide students with federal and state information as requested.

The procedures for appealing institutional financial aid policies, procedures and administration are as follows:

1. The student provides a written appeal or grievance to the Financial Aid Appeals Committee, c/o Director of Financial Aid, Financial Aid Office, Oakland University, 120 North Foundation Hall, Rochester, MI 48309.
2. The Financial Aid Appeals Committee reviews the appeal or grievance and researches and investigates the issue within 14 days.
3. If appropriate policies, procedures and administration have been applied, a Financial Aid administrator sends a response to the student in writing (or email) providing the student with information, details and rationale of the explanation.
4. If the Financial Aid administrator staff needs additional information, the student will receive a request in writing (or email). The deadline date to respond will be provided to the student. If additional information determines a change in a previous decision, adjustments will be made and the student will be notified in writing (or email). If the student does not respond to a request for additional information by the deadline, the appeal or grievance will be canceled.
5. If the appeal or grievance concerns a policy, procedure or administration of another department, the Financial Aid appeals committee will confer with that department on the student's behalf or the student will be referred directly to the department.
6. If an error is made by the Financial Aid Office, the error will be corrected and the student will receive a written (or email) response.

Student Affairs and Enrollment Management

The Division of Student Affairs provides an array of out-of-class support services, leisure activities and educational programs that complement and enhance students' educational experiences. The Office of the Vice President for Student Affairs and Enrollment Management is located in 144 Oakland Center (248-370-4200). Brief descriptions of services for students follow.

Academic Skills Center

The Academic Skills Center, 103 North Foundation Hall, (248) 370-4215, offers free peer tutoring and supplemental instruction for registered Oakland University students. Tutoring is available by

appointment, and walk-in for most 100-200 level courses. In both cases, the sessions may be group sessions. The center also offers Supplemental Instruction (SI) for some courses. This program provides organized study sessions two or three times a week to students enrolled in specific sections of courses which have been assigned an SI. SI sessions focus on course-specific study skills that help students review notes, understand and apply key concepts, prepare for tests and develop critical reasoning skills. Attendance at these sessions is voluntary.

In addition to tutoring and SI, the center coordinates study skills/test-taking presentations through workshops offered in Fall and Winter semesters. Study skills handouts are available in the Academic Skills Center, as well as CDs and DVDs to further support development of effective study strategies. Some computer-aided instructional materials in academic disciplines are also available in the center.

The center staff also monitors the progress of students in Dismissal Option Status (DOS) and works with other students in academic difficulty through the Probation Outreach Program. Both of these programs provide academic support, strategies for academic success and resource referrals for students.

During fall and winter semesters, the Academic Skills Center is open from 8 a.m. to 5 p.m. Monday through Friday. Additional tutoring is available in 117 Vandenberg Hall from 5 p.m. to 10 p.m., Monday through Thursday. Other times are available by appointment. Summer session tutoring is available by appointment only Monday through Thursday, 8 a.m. to 5 p.m.

Advising Resource Center

The Advising Resource Center, in 121 North Foundation Hall, (248) 370-3227, provides academic information and assistance to freshmen and sophomore students and to undergraduates who have not yet decided on a major. Students can receive help in course selection and declaration of a major as well as career exploration as it relates to majors at the university. For freshmen students who declare an "undecided" major, advising from the Advising Resource Center involves a minimum of two appointments during the student's first year. All undergraduates, regardless of academic major, may utilize the career exploration services of the Advising Resource Center.

Campus Recreation

The Department of Campus Recreation provides facilities, programs and services to meet the recreational, fitness, wellness and personal development needs of the Oakland University community. The goal of campus recreation programs is to enhance the quality of student and campus life through knowledge, opportunities, interests and behaviors that promote healthy lifestyles and to encourage making a regular recreational activity an element of daily life.

Campus Recreation programs include intramural sports, club sports, fitness assessment and programs in group fitness sessions and clinics, wellness programs, aquatic programs, and informal sports that are self-directed and self-paced. Recreation Center facilities include the recreation gym with three basketball/volleyball courts, a one-tenth mile four-lane running track, three racquetball/walleyball courts, four multi-purpose rooms, a 7,500 square foot fitness center with over 70 pieces of cardio-vascular and strength equipment, wellness center, 50 meter pool, spa and bubble pool in the aquatic center, two class/meeting rooms and locker rooms. Campus Recreation also oversees the Upper Pioneer Fields.

Access charges to the recreation center are included in a student's tuition bill during the semester they are enrolled. Further information about eligibility for family members, facility hours or program offerings may be obtained at the facility's Welcome Center or by telephone at (248) 370-4732.

Career Services

The Career Services Department, 154 North Foundation Hall, (248) 370-3250, assists current students and alumni to develop professionally by providing career advising, job search resources and guidance, career-related programming, career fairs, and an online job posting database among many other services.

Whether you are a current student seeking internship opportunities to compliment classroom experience or a graduating senior or alumni seeking professional employment, Career Services can provide the resources and connections to help you succeed.

Visit oakland.edu/careerservices to find out more about our services and programs or to mark your calendar to attend our events, seminars, and information sessions and check out the extensive online resources.

OU students and alumni can search our comprehensive job search site at OUCareerLink.com where you can search for full-time, part-time, internship, co-op, and on-campus opportunities. Updated daily and accessible 24/7 you can post your resume for on and off campus open positions.

To take advantage of services available or to schedule an appointment, call (248) 370-3250.

Center for Multicultural Initiatives

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

Counseling Center — Graham Health Center

The Counseling Center, located in the Graham Health Center, provides short term personal counseling, psycho-educational testing and consultations to university students and staff. The personal counseling services provide treatment for relationship difficulties, depression and anxiety, eating disorders, grief and loss, sexual assault, stress disorders, underachievement, academic difficulties career/major difficulties, and family or marital problems. Additionally, psychiatric services are available for students who require medication as an adjunct to counseling. Evaluations regarding learning problems or disabilities and ADHD are available through the psychological testing services. For students experiencing drug or alcohol problems, assessment, counseling and referral services are available. The Counseling Center engages in many outreach activities including screenings for depression, anxiety, eating disorders and alcohol abuse. Strict rules of confidentiality are observed.

The first six counseling sessions for students are free. After that, services are available at a nominal cost. Students may contact the center direct at (248) 370-3465.

Dean of Students

The dean of students serves as an advocate for the development of programs and services to meet the needs of students. As such, the dean of students monitors the university environment, administers the conduct code and judicial system, assists with student life policy development and serves as an advocate for students facing academic, financial and personal problems while enrolled at Oakland University. The Dean of Students office is located in the Student Affairs Office at 144 Oakland Center, (248) 370-3352.

Disability Support Services

Advocacy and support services are provided through the Office of Disability Support Services located in 121 North Foundation Hall. Services include, but are not limited to, priority registration, alternative testing arrangements, assistive technology, alternative media formats, assistance in identifying volunteer note takers and readers, electronic door openers and sign-language interpreting services. Students are encouraged to schedule an appointment six weeks prior to the semester and bring documentation of their disability. To register or for information, contact the DSS Office at (248) 370-3266 (voice) or (248) 370-3268 (TDD). In cases involving alleged illegal discrimination or harassment, the student should contact University Diversity & Compliance, 203 Wilson Hall, (248) 370-3496.

Health Services

Graham Health Center provides convenient, affordable, high quality health care on campus for the OU community. We are staffed by certified Nurse Practitioners and Physician Assistants who have extensive education and clinical training. A physician visits weekly to review cases, consult, and see patients who require physician care. Most health insurances are accepted and low cost student health insurance is available for purchase. Services at Graham Health Center include:

- Physical exams for nursing, employment and sports
- Treatment for illness and minor injuries
- Woman's Health Care
- Prescription and over-the-counter medication
- Laboratory and other diagnostic testing
- Immunizations and allergy injections

For more information call 248-370-2341 or visit us at oakland.edu/ghc.

ID Card Office

The ID Card Office is home of the SpiritCard and SpiritCa$h. The SpiritCard is the official identification card for Oakland University. Your SpiritCard provides access to your SpiritCa$h account, library materials, printing on campus, meal plans, and after-hour access to C@fé O'Bear's and your residence hall. SpiritCa$h is an on-campus only pre-paid debit card that can be used at various campus locations including the OU Bookstore, campus dining locations including Pioneer Food Court, CSA Service Window, vending, Print Wise stations and more.

The SpiritCard has an additional feature called the SpiritCard PLUS. Oakland University has partnered with Credit Union ONE to offer the SpiritCard PLUS feature which enables your SpiritCard to be used as a MasterCard Debit card and ATM card free of charge wherever MasterCard is accepted and at all Credit Union ONE ATMs. There are four Credit Union One ATMs on campus, and as part of the Co- Op Network, you can also go to any Credit Union ATM and use it free of charge. To activate the SpiritCard PLUS feature as a student of Oakland University, you would simply open a savings account with a $5 balance and a totally free checking account. There is no minimum balance requirement or minimum amount needed to open the checking account, though there is a $1.00 credit union membership fee. You will get your first box of standard checks for free, have access to free online banking and online bill pay, plus get the added convenience of carrying one card on campus and off. Your SpiritCard makes it happen!

International Students and Scholars

Services are provided by the Office of International Students and Scholars located in 157 North Foundation Hall. Orientation, advising, assistance with preparing documents for the United States Citizenship and Immigration Services (USCIS), sponsoring agencies and home country governments are among the available services. International students are required to meet with a staff member prior to registration. Any international student or exchange visitor requiring assistance may contact the office at (248) 370-3358.

Lowry Center for Early Childhood Education

The Lowry Center for Early Childhood Education offers early childhood education programming to children from eighteen months to five years of age. The Lowry Center provides innovative equipment, materials, and practices to cultivate the development of young children. Lowry is part of the School of Education and Human Services at Oakland University. It is administered by the Department of Human Development and Child Studies and is licensed by the State of Michigan.

The mission of the Lowry Center for Early Childhood Education is to provide an exemplary laboratory center for early childhood education for the broad university community and the neighboring communities. The Lowry Center is dedicated to the mission of fostering the cognitive, emotional, social, creative and physical growth and development of each individual child in a supportive and stimulating environment. The facility is designed to promote best practices in the field of Early Childhood Education. Each classroom is equipped to meet the developmental needs of that particular age group.

The Lowry Center is located in Pawley Hall on Pioneer Drive. Registration is ongoing throughout the year, based on availability. The academic year program runs from September through mid-June, and the summer camp program runs during July and August. A variety of scheduling options are available, including half-day and full-day choices for 2, 3 or 5 days per week. For information, contact 248-370-4100.

The Department of Human Development in the School of Education and Human Services operates the Lowry Center for Early Childhood Education for young children of students, faculty, staff and the community.

The center houses four programs (Prekindergarten, Preschool, Young Preschool and Toddler) and is located in the new SEHS building on the first floor.

The Prekindergarten program is an early childhood program that offers full- (9-4) and half- day (9-12 or 1-4) programs for children who are 4 years old by September 1 through 5 years 11 months.

The Preschool program is an early childhood program that offers full- (9-4) and half-day (9-12 or 1-4) programs for children who are 3 by September 1 through 5 years 11 months. The Young Preschool Program is for children who are 2 years 6 months by September 1 up to 3 years 6 months. Children can enroll from 9:00 a.m. to 12:00 p.m.; 9:00 a.m. to 2:00 p.m. or 9:00 a.m. to 4:00 p.m.

The toddler program is for children 18 months to 2 years 5 months. Children can enroll from 9:00 a.m. to 12:00 p.m.; 9:00 a.m. to 2:00 p.m. or 9:00 a.m. to 4:00 p.m. The curriculum is designed to stimulate and support the developmental growth of young children.

Aside from regular program hours, extended hours are available from 7:30-9 and 4 -5:30 at an additional cost.

The Center operates weekdays from 7:30 a.m. to 5:30 p.m. Space in all programs is limited, but registration is on-going throughout the year based on availability. The center offers grants to assist low-income students with their child's tuition costs at Lowry. Lowry also offers a summer day camp program for children 18 months to 6 years old. Please call (248) 370-4107.

Oakland Center

The expanded Oakland Center serves students, faculty, staff, alumni and guests of Oakland University by offering a wide variety of social, recreational, cultural and entertainment programs. Open seven days a week and located in the heart of the campus, the Oakland Center features a food court including brand name eating establishments, such as Chick-Fil-A, Famous Famiglia and Subway. The University Bookstore, operated by Barnes and Noble, is housed in the Oakland Center, Credit Union ONE and the Student Technology Center. Other student services include: vending machines, a campus welcome center, a games room, a public telephone, newspaper machines, computer labs, e-mail kiosks, wireless Internet systems, Cafe' O'Bear's coffee shop/cyber café with 24 hour computer access, a TV lounge and meeting/multipurpose rooms. Also located in the Oakland Center are the Administration and Reservations Office, the Center for Student Activities and Leadership Development, the Center for Student Affairs, Dean of Students, Chartwell's food service, the ID Card Office, student organizations, University Congress, Student Program Board, the Gender and Sexuality Center, The Oakland Post student newspaper and WXOU-FM, the student operated radio station.

Office of Undergraduate Admissions

The Office of Undergraduate Admissions, 101 North Foundation Hall, (800) OAK-UNIV or ouinfo@oakland.edu provides support and services to prospective and admitted undergraduate students and their families through recruitment activities and on-campus programming, including Discover OU, Go for the Gold, Transfer Open House, welcome receptions, overnight visits and campus tours. The

office also awards merit scholarships to qualified admitted students and sponsors orientation programs (please see the New Student Orientation sect.). For more information,**visit oakland.edufuturestudents**.

New Student Orientation

Orientation and New Student Programs offers many programs to assist new students and their families with their transition to Oakland University. Services include New Student Orientation, Transfer Student Orientation and Parent Orientation. All undergraduate students new to Oakland University are required to participate in an orientation program before their first registration. During orientation, students are advised on course selection, informed about important policies and procedures, given information on services and activities available and introduced to the academic environment. At the conclusion of orientation, students register for classes. Orientations are also held for the parents of new first-year students. For further information, contact Orientation and New Student Programs, 105 North Foundation Hall, (248) 370-GOLD or gold@oakland.edu or view information online at oakland.edu/newstudents.

New Student Programs

Besides offering orientation programs for students and parents, Orientation and New Student Programs provides other services to assist new students and their parents in making a smooth transition to the university. Services include New Student Convocation, Collegiate Communication 101, Connections, My FYE, Bear Essentials E-publication, "The Oakland Parent" newsletter, and the New Student and Parent Resource Line. For further information, contact Orientation and New Student Programs, 105 North Foundation Hall, (248) 370-GOLD or gold@oakland.edu.

Placement Testing

Some general courses at Oakland, including mathematics, modern languages and writing and rhetoric, require students to take placement exams or to meet certain criteria before enrolling in these courses. Orientation and New Student Programs assists in coordinating placement testing for new students. Math placement exams can be taken by appointment in the Department of Mathematics and Statistics, 368 Science and Engineering Building, (248) 370-3430. The Department of Modern Languages and Literatures, 418 Wilson Hall, (248) 370-2060 offers language testing in French, German and Spanish year round. The tests can be taken on a personal computer or at any computer lab on campus. The test can be accessed at oakland.edu/languagetest. The password is grizzlies 1. Students with questions about placement in first year writing should consult the Department of Writing and Rhetoric, 378 O'Dowd Hall, (248) 370-2746. For more information about placement testing, visit oakland.edu/courseplacement or contact Orientation and New Student Programs, 105 North Foundation Hall (248) 370-GOLD or gold@oakland.edu.

Residence Halls and University Housing

Oakland University's residence halls and apartments offer a special way of life for more than 2,100 students each year: the chance to live with different people, develop social and leisure interests, begin lifelong friendships and become involved as a student leader. Many students find it a rewarding experience, helping to further academic success.

Oakland's housing community has a distinct character and is situated only a five-minute walk from classrooms, the library and recreational facilities. There are many features, some of which are: staff who work and live in each hall, complete laundry facilities, reception desk and mail service, cable television, internet service, meal plans to fit student lifestyles, mathematics and science tutoring, computer labs, programs and workshops. University housing offers a variety of living options including living-learning communities, student apartments, and traditional residence halls. Rooms are furnished with desks, bookshelves, wastebaskets, bulletin boards, single beds, dressers, closets, lighting and window blinds. Residents must provide their own pillows, blankets, sheets and towels. Lamps, electric blankets, clocks, radios, televisions, small refrigerators and computers are allowed subject to safety regulations, limitations of space and consideration of others. Washers and dryers are available in each building free of charge.

Maintenance service is provided by the university in common areas. Residents assume responsibility for cleaning their own rooms. Food service for residents is provided by a professional food service company. Residents have the opportunity to select from a variety of meal plans, which are set in accordance with student needs and interests.

To be eligible for university housing, students must be formally admitted in a degree-seeking program and registered for at least 8 credit hours each semester. All unmarried students are required to live in a residence hall unless they have earned 56 credit hours or can document that they live with a parent or legal guardian. Requests for exceptions to this policy will be considered. Upon their acceptance at Oakland University and the submission of a valid housing contract, students' reservations will be processed by the Housing Office. Notification of assignment will be given approximately two weeks prior to the beginning of each semester. Returning students may renew their housing contracts through the Housing Office. Room and board is not provided between semesters or during official recesses listed in the university calendar for students living in the residence halls. Students living in University Student Apartments are permitted to stay in their apartment between semesters and during official university recesses.

For more information, please contact the Department of University Housing, 448 Hamlin Hall, Oakland University, Rochester, MI 48309-4401, or call (248) 370-3570 or fax to (248) 370-3340 or visit our Web site at oakland.edu/housing.

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, behavioral issues, and career exploration, to name a few.

Career counseling is also offered for adolescents and adults. 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 on 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**.

Student Activities and Leadership Development

The Center for Student Activities and Leadership Development, 49 Oakland Center, (248) 370-2400, more popularly known as the CSA Office, plans and publicizes a wide variety of out-of-classroom activities. They include campus-wide social, educational and cultural programs, lectures, concerts, workshops and retreats, as well as leadership, diversity and community service opportunities. Oakland University has over 180 registered student organizations, which represent a broad range of interests including academic, community service, engineering, honor societies, multicultural, political, religious, social, club sports, and Greek fraternities and sororities. Students unable to find an organization serving their particular interests are encouraged to form new groups.

Many student services are provided through the Center for Student Activities (CSA). These services include use of computers, locker rentals, ticket sales and sign-ups to campus activities, discounted tickets to Metropolitan Detroit theaters and sporting events, student organization registration information, banners, approval for posting printed materials around campus, and commuter programs and services. The CSA Office also oversees the Student Resource Center, Leadership and Volunteer Center, and Gender and Sexuality Center. The CSA Office coordinates annual programs such as Welcome Week, Week of Champions at Oakland University (WOCOU), Make the Commuter Connection Day, Meadow Brook Ball, Women's History Month, International Night, and American Red Cross Blood Drives (five

times a year). Additionally, the CSA Office assists in planning awareness weeks, cultural celebrations, Greek Week, OU Grizz Madnezz, and OU Homecoming.

Oakland University Student Congress (OUSC) is an annually elected, campus-wide governing body that addresses student issues and concerns. In addition to its administrative duties, University Student Congress oversees the Student Activities Funding Board (SAFB), which allocates operating funds to recognized student organizations, and the Student Program Board (SPB), which is responsible for films, lectures, concerts and other major social events on campus. The Oakland Post is the student campus newspaper, published weekly during the academic year. WXOU 88.3 FM is the student radio station. Student Video Productions (SVP) provides opportunities to learn about the video production industry.

Students are highly encouraged to get involved in out-of-classroom programs, activities and events offered between classes, in the evening, and on the weekends. The CSA Office provides students with educational, social, leadership, diversity and community outreach opportunities to complement their academic experience while attending Oakland University.

For more information on how to become involved, contact the Center for Student Activities, 49 Oakland Center, call (248) 370-2400, fax (248) 370-4337, email csa@oakland.edu, or access the CSA Web site at: **oakland.edu/csa**.

Student Technology Center

The Student Technology Center (STC) serves as the headquarters for the promotion, instruction and support of technology literacy to support classroom learning. The STC offers individual and group training and hands-on learning experiences to meet student's technology needs. Additionally, students can borrow technology equipment from the Center. The Student Technology Center is located at 40 Oakland Center, (248) 370-4832.

Testing Services

The Registrar's Office administers the GRE, LSAT, PCAT, and MPRE. The Department of Human Development and Child Study administers the ACT, NCE and MAT (Miller Analogies Test). Information and materials on these tests are available.

Department of Pre-College Programs

The Department of Pre-College Programs (106 North Foundation Hall, 248-370-4455) provides programs to middle and high school students in the metropolitan area. The programs are designed to offer academic, social, career and cultural enrichment to students. The department employs university students as tutors, peer mentors, and office assistants.

Programs

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) - Offers a variety of academic and social programs and services to approximately 800 eleventh graders in the Oak Park and Pontiac school districts (school year 2010-11). The students will receive academic and social programming through their senior year of high school with the opportunity to qualify for an academic scholarship.

The Wade H. McCree Scholarship Program - Provides academic and social support to public school students in Detroit, Pontiac and Oak Park that are selected by their school districts. McCree students are eligible for full tuition scholarships to Oakland University if they meet the scholarship criteria of a 3.00 GPA and a composite score of 21 on the ACT.

The Detroit Compact Scholarship Program - Designed to assist Detroit Public School students to achieve job and college readiness. Oakland University and The Detroit Compact Partnership (a voluntary group of business, community organizations, and government agencies) funds at least five scholarships annually. The scholarship criteria are a 3.0 GPA and a composite score of 21 on the ACT.

Avondale - OU College Adventure - For the eleventh year, the Pre-College Programs staff and OU's faculty have provided a two day residential program to sixth grade students from the Avondale Meadows Middle School in Auburn Hills. The program includes academic presentations by OU faculty and staff, a Music, Theatre and Dance event, time in the recreation center, and an overnight stay in the residence hall. Funding for the program is provided by the school, students and their families.

Public Schools Academies - Building Bridges Summer Camp - Pre-College staff and PSA provide a three-night residential camp that emphasizes the importance of a college education to the sixth through eighth graders enrolled at OU charter schools. Using an interdisciplinary approach, participants will engage in special learning activities taught by OU professors and graduate staff. Activities are designed to stimulate interest in science and engineering, cultural awareness as well as further develop higher order thinking and problem-solving skills. Camp experience will also include special enrichment workshops, tours of the campus, off-campus field trip, and fun recreational opportunities.

Waterford School District – Academic and Character Education (ACE) Program - This program provides students with an opportunity to experience college life and be involved in hands-on activities to learn about different careers such as engineering, criminal law, photojournalism, art, theater, music, education, business, and computers. Pre-College staff and faculty make available sessions that focus on specific topics related to post-education training as well as connecting the relevance to the students' high school experiences. Student will also participate in a mentoring program with OU students.

Clinton River Water Festival at OU - Provides an educational and enjoyable learning experience for fifth-grade students from the Clinton River Watershed community schools in Oakland County. The festival design allows students to learn about the central role water and the Clinton River play within the region. Some of the topics that are explored during the festival included: storm water, waste water treatment, soil erosion, wetlands, creeks and streams, habitat, as well as sources of pollution. Several governmental and environmental agencies work with Pre-College Programs to plan and execute the festival at OU.

Detroit Area Pre-College Engineering Program (DAPCEP) - DAPCEP's goal is to give underrepresented students the interest and preparation needed to succeed in a University-level science or engineering curriculum. The program offers intensive computer, technology, science, math, and engineering training from experienced professionals and instructors in their respective fields. Students receive hands-on opportunities in work environments in addition to classroom-based curriculum activities.

Oakland University College Day Program – Provides students at the middle and high school level with a one-day college experience. The mission is to provide opportunities for students to discover first- hand the potential of a college education and to expose students to the information, knowledge, and skills they need to prepare for college entry and success. Intended outcome is to increase the number of students going to college.

Residential Program (all school districts) **-** The Residential Program provides pre-college students with an introduction to higher education. Students reside overnight in our residence halls to "get a taste of college life." Highlights include:

Career explorations **-** academic presentations provided by various professional schools and academic departments at Oakland University; **Informational Programs -** informational sessions in critical areas such as admissions and financial aid are presented to students; **Campus Tours -** program mentors accompany students, familiarizing them with Oakland University's campus; **Social Activities -** students participate in various activities to enhance their social awareness.

Recreational activities **-** students are able to utilize OU's state-of-the-art Recreation Center. Amenities include a 50-meter pool, racquetball/squash courts, gymnasium, table tennis and strength/cardiovascular training equipment.

Office of Senior Associate Provost

Senior Associate Provost: *Susan M. Awbrey, Ph.D.*

The Office of Senior Associate Provost, OSAP, provides a single point of focus within the administration for undergraduate education at Oakland University. Its university-wide mission spans undergraduate academic experience. The Office is designed to: promote quality and excellence in teaching and learning, encourage innovative ideas and enrichment of the undergraduate curriculum, enhance support services, promote diversity in the curriculum, establish and interpret policy, and provide oversight for campus-wide programs and initiatives. One of the major missions of the office is ensuring the quality of undergraduate programs in collaboration with Oakland University's College of Arts and Sciences and professional schools.

Quality through accreditation

The office of the Senior Associate Provost has oversight of the university's accreditation through the North Central Association of Colleges and Schools, Higher Learning Commission (NCA). (Higher Learning Commission of the North Central Association of Colleges and Schools, ncahigherlearningcommission.org /, (312) 263-0456)

Quality through collaborative governance

The Office of the Senior Associate Provost works closely with standing committees of the University Senate to implement and recognize academic quality. This includes the General Education Committee. OSAP supports implementation of the revised general education program to enhance the core experience for Oakland University's undergraduate students. OSAP works with the Teaching and Learning Committee to identify winners of the Teaching Excellence and Excellence in Teaching awards. These awards are given each year to outstanding full and part-time instructors. Students are encouraged to nominate faculty for these awards. The Senior Associate Provost chairs the University Committee on Undergraduate Instruction. This committee has oversight of university requirements and university-wide curriculum issues. OSAP is responsible for promoting diversity in the curriculum. OSAP works in collaboration with the Assessment Committee, which assesses the impact of academic programs on student learning.

OSAP is also responsible for the decennial review of academic programs that is mandated by the University Senate. At least once every 10 years each academic program comes under review with the goal of enhancing the program's effectiveness and maintaining a university environment of academic excellence.

Quality through special student programs and opportunities

The Office of Senior Associate Provost seeks to increase opportunities for undergraduate students through special programs and opportunities including:

Office of Academic Service Learning

Academic Service Learning is a teaching methodology that utilizes community based partners to help students understand course objectives, new knowledge, and civic involvement. The Office of Academic Service Learning (OASL) seeks to enrich the education of students by providing resources to faculty for creating and improving innovative instructional assignments that advance civic engagement. The OASL strives to provide faculty and students with meaningful academic experiences that allow collaboration with the university and surrounding community. Dr. Scott L. Crabill is the coordinator of this office, (248) 370-3223.

International Experience

OSAP oversees the Office of International Education. This office is designed to expand opportunities for Oakland University students to study abroad. Study abroad offers opportunities for students to expand their awareness of other cultures and to learn about themselves. Dr. Brian Connery is the interim director, (248) 370-4131.

Honors College and Research

OSAP oversees the Honors College (HC). The Honors College is designed to offer a challenging environment to outstanding undergraduate students. The Office of the Senior Associate Provost encourages faculty to engage undergraduate students in research projects and to mentor undergraduate scholarship. The HC maintains a list of faculty mentors willing to involve undergraduate students in research. Dr. Gary Shepherd is the interim director, (248) 370-4450.

Bachelor of Integrative Studies

The Bachelor of Integrative Studies (BIS) reports to the Office of the Senior Associate Provost. The BIS program allows students to create an academic program that meets their educational goals by combining elements from different academic disciplines offered by the University. The creation of a BIS plan provides students with the flexibility to meet their individual academic aspirations. Dr. Scott Crabill is the director, (248) 370-3229.

Quality through development

The Office of the Senior Associate Provost conducts development opportunities for faculty including an annual orientation to acquaint new faculty with Oakland University and to help ensure a productive classroom experience. OSAP also supports the activities of the Teaching and Learning Committee that are designed to increase awareness of effective teaching practices including the Teaching & Learning Newsletter. OSAP supports faculty learning communities.

Quality through accurate student information

The Office of the Senior Associate Provost has responsibility for the production of the Undergraduate Catalog. The Undergraduate Catalog is the student's guide for navigating the educational requirements and opportunities at Oakland University. Understanding the information in the catalog, in conjunction with regular visits to the student's academic adviser, can greatly improve a student's likelihood of success at OU. Irene Fox, assistant to the senior associate provost, coordinates the Undergraduate Catalog, (248) 370-2571.

The Office of the Senior Associate Provost is located in 520 O'Dowd Hall and can be reached at (248) 370-4955.

Graduate Study and Lifelong Learning

Executive Director of Graduate Study: *Claire Rammel, M.A.*

Course offerings and programs of study at the graduate level constitute a major Oakland University enterprise. Most schools and departments offer some form of graduate work leading to advanced degrees. All of the graduate programs have their philosophical underpinning in the university's role and mission statement. Through them, the intellectual and educational needs of students are served in relation to specific careers; cultural heritage is preserved and extended; and new knowledge is produced that is directed toward the extension of frontiers and the solution of problems and issues that confront society as a whole. Programmatic balance is sought to assist in the achievement of these varied objectives. Students are assumed to be full partners in the process of program implementation. Through this partnership, the goals and purposes of graduate education are fulfilled.

Upper-division undergraduates with appropriate credentials, permission of their academic adviser and the department offering the course, may enroll in 500-level graduate courses and use them toward their baccalaureate degrees. The student must complete the 'Undergraduate Permission to Enroll in Graduate Course' form (available on Graduate Study website) and submit to Graduate Study for final approval.

An undergraduate student enrolled in a graduate course is subject to all university regulations affecting undergraduates. The university, by allowing a student to earn graduate credit while still an undergraduate, makes no guarantee of the student's admissibility to any graduate program. Courses completed for graduate credit and used to satisfy baccalaureate degree requirements may not also be used in the future to fulfill the requirements of a graduate degree. Undergraduate students considering a graduate course should consult with their adviser well in advance of the semester.

Undergraduate students, who receive financial aid and do not intend to use the graduate course to satisfy an undergraduate degree requirement, must be enrolled in a minimum full-time credit-hour load (12 credit hours) of undergraduate courses that apply to their approved degree program in addition to the graduate course(s). Graduate courses that students use toward their baccalaureate degree are counted in this minimum 12 credit hours. Students should consult their financial aid adviser.

Graduate degree programs

Doctor of Philosophy: applied mathematical sciences, biomedical sciences (health and environmental chemistry, medical physics, biological communication), education (counseling, early childhood education, educational leadership), music education, reading education, systems engineering, mechanical engineering, computer science and informatics, electrical and computer engineering

Doctor of Nursing Practice

Doctor of Physical Therapy

Doctor of Science in Physical Therapy

Education Specialist: leadership

Master of Accounting

Master of Arts: biology, communications, counseling, English, history, linguistics, mathematics

Master of Arts in Liberal Studies

Master of Arts in Teaching: reading and language arts, secondary education, elementary education

Master of Business Administration

Master of Education: educational leadership, educational studies, early childhood education, special education, teacher leadership

Master of Music: conducting, instrumental performance, music education, piano pedagogy, piano performance, vocal pedagogy, vocal performance

Master of Public Administration

Master of Science: applied statistics, biology, chemistry, computer science, electrical and computer engineering, embedded systems, engineering management, exercise science, industrial and systems engineering, industrial applied mathematics, information technology management, mechanical engineering, mechatronics, physical therapy, physics, safety management, software engineering and information technology, systems engineering

Master of Science in Nursing: adult gerontological nurse practitioner, clinical nurse specialist: adult health, clinical nurse leadership, family nurse practitioner, nurse anesthesia, nursing education, and RN to MSN tracks

Master of Training and Development

Graduate Certificate Programs

Advanced Microcomputer Applications
Clinical Exercise Science
Complementary Medicine and Wellness
Conducting
Corporate and Worksite Wellness
Educational Administration
Exercise Science
Instrumental Performance
International Education
Microcomputer Applications
Music Education
Neurological Rehabilitation
Nursing Education
Orthopedic Manual Physical Therapy
Orthopedics
Pediatric Rehabilitation
Piano Pedagogy
Piano Performance
Statistical Methods
Teaching and Learning for Rehabilitation Professionals
Teaching English as Second Language
Vocal Pedagogy
Vocal Performance

Post-Master's Graduate Certificate Programs

Accounting
Adult Gerontoligical Nurse Practitioner
Advanced Reading, Language Arts and Literature
Business Economics
Conducting
Entrepreneurship
Family Nurse Practitioner
Finance
General Management
Higher Education
Human Resources Management
Instrumental Performance
International Business
Local Government Management
Management Information Systems
Marketing
Music Education
Nonprofit Organization & Management
Nurse Anesthesia

Nursing Education
Piano Pedagogy
Piano Performance
Production/Operations Management
Reading, Language Arts and Literature
Vocal Pedagogy
Vocal Performance

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 role and mission of faculty and professional academic advising at Oakland University is to advise students as they seek to develop academic, career and life goals and establish plans to accomplish these goals. This is a continuous process of discovery, clarification, and evaluation, whereby advisers assist students in identifying possibilities, assessing alternatives, and weighing the consequences of decisions.

Full-time professional academic advisers are available to students in each of the schools, the College of Arts and Sciences, the Bachelor of Integrative Studies office and the Advising Resource Center. Faculty advisers are also available in many majors. For assistance in understanding program admission requirements and enrollment limitations, as well as university and degree requirements, students should consult with professional advisers and/or faculty advisers. While students receive initial advising assistance in orientation, they are encouraged to seek individual assistance as early in their programs as possible and to see their advisers regularly thereafter. Most advisers see students for individual appointments arranged at their mutual convenience, except during busy early registration periods when only limited assistance can be provided. In some programs, students must file a written program plan. Advisers can help students complete such plans as well as verify that all degree requirements are being met in a timely fashion. Students may locate their advisers by consulting the list of school and departmental advising offices in the Advising Index at the front of this catalog and on the university's website.

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 how well their current curriculum (courses, degree requirements, and other activities offered by the program) provides students

with the tools they need 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 the 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. One semester hour is equivalent to a total of 50 minutes of scheduled instruction each week plus the estimated time required in outside preparation. 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 Petition of Exception. More than 21 credits also must have Registrar approval. College guest students must have the approval of the Registrar.

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 114-115) 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, 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**.
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. Corequisite 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 corequisites 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). Students may take a competency examination to fulfill the general education requirement for foreign language. The languages are Arabic, Chinese, French, German, Hebrew, Italian, Japanese and Spanish. Students who wish to take this exam should consult the Department of Modern Languages and Literatures (418 Wilson Hall (248) 370-2060), for approval of the department chairperson.
4. That they pay the appropriate charges.

Students may apply up to 60 credits based on non-classroom experience (course competency, Advanced Placement 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 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)

If students decide to drop a course, the course may be dropped without academic penalty through the ninth week in 14-week courses and the fifth week in seven-week courses. A "W" grade denoting withdrawal is recorded for courses dropped after the second week in full semesters. Dropped courses for tuition refund must be processed during published refund periods. Failure to drop a course on or before the official withdrawal date will result in the recording of a 0.0 grade on a student's record.

Students previously registered for the term and wishing to add a course should do so as early as possible in the semester or session. Courses may not be added following the 10th class day after the first day of classes (fifth class day in the summer semester and for 2 credit, half-semester courses). Firm deadlines for dropping or adding classes and impact on tuition can be found by selecting important dates 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 in Registrar Services, 101A O'Dowd Hall. 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 no-grade drop/add period has ended for a given semester (two weeks into the term) or session (one week into the term).

4. Students who wish to audit courses must have been admitted to the university by the Office of Admissions and Orientation.
5. Students whose entire registration for a semester or session 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. The limit is three attempts at any individual course, 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 distribution 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 (see Petition of exception, below).

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 distribution 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 go to oakland.edu/registrar/graduation.cfm 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 prior to the first day of classes of the semester or session 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.
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.
- 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 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 Perspective, 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 2011-2012 catalog until the catalog expires (six years).

Transfer students should refer to the course catalog section, *Transfer Student Information*. On page 74, you will find the subheading, *General Education Requirements for Transfer Students.*

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

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
CIT 122	Computer Animation
CIT 130	Introduction to Computer Programming
CSE 120	Introduction to Computing and Programming Using Excel
CSE 130	Introduction to Computer Programming
LIN 180	Linguistic Analysis
LIN 183	Formal Rules of Sound Structure
LIN 184	Formal Rules of Phrase Structure

MTH 118	Mathematical Sciences in the Modern World
MTH 121	Linear Programming, Elementary Functions
MTH 122	Calculus for the Social Sciences
MTH 154	Calculus I
PHL 102	Introduction to Logic
PHL 107	Introduction to Symbolic Logic
STA 225	Introduction to Statistical Concepts and Reasoning
STA 226	Applied Probability and Statistics

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	Introduction to Western Art I
AH 101	Introduction to Western Art II
AH 104	Introduction to Arts of Asia and the Islamic World
CIN 150	Introduction to Film (Also meets U.S. Diversity)
DAN 173	Dance History and Appreciation
DAN 175	Dance in American Culture (Also meets U.S. Diversity)
MUS 100	An Introduction to Music
MUS 131	History and Literature of Western Tonal Music
MUS 200	Cultural Foundations and Historical Development of Rock Music (Also meets U.S. Diversity)
MUS 205	Music, Technology and Transformation
MUS 225	Song and Songwriting
MUS 236	Music in African Culture (Also meets Global Perspective)
MUS 334	History of Film Music
MUS 336	Music of the Americas: African Origin (Also meets U.S. Diversity)
MUS 338	Jazz and Blues: American Music (Also meets U.S. Diversity)
SA 100	Foundations of Visual Literacy
THA 100	Introduction to Theatre
THA 301	Theatre History I (Also meets Writing Intensive in Gen Ed)
THA 302	Theatre History II (Also meets Writing Intensive in Gen Ed)

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
ARB 114	Introduction to Arabic and Arabic Culture
CHE 114	Introduction to Chinese and Chinese Culture

FRH 114	Introduction to French and French Culture
FRH 119	Accelerated Review of Elementary French and French Culture
GRM 114	Introduction to German and German Culture
HBR 114	Introduction to Hebrew Language and Culture
IT 114	Introduction to Italian and Italian Culture
JPN 114	Introduction to Japanese and Japanese Culture
LIN 181	Introduction to the Development of the English Language
LTN 114	Introduction to Latin Language and Roman Culture
ML 191	Tutorial in Foreign Language
SPN 114	Introduction to Spanish and Hispanic Cultures

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 (Also meets Social Science)
AN 200	Global Human Systems
ENG 260	Masterpieces of World Cinema
GEO 200	Global Human Systems
IS 200	Global Human Systems
IS 210	Introduction to China
IS 220	Introduction to Japan
IS 230	Introduction to Africa
IS 240	Introduction to India
IS 250	Introduction to Latin America
IS 260	Introduction to Russia and Eastern Europe
IS 270	Introduction to the Middle East
MGT 110	Contemporary World Business (Also meets Writing Intensive in Gen Ed)
MUS 236	Music in African Culture (Also meets Arts)
PS 114	Issues in World Politics (Also meets Social Science)
PS 131	Comparative Politics (Also meets Social Science and Writing Intensive in Gen Ed)
REL 101	Introduction to Islam
REL 102	Introduction to Judaism
REL 150	World Religious Traditions
WRT 360	Global Rhetorics (Also meets Writing Intensive in Gen Ed)

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
ENG 105	Introduction to Shakespeare
ENG 111	Modern Literature
ENG 112	Literature of Ethnic America (Also meets U.S. Diversity)
ENG 224	American Literature
ENG 241	British Literature
ENG 250	Film and Formal Analysis

ENG 303	Fiction
ENG 305	The Bible as Literature
ENG 306	Drama
ENG 312	Classical Mythology
LIT 100	Introduction to Asian Literature
LIT 181	European Literature I
LIT 182	European Literature II
REL 311	The Bible as Literature

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
BIO 110	Life on Earth
BIO 111	Biology
BIO 113	Biology
BIO 300	Biology and Society (Also meets Writing Intensive in Gen Ed)
CHM 104	Introduction to Chemical Principles
CHM 157	General Chemistry I
CHM 167	Honors General Chemistry I
CHM 300	Chemistry and Society (Also meets Writing Intensive in Gen Ed)
ENV 308	Introduction to Environmental Studies
GEO 106	Earth Science/Physical Geography
HS 201	Health in Personal and Occupational Environments
LIN 182	Language and the Brain
PHY 101	General Physics I
PHY 104	Astronomy: The Solar System
PHY 105	Astronomy: Stars and Galaxies
PHY 106	Earth Science/Physical Geography
PHY 115	Energy
PHY 120	The Physics of Everyday Life
PHY 151	Introductory Physics I
SCI 100	Physical Sciences in Life, the World and Beyond

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
AN 102	Culture and Human Nature (Also meets Global Perspective)
AN 300	Culture, Society and Technology (Also meets Western Civilization)
COM 287	Media and Social Identity
ECN 150	Economics in Today's World
ECN 200	Principles of Macroeconomics
ECN 210	Principles of Economics
HS 302	Community and Public Health (Also meets U.S. Diversity)
PS 100	Introduction to American Politics (Also meets U.S. Diversity)
PS 114	Issues in World Politics (Also meets Global Perspective)
PS 131	Comparative Politics (Also meets Global Perspective and Writing Intensive in Gen Ed)

PS 312	The Politics of Race and Ethnicity (Also meets U.S. Diversity and Writ. Int. in Gen Ed)
PSY 100	Foundations of Contemporary Psychology
PSY 130	Positive Psychology
SOC 100	Introduction to Sociology (Also meets U.S. Diversity)
SOC 206	Self and Society
WGS 200	Introduction to Women and Gender Studies (Also meets U.S. Diversity)

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 (Also meets Social Science)
COM 375	Rise of Electronic Media
HST 101	Introduction to European History before 1715
HST 102	Introduction to European History since 1715
HST 114	Introduction to American History before 1877 (Also meets U.S. Diversity)
HST 115	Introduction to American History since 1877 (Also meets U.S. Diversity)
HST 292	History of the African-American People (Also meets U.S. Diversity)
MGT 235	Commerce in Western Civilization
PHL 101	Introduction to Philosophy
PHL 103	Introduction to Ethics
PS 377	Communism (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 310	Art of the Ancient Near East (Arts)
AH 312	Greek Art (Arts)
AH 314	Roman Art (Arts)
AH 387	Seminar in Critical Theory (Also meets Writing Intensive in General Education)(Arts)
AMS 300	Topics in American Culture (Western Civilization) (Also meets U.S. Diversity)
AN 331	Racial and Ethnic Relations (Social Science) (Also meets U.S. Diversity)
AN 385	Historical Archaeology (Social Science) (Also meets U.S. Diversity)
APM 163	Mathematics for Information Technology (Formal Reasoning or Natural Science and Technology)
CIT 252	Interactive Web Systems (Formal Reasoning)
CSE 252	Interactive Web Systems (Formal Reasoning)
ECN 303	Managerial Economics (Formal Reasoning and Social Science)
ENG 309	Adaptation: Fiction, Drama, Film (Literature)
ENG 310	Biography (Western Civilization)
ENG 342	African-American Literature (Literature) (Also meets U.S. Diversity)
ENV 354	Global Environmental Governance (Social Science) (Also meets Writing Intensive in Gen Ed)
FRH 214	Second Year French (Foreign Language and Culture)

FRH 215	Second Year French (Foreign Language and Culture)
GRM 214	Second Year German (Foreign Language and Culture)
GRM 215	Second Year German (Foreign Language and Culture)
HRD 304	Lean Principles and Practices in Organizations (Writing Intensive in General Education or Social Science)
HRD 307	Presentation and Facilitation (Writing Intensive in General Education or Social Science)
HRD 323	Negotiation for Personal Success (Social Science)
HRD 351	Fundamentals of Human Interaction (Writing Intensive in General Education or Social Science)
ISE 150	How Things Work (Writing Foundations)
ISE 310	Engineering a Great Life (Formal Reasoning, Social Science and Natural Science)
JPN 214	Second Year Japanese (Foreign Language and Culture)
JPN 215	Second Year Japanese (Foreign Language and Culture)
MTH 155	Calculus II (Formal Reasoning)
MUS 220	Computer-based Music Composition (Arts)
MUS 339	What's On Your Playlist? Aesthetic Experiences in Music (Arts)
NRS 304	Human Sexuality (Natural Science and Technology or Social Science) (Also meets U.S. Diversity)
PHL 204	Ancient Greek Philosophy (Western Civilization) (Also meets Writing Intensive in Gen Ed)
PHL 205	Medieval Philosophy (Western Civilization) (Also meets Writing Intensive in Gen Ed)
PHL 206	Early Modern Philosophy (Western Civilization) (Also meets Writing Intensive in Gen Ed)
PHY 102	General Physics II (Natural Science and Technology)
PHY 152	Introductory Physics II (Formal Reasoning or Natural Science and Technology)
PS 354	Global Environmental Governance (Social Science) (Also meets Writing Intensive in Gen Ed)
PSY 225	Introduction to Life-Span Developmental Psychology (Social Science)
QMM 240	Statistical Methods for Business I (Formal Reasoning)
QMM 241	Statistical Methods for Business II (Formal Reasoning)
QMM 250	Statistical Methods for Business (Formal Reasoning)
REL 301	Religion in the Modern World (Social Science or Global Perspective)
SA 105	Drawing for Non-Majors (Arts)
SA 160	Photography for Non-Majors (Arts)
SOC 331	Racial and Ethnic Relations (Social Science) (Also meets U.S. Diversity)
SPN 214	Second Year Spanish (Foreign Language and Culture)
SPN 215	Second Year Spanish (Foreign Language and Culture)
WGS 300	Women in Transition (Social Science) (Also meets U.S. Diversity)
WGS 385	Historical Archeology (Social Science) (Also meets U.S. Diversity)
WHP 310	Injury Prevention, Control, and Safety Promotion (Natural Science and Technology or Social Science) (Also meets Writing Intensive in Gen Ed)
WHP 315	Laughter as Therapeutic Modality (Natural Science and Technology or Social Science) (Also meets Writing Intensive in Gen Ed)
WRT 320	Peer Tutoring in Composition (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 335	Writing for Human Resource Development Professionals (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 342	History of Rhetorical Studies (Writing Foundations) (Also meets Writing Intensive in Gen Ed)

WRT 364	Writing about Culture: Ethnography (Writing Foundations) (Also meets Writing Intensive in Gen Ed and U.S. Diversity)
WRT 380	Persuasive Writing (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 382	Business Writing (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 386	Workshop in Creative Non-Fiction (Also meets Writing Intensive in Gen Ed)
WRT 460	Writing Across the University: Language and Disciplinary Culture (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 490	Independent Study (Writing Foundations) (Also meets Writing Intensive in Gen Ed)
WRT 491	Internship (Writing Foundations) (Also meets Writing Intensive in Gen Ed)

CAPSTONE

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, an approved course outside of the major, or second approved knowledge applications course.)

Courses approved to meet this requirement will be announced. Please check with your adviser.

AH 495	Senior Thesis in Art History I
AH 496	Senior Thesis in Art History II
AHS 450	Law, Values and Health Care
AN 470	Anthropological Theory
BCM 457	Biochemistry Laboratory
BIO 495	Scientific Inquiry and Communication
CHM 457	Biochemistry Laboratory
CHM 491	Independent Research
CIN 450	Advanced Topics in Film
CIT 480	Senior Capstone Project
COM 399	Community Field Experience
CSE 480	Senior Capstone Project
DAN 370	Choreography III
DAN 470	Senior Recital
ECE 491	Senior Design
ECN 409	Urban and Regional Economics
ECN 418	Seminar in Economics Policy
ECN 421	Monetary Economics
ECN 456	Public Finance
EED 455	Internship in Elementary Education
ENG 400	Advanced Topics in Literature and Language
ENG 401	Studies in Literary Kinds
ENG 420	Trans-Atlantic Traditions
ENG 451	Major American Writers
ENG 452	Major British Writers
ENG 453	Studies in Major Authors
ENG 465	Shakespeare Seminar
ENG 490	Studies in Literary Theory and Research

ENV 470	Environmental Science Internship
EXS 350	Human Motion Analysis
EXS 401	Practicum in Exercise Science
FRH 416	French Literature - from the Middle Ages Through the Sixteenth Century
FRH 417	French Literature - Seventeenth and Eighteenth Centuries
FRH 419	French Literature - Nineteenth Century
FRH 420	French Literature - Twentieth Century
GRM 413	German Literature from the Middle Ages through the Seventeenth Century
GRM 418	German Literature – Eighteenth Century
GRM 419	German Literature – Nineteenth Century
GRM 420	German Literature – Twentieth Century
GRM 480	Undergraduate Seminar
HRD 499	Internship in HRD
HS 402	Field Experience in Integrative Studies
HS 450	Law, Values and Health Care
HST 494	Capstone Seminar in Cross-Cultural History
HST 495	Capstone Seminar in European History
HST 496	Capstone Seminar in World Civilization
HST 497	Capstone Seminar in American History
ISE 310	Engineering a Great Life
ISE 491	Senior Design
JPN 420	Japanese Literature – Nineteenth and Twentieth Centuries
JRN 404	Journalism Internship
LIN 470	The History of Linguistics
ME 492	Senior Mechanical Engineering Design Project
MGT 435	Management Strategies and Policies
MLS 450	Law, Values and Health Care
MUA 499	Senior Recital
MUS 420	The Nineteenth-Century Symphony: History, Performance and Analysis
MUS 430	Seminar in Opera and Drama
MUS 431	Historical and Philosophical Foundations of Music Education
NRS 473	Nursing Synthesis Clinical
NRS 475	Nursing Synthesis Clinical
NRS 485	Nursing Synthesis Clinical
OSH 499	Occupational Safety and Health Internship
PHL 465	Seminar on a Philosophical Topic
PHY 400	Undergraduate Seminar
PHY 490	Independent Research
PS 458	Public Administration Internship
PS 459	Political Science/International Relations Internship
PS 470	Seminar in American Politics
PS 472	Seminar in International Relations
PS 476	Seminar in the Comparative Study of Political Systems
PSY 399	Field Experience in Psychology
PSY 415	Seminar in Basic Psychological Processes
PSY 425	Seminar in Developmental Psychology
PSY 435	Seminar in Social Psychology
PSY 445	Seminar in Individual Differences and Personality Psychology
PSY 450	Advanced Experimental Psychology: Basic Psychological Processes
PSY 452	Advanced Experimental Psychology: Developmental
PSY 453	Advanced Experimental Psychology: Social
PSY 454	Advanced Experimental Psychology: Individual Differences and Personality
PSY 483	Readings and Research Projects
PSY 484	Readings and Research Projects

PSY 485	Readings and Research Projects
PSY 494	Honors Independent Studies
SA 491	Senior Thesis in Studio Art
SED 455	Internship in Secondary Education
SOC 400	Sociological Theory
SPN 416	Spanish Literature, Fifteenth and Sixteenth Centuries
SPN 417	Spanish Literature, Seventeenth Century
SPN 418	Cervantes
SPN 420	Spanish Literature – Twentieth Century
SPN 488	Spanish-American Literature before 1888
SPN 489	Spanish-American Literature after 1888
SW 433	Social Work Seminar II
THA 407	Advanced Directing Project
THA 420	Advanced Performance Projects
THA 425	Advanced Design and Technology Projects
THA 482	Classical Theatre Study in Greece
THA 491	Internship
THA 495	Company Class
WGS 405	Women and Gender Studies Capstone Course
WHP 401	Internship in Wellness, Health Promotion and Injury Prevention
WHP 402	Senior Culminating Experience

WRITING INTENSIVE

WI.1. General Education Writing Intensive

(Note: Requirement cannot be met with WRT 150 or 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
AH 387	Seminar in Critical Theory
AH 495	Senior Thesis in Art History I
AH 496	Senior Thesis in Art History II
BIO 300	Biology and Society
CHM 300	Chemistry and Society
COM 330	Digital Culture: Identity and Community
COM 385	Multicultural Communication
EED 420	Managing the Classroom Community for U.S. Diverse Learners
ENG 380	Advanced Critical Writing
ENV 354	Global Environmental Governance
EXS 350	Human Motion Analysis
JRN 200	Newswriting
LIN 470	The History of Linguistics
MGT 110	Contemporary World Business
MGT 435	Management Strategies and Policies
PHL 204	Ancient Greek Philosophy
PHL 205	Medieval Philosophy
PHL 206	Early Modern Philosophy
PS 131	Comparative Politics
PS 312	The Politics of Race and Ethnicity
PS 354	Global Environmental Governance
PS 377	Communism

PSY 316	Cognitive Psychology
PSY 318	Physiological Psychology
PSY 319	Animal Behavior
PSY 321	Child Development
PSY 322	Adolescence and Youth
PSY 323	Adulthood and Aging
PSY 327	Socialization in the Family
PSY 330	Social Cognition
PSY 333	Motivation
PSY 338	Health Psychology
PSY 339	Emotion
PSY 342	Coping Strategies in the Normal Personality
PSY 343	Psychopathology of Childhood
PSY 344	Behavior Analysis
PSY 358	History and Systems of Psychology
PSY 381	Tests and Measurement
REL 300	Special Topics in Religious Studies
THA 301	Theatre History I
THA 302	Theatre History II
WGS 382	Sexual Orientation, Gender Identity and Education
WHP 310	Injury Prevention, Control and Safety Promotion
WHP 315	Laughter as Therapeutic Modality
WRT 320	Peer Tutoring in Composition
WRT 330	Digital Culture: Identity and Community
WRT 335	Writing for Human Resource Development Professionals
WRT 342	History of Rhetorical Studies
WRT 360	Global Rhetorics
WRT 364	Writing about Culture: Ethnography
WRT 380	Persuasive Writing
WRT 382	Business Writing
WRT 386	Workshop in Creative Non-Fiction
WRT 460	Writing Across the University: Language and Disciplinary Culture
WRT 490	Independent Study
WRT 491	Internship

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
AH 291	Concepts of Modern and Postmodern Art
AH 387	Seminar in Critical Theory
AH 495	Senior Thesis in Art History I
AH 496	Senior Thesis in Art History II
AHS 450	Law, Values and Health Care
ALS 335	Psycholinguistics
AN 470	Anthropological Theory
BCM 457	Biochemistry Laboratory
BIO 300	Biology and Society
BIO 405	Directed Readings in Biology
BIO 495	Scientific Inquiry and Communication

CHM 300	Chemistry and Society
CHM 348	Physical Chemistry Laboratory
CHM 457	Biochemistry Laboratory
CIN 252	Methods of Cinema Studies
CIN 450	Advanced Topics in Film
CIT 480	Senior Capstone Project
COM 330	Digital Culture: Identity and Community
COM 385	Multicultural Communication
COM 399	Community Field Experience
COM 411	Rhetorical Criticism in Communication
CSE 480	Senior Capstone Project
DAN 380	Contemporary Dance History: Revolution and Revisionism
ECE 491	Senior Design
ECN 409	Urban and Regional Economics
ECN 418	Seminar in Economic Policy
ECN 421	Monetary Economics
ECN 456	Public Finance
EED 310	Public Education for the Future
EED 311	Public Education for Prospective K-8 Teachers
EED 420	Managing the Classroom Community for U.S. Diverse Learners
ENG 400	Advanced Topics in Literature and Language
ENG 401	Studies in Literary Kinds
ENG 420	Trans-Atlantic Traditions
ENG 451	Major American Writers
ENG 452	Major British Writers
ENG 453	Studies in Major Authors
ENG 465	Shakespeare Seminar
ENG 490	Studies in Literary Theory and Research
ENV 354	Global Environmental Governance
ENV 446	Industrial and Environmental Toxicology
ENV 470	Environmental Science Internship
EXS 350	Human Motion Analysis
FRH 318	French Composition
GRM 318	German Composition
HRD 499	Internship in HRD
HS 402	Field Experience Integrative Studies
HS 450	Law, Values and Health Care
HST 300	Seminar in Historical Research
ISE 491	Senior Design
JPN 318	Japanese Composition
JPN 420	Japanese Literature – Nineteenth and Twentieth Centuries
JRN 200	Newswriting
JRN 404	Journalism Internship
LIN 470	The History of Linguistics
ME 492	Senior Mechanical Engineering Design Project
MGT 435	Management Strategies and Policies
MLS 450	Law, Values and Health Care
MTH 414	History of Mathematics
MUS 331	History and Literature of Medieval and Renaissance Music
MUS 332	History and Literature of Western Music ca. 1850 to the Present
MUS 420	The Nineteenth-Century Symphony: History, Performance and Analysis
MUS 430	Seminar in Opera and Drama
MUS 431	Historical and Philosophical Foundations of Music Education
NRS 280	Introduction to Professional Nursing Practice

NRS 452	Research Basis of Nursing Practice
OSH 446	Industrial and Environmental Toxicology
PHL 204	Ancient Greek Philosophy
PHL 205	Medieval Philosophy
PHL 206	Early Modern Philosophy
PHY 400	Undergraduate Seminar
PHY 490	Independent Research
PS 312	The Politics of Race and Ethnicity
PS 337	The Russian Political System
PS 350	Public Administration
PS 354	Global Environmental Governance
PS 371	American Political Thought
PS 372	Western Political Thought I
PS 373	Western Political Thought II
PS 374	Politics Through Literature
PS 377	Communism
PSY 316	Cognitive Psychology
PSY 318	Physiological Psychology
PSY 319	Animal Behavior
PSY 321	Child Development
PSY 322	Adolescence and Youth
PSY 323	Adulthood and Aging
PSY 327	Socialization in the Family
PSY 330	Social Cognition
PSY 333	Motivation
PSY 338	Health Psychology
PSY 339	Emotion
PSY 342	Coping Strategies in the Normal Personality
PSY 343	Psychopathology of Childhood
PSY 344	Behavior Analysis
PSY 358	History and Systems of Psychology
PSY 362	Statistical Analysis on Computers
PSY 370	Psycholinguistics
PSY 381	Tests and Measurement
SA 200	Critical Theory and Practice in Art
SED 300	Introduction to Secondary Education
SED 301	Public Education for Prospective K-12 Teachers
SOC 315	Social Welfare Policies
SOC 400	Sociological Theory
SPN 408	Advanced Spanish Conversation and Composition
SPN 416	Spanish-Literature, Fifteenth and Sixteenth Centuries
SPN 417	Spanish-Literature, Seventeenth Century
SPN 418	Cervantes
SPN 488	Spanish-American Literature before 1888
SPN 489	Spanish-American Literature after 1888
SW 315	Social Welfare Policies
SW 433	Social Work Seminar II
THA 301	Theatre History I
THA 302	Theatre History II
WGS 405	Women and Gender Studies Capstone Course
WHP 310	Injury Prevention, Control, and Safety Promotion
WHP 315	Laughter as Therapeutic Modality
WRT 320	Peer Tutoring in Composition
WRT 330	Digital Culture: Identity and Community

WRT 342	History of Rhetorical Studies
WRT 360	Global Rhetorics
WRT 364	Writing about Culture: Ethnography
WRT 380	Persuasive Writing
WRT 386	Workshop in Creative Non-Fiction
WRT 460	Writing Across the University: Language and Disciplinary Culture
WRT 490	Independent Study
WRT 491	Internship

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, ethnicity identify major challenges and issues these raise in society. Approved diversity courses may double count in the major and/or general education.

ALS 374	Cross-Cultural Communication
AMS 300	Topics in American Culture
AN 331	Racial and Ethnic Relations
AN 374	Cross-Cultural Communication
AN 381	Peoples and First Nations of North America
AN 385	Historical Archaeology
CIN 150	Introduction to Film
COM 330	Digital Culture: Identity and Community (Also meets Writing Intensive in Gen Ed)
COM 385	Multicultural Communication (Also meets Writing Intensive in Gen Ed)
DAN 175	Dance in American Culture
ECN 315	Economics of Gender and Ethnicity (Also meets Writing Intensive in Gen Ed)
EED 420	Managing the Classroom Community for U.S. Diverse Learners (Also meets Writing Intensive in Gen Ed)
ENG 112	Literature of Ethnic America
ENG 341	Selected Ethnic Literature
ENG 342	African-American Literature
HRD 367	Cultural Diversity in the Workplace
HS 302	Community and Public Health
HST 114	Introduction to American History before 1877
HST 115	Introduction to American History since 1877
HST 292	History of the African-American People
HST 318	The Civil Rights Movement in America
HST 319	History of the American South
HST 322	Women in Modern America
HST 361	History of American Families
HST 362	History of African-American Women
MUS 200	Cultural Foundations and Historical Development of Rock Music
MUS 336	Music of the Americas: African Origins
MUS 338	Jazz and Blues: American Music
NRS 280	Introduction to Professional Nursing Practice
NRS 302	Health Promotion II
NRS 304	Human Sexuality
NRS 450	Nursing Care of Populations with Health Disparities
PS 100	Introduction to American Politics

PS 312	The Politics of Race and Ethnicity (Also meets Writing Intensive in Gen Ed)
SOC 100	Introduction to Sociology
SOC 331	Racial and Ethnic Relations
WGS 200	Introduction to Women and Gender Studies
WGS 300	Women in Transition
WGS 322	Women in Modern America
WGS 361	History of American Families
WGS 362	History of African-American Women
WGS 382	Sexual Orientation, Gender Identity and Education (Also meets Writing Intensive in Gen Ed)
WGS 385	Historical Archeology
WHP 370	Culture, Ethnicity and Well-being
WRT 330	Digital Culture: Identity and Community (Also meets Writing Intensive in Gen Ed)
WRT 364	Writing about Culture: Ethnography (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):

a. 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.

b. 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 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.

c. 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.

d. 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 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 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 English score, as follows:

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

Additionally, students who submit an AP English Language and Composition examination score of 3 will be exempt from WRT 150; a score 4 or 5 on the AP English Language and Composition examination will be exempt from WRT 150 and 160. No credit is awarded for AP Exams.

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 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 who have not earned a baccalaureate degree 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, except those educated outside the U.S., from regionally accredited institutions are exempt from Oakland University's general education requirements, including the undergraduate requirement for a writing foundations course at the level of WRT 160.

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, permanent residents, and exchange students 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. 24 transferable credits, excluding ESL course work, from a U.S. community college or baccalaureate institution
4. A baccalaureate degree from a regionally accredited U.S. college or university
5. 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

One of the following constitutes proof:

1.	TOEFL	520-549 on paper-based TOEFL
		192-212 on computer-based TOEFL
		69-78 n internet-based TOEFL
2.	MELAB	73-76

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 Institutional TOEFL and other assessment tools. Upon completion of the individualized ESL instruction sequence, students' English Proficiency will be evaluated using the Institutional TOEFL to determine whether additional ESL coursework is necessary to achieve English Proficiency. The individualized ESL instruction sequence designed by the ESL Center is not negotiable.

Satisfactory completion of the individualized 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 Institutional TOEFL and other assessment tools. Upon completion of the individualized ESL instruction sequence, students' English Proficiency will be evaluated using the Institutional TOEFL to determine whether additional ESL coursework is necessary to achieve English Proficiency. The Individualized 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 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. 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 the Office of Undergraduate Admissions.

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 postsecondary 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.

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 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 masters degree or above.

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

Transfer practices for veterans

Undergraduate students 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 Academic Records Office (102 O'Dowd Hall) 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 MACRAO agreement

Oakland University participates in the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) Articulation Agreement. The Agreement allows transfer students to satisfy the university's general education requirements at the 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. MACRAO transfer students must also either transfer in a course that is acceptable for the knowledge application requirement or take the course at OU after transferring. Transfer students are exempt from the writing intensive in general education requirement. Under the MACRAO agreement, transfer students from participating Michigan public community colleges must present for review a transcript bearing the "MACRAO Agreement Satisfied" stamp.

General education requirements for transfer students

All transfer students who enter Oakland University in fall 2008 and after are under the general education program revised in 2005-2006. 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 CLEP credits towards degree work at Oakland University should consult the College-level Examination Program (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 the summer I and II sessions 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.)
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. Work to remove an I grade must be completed during the first eight weeks of the next semester (fall or winter) for which the student registers unless a student-initiated extension is approved by the instructor and the dean of the school or college or other appropriate administrator. Proposed changes should be submitted to Senate this fall. If course requirements are not completed within one year and no semester has been registered for, the I grade shall be changed to a grade of 0.0. 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 2.0-2.9 — C
3.0-3.5 — B 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:

a. These credits may be counted only as elective credits. They may not be used to satisfy general education requirements (including college or school distribution requirements), the student's major or minor course requirements or prerequisites, or any courses designated "No S/U".
b. 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.
c. 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.
d. Neither the S nor the U grade will be included in the student's grade point average.
e. If an academic unit at Oakland University later requires evidence of a numerical grade instead of an S because of a change of program status, the student may file a petition with the Registration Office to release that grade information to the program requiring the evidence.
f. 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 <u>not</u> 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 <u>AND</u> within the time limits specified in the various steps below. These time limits represent the <u>maximum</u> 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:

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

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.

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

Academic records are maintained in the Academic Records Office, 101 O'Dowd Hall, (248) 370-3452. Transcripts of academic records may be obtained by completing a transcript request form at oakland.edu/transcripts, in-person at Registrar Services, online through SAIL, 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 Sex Crimes Prevention Act

Oakland University shall comply with the applicable requirements of the "Campus Sex Crimes Prevention Act," beginning in 2002, which states that every sex offender must register under "Megan's Law" and provide information of his/her enrollment or employment by a college or university. Names of registered sex offenders enrolled or working at Oakland University are provided by the Oakland University Police Department (OUPD) with campus jurisdiction from the state government. To obtain this information, please contact the OUPD, 3 Police & Support Services Building, (248) 370-3331, or the police website: mirage.otus.oakland.edu/oupd/oupd.htm. Questions or further information regarding the Campus Sex Crimes Prevention Act may be obtained by contacting the Vice President for Student Affairs, (248) 370-4200, or the Chief of Police, (248) 370-3000. In accordance with the "Family Educational Rights and Privacy Act," nothing may be construed to prohibit Oakland University from disclosing information provided to the university concerning registered sex offenders. Finally, it is required that the Secretary of Education take appropriate steps to notify Oakland University that disclosure of this information is permitted.

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 101A O'Dowd Hall. Upon receipt of the completed form or a letter, 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) 370-3461.

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

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 for the Protection of Human Subjects (IRB) 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 Research Application Manager 2.0 (see "Online Application for Conducting Research" section).

All students conducting research must have a faculty sponsor. The student and faculty sponsor are jointly responsible for contacting the IRB and for keeping abreast of the approval process as it pertain to their study.

For more information about human subjects review, and to access the Oakland University Guidelines for Research Involving Human Subjects along with training modules, visit Regulatory Compliance at **oakland.edu/research,** contact Dr. Judette Haddad at (248) 370-4898, haddad@oakland.edu or submit general questions to IRB@oakland.edu.

Protection of animal subjects

Research using vertebrate animals must have the approval of the Institutional Animal Care and Use Committee (IACUC) and be conducted according to university guidelines. Approval is obtained through submission of an Animal Care and Use applications. Applications must be submitted online through the Research Application Manager 3.0 (see "Online Application for Conducting Research" section). For

more information visit Regulatory Compliance at oakland.edu/research or contact Janet Schofding at (248) 370-4440 or schofdin@oakland.edu.

Biosafety

All research, teaching and testing at Oakland University involving recombinant DNA, infectious agents and/or cultured cell lines must be approved by the Institutional Biosafety Committee (IBC). Approval is obtained through submission of biosafety research applications.

Applications must be submitted online through the Research Application Manager 3.0 (see "Online Application for Conducting Research" section). For more information visit Regulatory Compliance at **oakland.edu/research** or contact Dr. Judette Haddad at (248) 370-4898 or haddad@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. To access the Radiation Safety Tutorial, visit Regulatory Compliance at oakland.edu/research. For more information, visit oakland.edu/labsafety or contact Dominic 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 **oakland.edu/research.** Research Application Manager (RAM) 2.0 (IRB Application) is accessed at **oakland.edu/research.** Researchers who are accessing the site for the first time, should access the Step-by-Step Instructions at **oakland.edu/research/appmanager/stepbystep.cfm** to create an account. Depending on the elements involved and the scope of the project, students will gain access to the relevant applications required to conduct the study. RAM 3.0 (IACUC and IBC Applications) is accessed at oakland.edu/research/gcsram/login.cfm

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. Notices of commendation will be sent to undergraduates with GPAs of 3.00 to 3.59. Notices of academic honors will be sent to undergraduates with GPAs of 3.60 to 4.00. 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 and honesty. Academic integrity means representing oneself and one's work honestly. Misrepresentation is cheating since it means students are claiming credit for ideas or work not actually theirs and are thereby seeking a grade that is not actually earned. Following are some examples of academic dishonesty:

1. Cheating on examinations. This includes using materials such as books and/or notes when not authorized by the instructor, copying from someone else's paper, helping someone else copy work, substituting another's work as one's own, theft of exam copies, or other forms of misconduct on exams.
2. Plagiarizing the work of others. Plagiarism is using someone else's work or ideas without giving that person credit; by doing this students are, in effect, claiming credit for someone else's thinking. Whether students have read or heard the information used, they 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 students rephrase, condense or select 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 World Wide Web or 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 computer assignments and unauthorized access to and use of computer programs, including modifying computer files created by others and representing that work as one's own.

Unless they specifically indicate otherwise, instructors expect individual, unaided work on homework assignments, exams, lab reports and computer exercises, and documentation of sources when used. If instructors assign a special project other than or in addition to exams, such as a research paper, or original essay or a book review, they intend that work to be completed for that course only. Students must not submit work completed for a course taken in the past or for a concurrent course unless they have explicit permission to do so from both faculty members.

Instructors 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 Assistant 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 conduct before the Academic Conduct Committee.

Students are expected to maintain 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 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. To avoid the appearance of cheating.

If students believe that practices by the instructor are conducive to cheating, they may convey this message to the instructor, to the chairperson of the department, or to any member of the student/faculty Academic Conduct Committee (either directly or through the Office of the Dean of Students).

If academic misconduct is determined by the Academic Conduct Committee, the committee assesses penalties ranging from disciplinary reprimand, to probation, to suspension or expulsion (dismissal) from the university. Additionally, withdraw grades may be changed to the appropriate numerical grade. All confidential conduct records are maintained in the Office of the Dean of the Students.

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 Academic Skills Center, 103 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 on Oakland University's probation and dismissal policies should be directed to the Academic Skills Center, 103 North Foundation Hall, (248) 370-4215.

Principles and practices

The Academic Probation and Dismissal Policy is administered by the director of the Academic Skills

Center for the University Senate's Academic Standing and Honors Committee. 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 10-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 in the Academic Skills Center.
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 apply 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 attempted fewer than 24 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 attempted 24 or more credits, 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 7 calendar days of the issuance of the dismissal notice. The forms are sent with the dismissal notice, however they may also be obtained by request from the Academic Skills Center, 103 North Foundation Hall, (248) 370-4215. 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 Academic Skills Center, 103 North Foundation Hall, (248) 370-4215.

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 Academic Skills Center, 103 North Foundation Hall.

Readmission

Readmission is required for all students in the following categories:

1. Any student whose attendance has been interrupted for a period of six or more years and/or;
2. 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, or **a minimum of 45 days prior** to the first day of classes of the term in which the student expects to enroll.

Applications can be accessed from the Academic Skills Center website (oakland.edu/asc) and must be sent to: Oakland University, Academic Skills Center, 103 North Foundation Hall, Rochester, MI 48309-4401.

All other undergraduates may return and register for classes without seeking formal readmission. Particular programs, however, may have more stringent requirements, and students whose progress in a major has been interrupted should consult an adviser. Students applying for readmission must submit an application to the Academic Skills Center, 103 North Foundation Hall, (248) 370-4215 at least 45 days prior to the start of the term in which the student expects to enroll.

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 the Academic Skills Center. 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 within the 45-day time frame. 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.

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, 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.

UNIVERSITY LIBRARY

"A teaching library with a student-centered information literacy program."

Dean: *Julie Voelck*

Associate Dean: *Frank Lepkowski*

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

Professor Emeriti: *Indra M. David, Suzanne O. Frankie, George L. Gardiner, Robert G. Gaylor, Janet A.Krompart, Richard L. Pettengill*

Associate professors: *Kristine S. Condic, Elizabeth Kraemer, Shawn Lombardo, Mildred H. Merz*

Assistant professors: *William Cramer, Dominique Daniel, Mariela Gunn, Linda L. Hildebrand, Ann M. Pogany, Daniel F. Ring, Julia Rodriguez, Anne Switzer*

Managers: *Eric Condic, Library Systems; Louann Stewart, Access Services; Patricia Clark, InterlibraryLoans*

Library Facilities

Located in the center of campus, the Kresge Library houses the main library and the OUWB School of Medicine Library. Collections include books, journals, reference works, government documents, musical scores and recordings, as well as a wireless network and computer workstations to access an array of digital resources. The Library recently opened a new Information Commons, featuring PCs, Macs, wireless laptops (available for checkout) and multimedia large-screen mobile PCs, breakout rooms for group study, comfortable soft seating and flexible spaces to accommodate both group work and individual study in a technology-rich environment. Throughout the library there is open seating for individual study, rooms for group work, meeting rooms, audiovisual rooms, rooms with adaptive equipment for students with disabilities, and a student lounge. There are two networked instruction rooms with 25 workstations in each. In addition to its own operations and resources, the Library hosts the Writing Center, the University Technology Services Help Desk, and e-Learning and Instructional Support.

Library Collections

The Kresge Library's collections include more than 747,000 books, electronic and print journals totaling over 40,000 titles, more than 240,000 federal and state documents, and more than 1.1 million microforms.

The Library's Homepage and online catalog serve as gateways to over a hundred specialized and general research databases, and tens of thousands of full-text electronic journals and e-books, covering a wide range of disciplines and research areas.

In addition to electronic reference resources, the *Matilda R. Wilson Reference Collection* includes atlases, bibliographies, dictionaries, encyclopedias, indexes, yearbooks, and other print reference materials.

Special collections include the *Hicks Collection of Early Books By and About Women*, the *Springer Collection of Lincolniana*, the *Gaylor Collection of GLBT Literature*, the *James Collection of Books on Folklore and Witchcraft*, the *China Gift Collection*, and the *Bingham Collection of Historical Children's Literature*.

The University Archives is a repository of materials relating to the history of Oakland University, and includes copies of all dissertations written at OU, as well as a substantial number of faculty authored monographs.

Library Services

Web site: **library.oakland.edu**
Phone: **(248) 370-4426**
Send an e-mail message to a librarian: **ref@oakland.edu**

Reference assistance and research consultations

Librarians provide reference and research assistance in-person at the Reference 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 the resources, print or digital, most pertinent to their research topics.

Library instruction

As information literacy specialists, librarians provide extensive instruction for students on using the full range of relevant information resources, 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 available in electronic format on the Web.

Interlibrary loan service

Students may request books and articles not owned by the Kresge Library through the Library's interlibrary loan service. Requests are made via the interlibrary loan services web page.

OTHER PROGRAMS

Students may earn an undergraduate or graduate degree, concentrations or minors from a variety of different program areas. Some areas include education, business, human resource development, communication, occupational health and safety and nursing. Day and evening classes are available at the Macomb University Center location. Students who are interested in seeking more information should contact the OU Macomb office. Academic advising is available on an appointment basis only; students should contact the OU Macomb office for further information.

Oakland University Macomb

Oakland University, through a unique partnership with Macomb Community College and the Macomb Intermediate School District, offers the following programs in Macomb County:

MACOMB UNIVERSITY CENTER

Bachelor of Arts in Communication (BA)
Bachelor of Arts in Journalism (BA)
Bachelor of Integrative Studies (BIS)*
Bachelor of Science in Computer Science (BS)
Bachelor of Science in Computer, Electrical, or Mechanical Engineering (BSE)
Bachelor of Science in Elementary Education (BS)
Bachelor of Science in General Management (BS)
Bachelor of Science in Human Resource Development (BS)
Master of Arts in Teaching Reading and Language Arts (MAT)
Master of Arts in Counseling-two track options: community/agency or school

*Less than 50% of the program at the Macomb site

MACOMB INTERMEDIATE SCHOOL DISTRICT

Doctorate of Philosophy in Education with a major in Educational Leadership (PhD)
Education Specialist in Educational Leadership (EDS)
Master of Business Administration (MBA)
Master of Education in Early Childhood Education with ZA Endorsement (MEd)
Master of Education in Teacher Leadership (MEd)
Master of Education in Special Education with Autism Spectrum Disorder Endorsement (MEd)
Master of Arts in Teaching with initial Elementary Certification (MAT)
Master of Arts in Teaching with initial Secondary Certification (MAT)

In fall 2011, Oakland University will begin offering programs at a third site in Macomb County, the Oakland University Anton/Frankel Center in Mt. Clemens.

For an explanation of general admission requirement to Oakland University and an overview of the programs offered, please consult Oakland University's undergraduate and graduate catalog. For additional information about programs or services available at the Macomb sites, please call Macomb's University Center office, (586) 263-6242, and Oakland University's Macomb Intermediate School District office, (586) 226-8462 or visit oakland.edu/macomb.

Anton/Frankel Center, Mt. Clemens

Oakland University will begin offering programs in fall 2011. Conveniently located in downtown Mt. Clemens, students will have access to art and culture as well as a variety of restaurants and shops all within walking distance. For updated information, please visit oakland.edu/macomb.

Community College Partnerships

Oakland University has partnered with area community colleges including Macomb Community College, St. Clair County Community College, Oakland Community College (and beginning Fall 2011 Mott Community College) to create unique joint admission programs — cross-institutional courses of study that offer students maximum flexibility on the path to an OU bachelor's degree. These community college partnerships are among the first in the state of Michigan.

With a single admissions application, students can take advantage of the resources and course selection at Oakland University in Rochester and a partner community college location. Cost savings and convenience top the list of benefits for concurrently enrolled students.

Program benefits

- Admission to Oakland University and the partner community college through a free online application
- Concurrent enrollment at both institutions, offering the flexibility to take courses at one or both institutions at the same time
- Coordinated financial aid that combines credit from both institutions
- Expanded course selection
- Coordinated advising and course planning
- Timely completion of associate's and bachelor's degrees
- Access to on-campus resources at both institutions, including OU housing

Our community college partners include

- **M2O** — Macomb Community College (Macomb) partnership -- students are able to enroll in courses at Macomb's South Campus, Center and East Campus locations, any Oakland University or Oakland University-Macomb location, online courses at both institutions or any combination thereof.
- **O2O** — Oakland Community College (OCC) partnership -- students in the O2O program take advantage of the resources and course selection at Oakland Community College's five locations throughout Oakland County: Auburn Hills, Highland Lakes, Orchard Ridge, Royal Oak and Southfield, any Oakland University or Oakland University-Macomb location, online courses at both institutions or any combination thereof.
- **SC2O** — St. Clair County Community College (SC4) partnership -- offers students the option of enrolling in coursework at SC4's main campus location in Port Huron and/or its five extended learning centers, any Oakland University or Oakland University-Macomb location, online courses at both institutions, or any combination thereof.
- **Mott2O** — Mott Community College partnership is scheduled to launch in fall 2011.

Freshman Admissions Criteria

Applicants must submit high school transcripts and ACT scores along with a completed application for undergraduate admission. Admission to any of the community college partnership programs is based on a combination of criteria including cumulative GPAs in academic subjects of 3.20 or above, (applicants with cumulative GPAs below 3.20 but above 2.50 may be admitted after the consideration of the quality of academic preparation), ACT scores, and the number and types of college preparatory courses. For more information, visit OU's website oakland.edu/cc2o.

Transfer Student Admissions Criteria

Transfer students with a maximum of 32 college credits at the time of application and a minimum 2.50 GPA will be considered for admission to Oakland University. Oakland also will consider positive trends of most recent grades.

Transfer students with fewer than 24 college credits at the time of application also must submit a high school transcript. Admission will be based on both college and high school records. Transfer students will receive a preliminary evaluation of coursework completed at other institutions at their transfer orientation session. Find out what credits will transfer to Oakland University from the transfer equivalency guide located online (oakland.edu/registrar/transfer_main.cfm).

Official transcripts from each college or university a student attended should be sent to Oakland University, Office of Admissions and Orientation, 101 North Foundation Hall, Rochester, MI 48309-4401.

Financial Aid

Students can enroll at one of the community college partners or Oakland University or both schools during any semester. Transferable credits at both institutions are added together to determine full-time or part-time status. The eligible amount of federal and state aid is based on the cumulative credit hours taken at both institutions. Federal aid and some state aid is processed through Oakland. For financial aid questions, contact the Office of Student Financial Services at (248) 370-2550.

Although most community colleges are open admission institutions, specific programs at the community college may require selective admission. Specific academic programs at OU may also impose special requirements for admission. Please see the respective college catalogs for more information.

For more information about the community college partnership programs, contact Cheryl Rhodey at (586) 263-6242 or the Office of Admissions and Orientation at (800) OAK-UNIV.

Oakland University at Seaholm High School

Oakland University offers the following programs and course work at Seaholm High School in Birmingham, Michigan:

Master of Business Administration (MBA)
Master of Arts in Training and Development (MTD)

For additional information about the above programs, please consult the Oakland University graduate catalog or contact the Office of Graduate Admissions, (248) 370-3167. Oakland University also offers evening undergraduate and graduate courses at various other sites throughout southeastern Michigan.

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.

Continuing education

Continuing education at Oakland University is delivered through the various schools and the college. These programs address the needs of professionals and nontraditional students as well as those preparing to enter degree programs. Information on the programs offered can be obtained by going to the Oakland University website: at oakland.edu by clicking on future students and then continuing education or visiting the relevant school or college homepage.

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 relicensure 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 (AS) courses offered at the University of Michigan may be used to fulfill other requirements. For the 2009-2010 academic year, AS 300, Leadership Management and Ethics, will be accepted as a 300-level management elective for a business major in general management. For possible use of AS courses as electives, please contact 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.

Aerospace science course listing

Required of OU students participating in the cross-town AFROTC program at the University of Michigan.

AERO 101 Air Force Today I
Examines the growth and development of the United States Air Force; covers Presidential, Secretary of Defense and JCS roles in the defense posture, and the national and U.S. military strategic concepts; studies the Air Force contribution to strategic offensive and defensive and General Purpose Forces and Air Force supporting forces. Provides a comparison of the dynamics and interaction of all U.S. military forces in the General Purpose role and their cooperative efforts in the national security posture.

AERO 102 Air Force Today II
This course is a continuation of the study of the growth and development of the United States Air Force begun in AERO 101. The course relates the mission and responsibilities of the various Air Force major commands to the U.S. defense posture and the U.S. military strategy. Emphasis is placed on the Air Force contribution to General Purpose forces and the dynamics, interactions, and cooperative efforts of all the Services in the General Purpose role for the national security posture.

AERO 201 U.S. Aviation History and Its Development into Air Power
This course traces the development of aviation from the 18th century — a time of balloons and dirigibles — to the present, and examines how technology has affected the growth and development of air power. In addition, this course traces the use and development of air power through World War I and World War II.

AERO 202 U.S. Aviation History and Its Development into Air Power
This course is a continuation of the study of the development of aviation. This course also traces the use and development of air power in the Korean and Vietnamese conflicts, employment in relief missions and civic action programs in the late 1960s, and employment in military actions concluding with Desert Shield/Desert Storm.

AERO 310 Air Force Leadership and Management
The concepts, principles, and techniques of leadership are presented within the framework of behavioral theories. Emphasis on the leader, group situation, and their interaction as dynamic factors in an organizational environment. Historical overview of managerial development throughout recorded history with emphasis on the social and physical setting in which the manager operates. The curriculum includes effective communications, decision making, planning, and strategic management.

AERO 311 Air Force Leadership and Management
The concepts, principles, and techniques of leadership are presented within the framework of behavioral theories. Emphasis on the leader, group, situation, and their interaction as dynamic factors in an organizational environment. Historical overview of managerial development throughout recorded history with emphasis on the social and physical setting in which the manager operates. The curriculum includes effective communications, decision making, planning, and strategic management.

AERO 410 National Security Forces in Contemporary American Society I
Focuses on the Armed Forces as an integral element of society. Provides examination of a broad range of American civil-military relations, and the environmental context in which defense policy is formulated. Special themes include: societal attitudes toward the military; the role of the professional military leader-manager in a democratic society; the fundamental values and socialization processes associated with the Armed Services; the requisites for maintaining adequate national security forces; policy, economic, and social constraints on the national defense structure; the impact of technological and international developments on strategic preparedness; the manifold variables involved in the formulation and implementation of national security policy.

Athletics

Oakland University is a Division I member of the National Collegiate Athletic Association. Oakland's male athletes participate in intercollegiate baseball, basketball, cross country, golf, soccer, swimming and diving and track and field. Oakland's female athletes participate in basketball, cross country, golf, soccer, softball, swimming and diving, tennis, track and field and volleyball. In addition to the Summit League schedule, the Golden Grizzlies regularly compete against institutions in the Big Ten Conference, Horizon League and the Mid-American Conference, as well as other schools from across the nation in various sports. Oakland University is recognized across the country for its outstanding athletic programs. Most teams compete successfully at the national level and numerous athletes have been awarded All-America honors. In the first 11 years of Summit League Competition, the Golden Grizzlies claimed 20 regular-season titles, 38 tournament championships, and 28 NCAA appearances. Hundreds of student athletes have earned academic honors.

COLLEGE OF ARTS AND SCIENCES

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

Dean: *Ronald A. Sudol*

Office of the Dean:
Kathleen H. Moore, associate dean; Robert B. Stewart, Jr., associate dean; Sandra K. Dykstra, assistant dean; Steven R. Meyer, assistant dean; Janice M. Baker, administrative assistant; Gerard Jozwiak, director of computing resources; Kelly A. Conway, director of development; Kristen L. Clark, donor relations and events coordinator; Shannon A. Esselink, director of advising services; Ann M. Selva, 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 Ambassadors are:

Joel Dean, chief operating officer, Casemer Tool & Machine, Inc.
Nino Dicosmo, vice president of Aegis Public Safety Operations, New World Systems
Lisa Flynn, M.D., St. Clair Specialty Physicians
Robert Gebbie, partner, Natural Bridge Technologies
Grant Gerhart (retired), U.S. Army Tank and Automotive Research, Development and Engineering Center (TARDEC)
William Goldenberg, first vice president, Raymond James and Associates, Inc.
Michael Glass, D.D.S., Endodontic Associates PC
Gail Haines, state representative, Michigan State House of Representatives, 43rd District
William Horton, president and partner, Giarmarco, Mullins & Horton, P.C.
Thomas E. Kimble (retired), General Motors Corporation
Adam Kochenderfer, attorney, Wolfson Bolton, PLLC
Pamela Mitzelfeld, special lecturer, Oakland University Department of English
Vito Pianello, manager, Phoenix Groups
Lynne Portnoy
Richard Rassel, chairman, Butzel Long
Robert Schostak, president, Schostak Brothers & Company
Lois Shaevsky
Tobye Stein (retired), CO-OP Financial Services
Kimberly Whipple

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 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 an 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 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. No more than 8 credits in approved physical education courses will count toward a degree in the College of Arts and Sciences.
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 8 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 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

- 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.
- 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.
- 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.
- Only courses in which a student has earned at least a 2.0 may be applied to the exploratory requirement.
- Students transferring courses from another institution may apply appropriate credits toward the exploratory requirement and must meet the 12-credit minimum requirement.
- Students who have completed the MACRAO agreement at a community college must complete the exploratory requirement at Oakland University or another four-year institution.
- Completion of a double major or a College of Arts and Sciences minor or concentration satisfies the exploratory requirement.
- 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 and Honors College 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.*

NOTE: ***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.***

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 cumulative grade point average of 2.00 in the major is required for graduation. ***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.***

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.)
Chemistry (B.A. or B.S.)
Cinema Studies (B.A.)
Communication (B.A.)
Dance (B.A. or B.F.A.)
Economics (B.A.)
English (B.A.)
Environmental Science (B.S.)
Engineering Biology (B.S.)
Engineering Chemistry (B.S.)
Engineering Physics (B.S.)
History (B.A.)
International Relations (B.A.)
International Studies (B.A.)
Journalism (B.A.)
Liberal Studies (B.A.)
Linguistics (B.A.)
Mathematics (B.A. or B.S.)
Medical Physics (B.S.)
Modern Languages and Literatures (B.A.)
Music (B.A. or B.M.)
Musical Theatre (B.F.A.)
Philosophy (B.A.)
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.)
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 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, 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 complete the requirements for K-12 certification. Majors in French, German and Spanish also 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.)
Chemistry (B.A. or B.S.)
English (B.A.)
French (B.A.) K-12
German (B.A.) K-12
History (B.A.)
Mathematics (B.A. or B.S.)
Choral/General Music Education (B.M.)
Instrumental/General Music Education (B.M.)
Physics (B.A. or B.S.)
Spanish (B.A.) K-12
Studio Art Education (B.A.) K-12

Center for International Programs

The center 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 Center for International Program section of the catalog and consult with the center's director, Paul J. Kubicek at (248) 370-2363.

Interschool MBA program

For superior undergraduate students in any major in the college, the School of Business Administration offers the Master of Business Administration (MBA) degree. This is a two-year professional program in management designed for students with non-business undergraduate majors. Undergraduate business or management majors may take a variation of the standard MBA program. College of Arts and Sciences undergraduates working on a major other than one of the business areas may obtain both the undergraduate degree and MBA in an accelerated program. To be eligible, students should have a grade point average in the top 25 percent of their class. Students should apply to the School of Business Administration for admission to this accelerated program in their junior year (see the *Oakland University Graduate Catalog*).

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 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***. 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. 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 at 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 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***. 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*:

applied statistics
advertising (see *Communication and Journalism*)
anthropology
art history
biology
chemistry
cinema studies
Chinese language and civilization
communication
dance
economics
English
environmental science
graphic design
history
international relations
international studies
jazz studies
journalism
linguistics
mathematics
modern languages
music
philosophy
physics
political science
psychology
public relations (see *Communication and Journalism*)
religious studies: Christianity studies
religious studies: Islamic studies
religious studies: Judaic studies
sociology
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, history, integrated science, mathematics, modern languages (French, German, 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 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***. 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 Academic Options* at the end of the College of Arts and Sciences portion of the catalog and include the following:

American studies
archaeology
criminal justice
environmental studies
French studies
pre-medical studies in medical, dentistry, optometry and veterinary medicine
pre-law studies
religious 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 3-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.

No more than 8 credits in the major discipline and 8 credits in other courses required for the major may be counted toward these credit totals, except by students majoring in linguistics or journalism. For distribution purposes, cross-listed courses count under the department in whose listing the course description is given in full. Students who have completed the 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, 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 4 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.

Cooperative education

Students majoring in one of the College of Arts and Sciences disciplines have the opportunity to participate in a cooperative education (co-op) program. Co-op offers students the chance to obtain work experience directly related to their chosen careers or fields of study. For example, chemistry majors may work in chemistry laboratories, pre-law students in law offices and journalism and communication majors in various writing jobs. By involving students in an on-the-job experience, co-op helps them make decisions about their future careers. In addition to augmenting their classroom work, it helps them defray the cost of college.

To participate in the co-op program, students should have junior or senior standing, a 2.80 grade point average and the approval of their faculty adviser. Students must agree to accept employment for at least two semesters and should not expect to work only during the summer semester. Interested students should contact the coordinator of cooperative education in the Office of Placement and Career Services.

DEPARTMENT OF ART AND ART HISTORY

310 WILSON HALL (248) 370-3375
Fax: (248) 370-3377

Chairperson: *Andrea Eis*

Professors emeriti: *Bonnie F. Abiko (Art History), Carl F. Barnes, Jr. (Art History and Archaeology), John Cameron (Art History)*

Professors: *Janice G. Schimmelman (Art History), Susan E. Wood (Art History)*

Associate professors: *Claude Baillargeon (Art History), Andrea Eis (Studio Art), Stephen Goody (Studio Art; Director, Oakland University Art Gallery), Tamara Jhashi (Art History), Vagner M. Whitehead (Studio Art)*

Assistant professors: *John J. Corso, Jr. (Art History), Susan E. Evans (Studio Art), Lynn M. Galbreath Fausone (Studio Art), Taylor Hokanson (Studio Art), Cody VanderKaay (Studio Art), Shuishan Yu (Art History)*

Special instructor: *Sally S. Tardella (Studio Art)*

Special lecturers: *Meredith Adamisin (Studio Art), Corrie Baldauf (Studio Art), John Corbin (Studio Art), Amy E. Feigley-Lee (Studio Art), Richard Haley (Studio Art), Gary Hesse (Studio Art), David Lambert (Studio Art), Christopher Lee (Studio Art), Christine McCauley (Studio Art), Louisa Ngote (Art History), Rachel Reynolds (Studio Art), Donna Voronovich (Art History)*

Lecturers*: Leslie Cavell (Art History), Catheryn L. Cheal (Art History), Grace Frost (Studio Art), Andrew W. Thompson (Studio Art), Hui Yang (Studio Art), Bonnie Zielinski (Studio Art)*

Chief adviser: *Claude Baillargeon*

Studio art K-12 art education adviser*: Lynn Galbreath Fausone*

Director of Studio Art: *Sally S. Tardella*

The department offers programs of study leading to the Bachelor of Arts degree with a major in Art History, in Studio Art or in 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, studio art and graphic design 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 follows (a minimum of 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 Introduction to Western Art I
   AH 101 Introduction to Western Art II
   AH 104 Introduction to Arts of Asia and the Islamic World
2. AH 200 Critical Thinking and Writing in Art History, which 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.
3. 16 credits from the following (at least one course must be selected from each category):

Non-Western: AH 301, 304, 305, 307, 308, 309, 320, 357, 385
Ancient/medieval: AH 310, 312, 314, 322, 326, 345, 385
Renaissance/Baroque: AH 330, 334, 340, 343, 345, 348, 385
American/modern: AH 343, 350, 352, 360, 361, 362, 363, 367, 368, 369, 370, 385

[AH 343 Russian Art may satisfy the requirement *either* for Renaissance/Baroque *or* for American/modern art, but not both. AH 345 German Art may satisfy the requirement *either* for ancient/medieval *or* for Renaissance/Baroque art, 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.]

4. AH 387 Seminar in Critical Theory
5. Four elective credits from AH courses
6. SA 105 Drawing for Non-Majors or SA 340 Historic Painting Techniques I
7. AH 495 and AH 496 Senior Thesis in Art History

Students must also complete one semester of a foreign language or pass a competency exam with the approval of the Department of Modern Languages and Literatures. 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. program

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 (34):
   SA 100 Foundations of Visual Literacy
   SA 102 Foundations of Studio Art
   SA 104 Foundations of Media Art

SA 200 Critical Theory and Practice in Art
SA 201 Beginning Drawing
SA 300 Professional Practices and Portfolio Design
SA 491 Senior Thesis in Studio Art
AH 101 Introduction to Western Art II
AH 291 Concepts of Modern and Postmodern Art

2. 28 credits in one of the following specializations:

Drawing:
SA 216 Beginning Painting
SA 301 Intermediate Drawing
SA 302 Life Drawing I
SA 380 Advanced Drawing and Painting I
SA 480 Advanced Drawing and Painting II

Two elective 300 or 400 level courses; one must be an SA course; one can be SA or one of AH 361, 362, 368 or 369.

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

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

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

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 (SEHS). 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:

Core courses, studio art:

SA 100	Foundations of Visual Literacy
SA 102	Foundations of Studio Art
SA 104	Foundations of Media Art
SA 130	Introduction to Graphic Design
SA 160	Photography for Non-Majors*
SA 201	Beginning Drawing
SA 216	Beginning Painting
SA 491	Senior Thesis in Studio Art

*Students specializing in photography should not take SA 160.

Core courses, art history:

AH 100	Introduction to Western Art I
AH 101	Introduction to Western Art II
AH 104	Introduction to Arts of Asia and Islamic World
or	
alternative non-Western AH course	
AH 291	Concepts of Modern and Postmodern Art

Choose one of the following specializations:

1. **Drawing**

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

2. **Painting**

SA 302	Life Drawing I
SA 316	Intermediate Painting
SA 380	Advanced Drawing and Painting I
SA 480	Advanced Drawing and Painting II
1 elective 300 or 400 level studio art course	

3. **Photography**

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

4. **New media**

SA 268	Video Art I
SA 368	Video Art II
SA 370	Internet Art

SA 383	Advanced New Media
SA 482	Advanced Photography and New Media

Co-requisite 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.

The K-12 studio art education program also includes a sequence of undergraduate course work in art education and education to include: AED 301, 302, 303, 304, 455; EED 310 or SED 300; EED 420; RDG 338; FE 406; SE 355. Further details on program and admission requirement 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 495-496 capstone 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, 101, 104.
2. A total of 8 credits, one course from any two of the following categories:
   Non-Western: AH 301, 304, 305, 307, 308, 309, 320, 357, 385
   Ancient/medieval: AH 310, 312, 314, 322, 326, 345, 385
   Renaissance/Baroque: AH 330, 334, 340, 343, 345, 348, 385
   American/modern: AH 343, 350, 352, 360, 361, 362, 363, 367, 368, 369, 370, 385
   [AH 343 Russian Art may satisfy the requirement *either* for Renaissance/Baroque *or* for American/modern art, but not both. AH 345 German Art may satisfy the requirement *either* for ancient/medieval or for Renaissance/Baroque art, 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.]
3. 4 elective credits from AH courses.

Requirements for the liberal arts minor in studio art

A minimum of 24 credits in studio art courses, to be 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. SA 100, and SA 102 or 104.
2. 16 credits from SA courses; at least one 4 credit course must be at the 300 level.

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 3.0 may be counted toward the graphic design minor.

1. SA 102, 104 and 130.
2. DES 230, 330 and 335.

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*.

ART HISTORY

AH 100 Introduction to the History of Western Art I (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 Introduction to the History of Western Art II (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 Introduction to 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 (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. Open to Studio Art and Art History majors only. *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: AH 100, AH 101 or AH 104, and written permission of the instructor.

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: 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: 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: 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: 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: 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: 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: 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: AH 100.

AH 312 Greek Art (4)
The development of architecture, sculpture and painting in classical Greece from ca. 1000 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 exploration area.*
Prerequisite: 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: 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: 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: 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: 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: 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: AH 101.

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

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

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

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: 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: AH 101 or WGS 200.

AH 352 African-American Art (4)
The arts of African-Americans from the colonial period to the present.
Prerequisite: 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, culture exchange, and ideological engagement.
Prerequisite: 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: AH 101.

AH 361 Twentieth-Century Art I, 1900-1945 (4)
The development of sculpture, painting and related media in the western world from 1900 to 1945.
Prerequisite: AH 101.

AH 362 Twentieth-Century Art II, 1945 to present (4)
The development of sculpture, painting and related media in the western world from 1945 to the present.
Prerequisite: 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: 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: 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: 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: 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: AH 101.

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

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: 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: AH 100, 101 or 104 as appropriate for the seminar; AH 200 and permission of instructor.

AH 387 Seminar in Critical Theory (4)
Introduction to critical theory and the application of its methodologies to the study of art. Prerequisite: permission of instructor. *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.*

AH 390 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: 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: 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 (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: permission of Director of International Education.

AH 396 Directed Study Abroad in Art History (1, 2 or 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: permission of instructor.

AH 399 Field Experience in Art History (4)
Field experience for art history 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 SA 399.
Prerequisite: permission of instructor.

AH 495-496 Senior Thesis in Art History (2 each)
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 for AH 495: 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.
Prerequisite for AH 496: AH 495.

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

STUDIO ART

The following courses may include life studies from the nude: SA 201, 216, 301, 302, 316, 317, 340, 341.

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 (4)
Students explore the basic elements of design and principles of art in black-and-white and color through two-dimensional and three-dimensional work.

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. Can not 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.

SA 130 Introduction to Graphic Design (4)
Students will explore the theory and practice of graphic design as applied art form through traditional hands-on and digital design assignments.
Prerequisite: SA 102 and SA 104.

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: SA 100 or 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: SA 102.

SA 216 Beginning Painting (4)
Introduction to the technical, intellectual, inventive and expressing possibilities of oil painting on canvas.
Prerequisite: 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: 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: 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: SA 100, 104 and any 200 level SA 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: SA 201.

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

SA 308 Large Format Drawing (4)
Explores the formal, conceptual, expressive and dynamic possibilities of large-scale drawing.
Prerequisite: 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 the cutting edge of new media and contemporary art.
Prerequisite: 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: 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: SA 302.

SA 340 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: AH 101 or SA 102.

SA 341 Historic Painting Techniques II (4)
Building on SA 241, course focuses on a particular epoch or artist for a more refined directed individual course of study.
Prerequisite: 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: 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: 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: 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: 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: 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: 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: SA 301 or 316.

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: SA 260, 350 and either SA 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: 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: 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: permission of instructor.

SA 396 Directed Study Abroad in Studio Art (1, 2 or 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: 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: 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: permission of instructor.

SA 480 Advanced Drawing and Painting II (4)
In-depth individual study and group critique as students begin work on the coherent body of artwork in drawing and/or painting that will form their student thesis work.
Prerequisite: SA 380.

SA 482 Advanced Photography and New Media (4)
In-depth individual study and group critique as students begin work on the coherent body of artwork in photography and/or new media that will form their student thesis work.
Prerequisite: 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: 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: permission of instructor.

GRAPHIC DESIGN

DES 230 Graphic Design I (4)
Conceptual and technical approaches to graphic design through two- and three-dimensional design projects. Emphasis on the use of type, four-color and spot color, line, art, and continuous tone images in the preparation of design practices for visual communication.
Prerequisite: SA 130 with a grade of 3.0 or higher.

DES 330 Web Design (4)
Planning and production of visually driven websites with emphasis on the creative use of Internet, Intranet, and World Wide Web systems.
Prerequisite: SA 130 with a grade of 3.0 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: SA 130 with a grade of 3.0 or higher.

BIOCHEMISTRY PROGRAM

Coordinator: *Arthur W. Bull (Chemistry)* (248) 370-2347

Biochemistry Committee: *Sitaramayya Ari (Chemistry), Arik Dvir (Biological Sciences), John M. Finke (Chemistry), Anne L. Hitt (Biological Sciences), Susmit Suvas (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.

The specialized research facilities for cellular and analytical biochemistry at Oakland University include tissue culture facilities, an ultracentrifugation laboratory, isotope laboratories with beta and gamma counters, equipment for gas and high pressure liquid chromatography, and GC/MS, UV-vis, fluorescence, NMR, EPR, laser Raman, and atomic absorption spectrometers. Recent biochemical instrumentation acquisitions include a flow cytometer, a radioisotopic image analyzer, automated capillary electrophoresis, confocal microscope and DNA sequencer.

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 course work in biological sciences (16 credits), chemistry (32 credits) and biochemistry (12 credits) as detailed below. 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. 16 or more credits of biology chosen in consultation with the biochemistry program coordinator from the following courses: BIO 111, 113, 309, 310, 319, 320, 321, 322, 323, 324 or 341. Other appropriate courses may be approved on an individual basis.
2. 32 credits of chemistry, including CHM 157-158 (or 167-168), 234-235, 237, 325, 342 and 343.
3. 12 or more credits of biochemistry including BCM 453, 454 and 457 and additional credits selected from the following courses: BIO 407, 423, 441; CHM 458, 553, 554, 581; or BCM 490. Other appropriate courses may be approved on an individual basis.
4. Corequisites in mathematics (MTH 154 and 155) and physics (PHY 151 and 152). STA 226 and CHM 220 are recommended electives.
5. Admission to major standing as described above at least three semesters prior to graduation.

Program honors

Program honors may be granted to graduating seniors in biochemistry on the basis of high academic achievement (minimum 3.60 overall grade point average) and excellence in biochemical research at Oakland University.

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 with the exception of PHY 158, which needs to be completed. 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 PHY 158, which must be completed, and five courses in biology/biochemistry. Students interested in a medical career should refer to the pre-medical studies concentration in medicine, dentistry, optometry and veterinary medicine (Other Academic Options) and consult with the biology or biochemistry adviser and with the pre-medical studies adviser, Professor Keith Berven.

Course Offerings

The program 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*.

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: 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: BCM/CHM 453.

BCM 457 Biochemistry Laboratory (3)
Techniques of extraction, separation, identification and quantification of biomolecules, including electrophoresis, chromatography and radioisotope techniques, with emphasis on mathematical treatment of experimental data. Identical with CHM 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: BCM/CHM 453, which may be taken concurrently.

BCM 489 Biotechnology Internship (2, 3 or 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: BCM 453, approved major standing, permission of instructor.

BCM 490 Biochemistry Research (1, 2, 3 or 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: permission of instructor.

DEPARTMENT OF BIOLOGICAL SCIENCES

375 DODGE HALL (248) 370-3550
Fax: (248) 370-4225

Chairperson: *Arik Dvir*

Professors emeriti: *Francis M. Butterworth, John D. Cowlishaw, William C. Forbes, Esther M. Goudsmit, R. Douglas Hunter, Asish C. Nag, John R. Reddan, Nalin J. Unakar*

Professors: *G. Rasul Chaudhry, George J. Gamboa, Sheldon R. Gordon, Charles B. Lindemann, Virinder K. Moudgil*

Associate professors: *Keith A. Berven, Arik Dvir, Thaddeus A. Grudzien, Feona M. Hansen, Anne L. Hitt, Shailesh K. Lal, Barkur S. Shastry, Satish K. Walia, Douglas L. Wendell*

Assistant professors: *Amy Banes-Berceli, Chhabi Govind, Lan Jiang, Zijuan Liu, Gerard Madlambayan, Susmit Suvas, Scott D. Tiegs*

Adjunct professors: *Jeffrey L. Garvin, Tom Madhavan, Ronny Otero, Barry S. Winkler*

Adjunct associate professors: *Andrew F. X. Goldberg, Nalini Motwani, Miguelangelo J. Perez-Cruet*

Adjunct assistant professors: *Sumit Dinda*

Special instructor: *Mary Ann Bednarski*

Special lecturers: *Thomas G. Fishwild, Holly Giener, Sarah Hosch, Ann Sturtevant, Mark A. Sturtevant, Mary Tracy-Bee*

Lecturers: *Philip T. Clampitt, Gerard R. Jozwiak, Jenn-Tser Pan, Tracy L. Wacker, Jonathan F. Yates*

Chief adviser: *Anne L. Hitt*

The Department of Biological Sciences offers programs of study leading to Bachelor of Arts, Bachelor of Science, Master of Science and Master of Arts degrees in biology, and a Doctor of Philosophy degree in the biomedical sciences with a specialization in biological communication. The undergraduate programs prepare students for graduate study in the life sciences; laboratory work and research in industries concerned with biological materials; professional careers in medicine, dentistry, optometry or veterinary medicine; nursing or other allied health areas; or teaching science in high school. This liberal arts program in biology is 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 offers a diversified selection of courses and research programs in biochemistry, 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. With permission, they may elect 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.

Admission to major standing

To be eligible for a degree in biology, students must be admitted to major standing by the Department of Biological Sciences at least three semesters before graduation. This procedure ensures that an appropriate program of study is completed by graduation. Students may be admitted to major

standing after filing a satisfactory curriculum plan and completion of one year of introductory biology plus two other BIO courses, one year of general chemistry and mathematics through MTH 141.

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 (BIO 111 and above) required, including at least nine lecture courses and a minimum of four BIO laboratory courses. Students must complete:

1. BIO 111, 113, 116, 315, 341, 387, and 495
2. One course from each of the following areas:
   Cell-Molecular/Biomedical: BIO 309, 319, 321, 323, 417
   Systems Biology: BIO 301, 303, 311, 317, 353 or 373
3. Two additional biology elective courses, one of which must be a 400-level lecture course (BIO 405, 490, 495 and 497 do not satisfy this requirement).
4. Minimum of three biology laboratory courses above the introductory level (one of which may be BIO 490).
5. 14 credits of chemistry: CHM 157-158, 234.
6. 10 credits of physics: PHY 101-102 or 151-152, depending on MTH option, and 158.
7. MTH 141 (or course competency as determined by the Department of Mathematics and Statistics).
8. STA 228 (recommended) or STA 225.

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.

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 (BIO 111 and above) is required, including at least ten lecture courses and a minimum of five BIO laboratory courses. Students must complete:

1. BIO 111, 113, 116, 325, 341, 387, 425 and 495.
2. One course from each of the following areas:
   Cell-Molecular/Biomedical: BIO 309, 319, 321, 323, 417.
   Systems Biology: BIO 301, 303, 311, 317, 353 or 373.
3. Three additional biology elective courses, one of which must be a 400-level lecture course (BIO 405, 425, 490, 495 and 497 do not satisfy this requirement).
4. Minimum of four biology laboratory courses above the introductory level (one of which may be BIO 490).
5. 20 credits of chemistry: CHM 157-158, 234 and either CHM 235 and 237 or CHM 220 and 325.
6. 10 credits of physics: PHY 101-102 or 151-152, depending on MTH option, and PHY 158.
7. MTH 141 and 122 or 154 (or course competency as determined by the Department of Mathematics and Statistics).
8. STA 228 (recommended) or STA 225.

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.

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

Adviser: *Feona M. Hansen*

Students may elect this specialization in their sophomore year. Biology courses required for the anatomy specialization are: BIO 205, 206, 305, 306, 317, 323, 324, 381 and 460. The selection of all courses should be planned by consultation with the adviser.

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

Adviser: *Anne L. Hitt*

Students considering a career in cell biology, biotechnology or molecular biology may elect this specialization in their sophomore year. Biology courses required are: BIO 309, 310, 319, 320, 326, 342, 417, 418, 441, and 425 or 437. The selection of all courses should be planned in consultation with the adviser.

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

Adviser: *Satish K. Walia*

Students may elect this specialization in their sophomore or junior year. Biology courses required for the microbiology specialization are: BIO 319, 320, 421, 437; and one of the following electives: BIO 417, 423, 441, 443. The selection of all courses should be planned in consultation with the adviser.

Requirements for the modified major in biology (B.S.) with a concentration in applied statistics

Adviser: *Keith A. Berven*

This concentration is open to students pursuing either a Bachelor of Arts or a Bachelor of Science degree in biology. Students should elect this concentration in their sophomore year. Required courses are STA 226 and either 323 or 324, as well as BIO 490 (4 credits).

Secondary Teacher Education Program (STEP): 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 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 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. Significant work in 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, 309, 315, 323 or 325
Physiology:	BIO 207 or 321
Zoology:	BIO 205, 303, 305, 317, 323, 353 or 465
Botany:	BIO 311, 327 or 373
Ecology:	BIO 301, 303 or 387
Genetics:	BIO 341
Microbiology:	BIO 307, 319, 421 or 465
Evolution:	BIO 113 or 387

2. A minimum of four biology laboratory courses (five laboratory courses for the B.S. degree).
3. One course in earth science, chosen from ENV 308, 373; PHY 106
4. One course in science, technology and society, chosen from AN 300; CHM 300; ENV 308, 312, 373; PHL 318.

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, IST 397, FE 406, RDG 338 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 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, BIO 113, CHM 157, CHM 158, CHM 234, ENV 308, PHY 101/151, PHY 102/152, PHY 104, PHY 106/GEO 106.

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.

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 Biology adviser.

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

Coordinator: *Fatma Mili (Engineering)*

Advisers: *Shailesh K. Lal (Biology), Mohammad Siadat (Engineering)*

The engineering biology major degree program is offered jointly by the Department of Biological Sciences in the College of Arts and Sciences, and by the School of Engineering and Computer Sciences. This program requires a minimum of 130 credits including general education requirements. Students should consult with advisers for the majors to be certain they are on track for all requirements.

Core courses *(86 credits)*

MTH 154, 155	Calculus I and II*
MTH 254	Multivariable Calculus
APM 255	Introduction to Differential Equations with Matrix Algebra
STA 226	Applied Probability and Statistics
PHY 151, 152	Introductory Physics I and II*
CHM 157, 158	General Chemistry I and II (included labs)
CHM 201	Introduction to Organic and Biological Chemistry
BIO 111, 113, 116	Biology I and II and lab*
BIO 321	Physiology, *or* BIO 309 Biology of the Cell *or* BIO 319 Microbiology
BIO 325	Biochemistry I
BIO 341	Genetics
EGR 120	Computer Graphics and CAD
EGR 141	Computer Problem Solving/Engineering/Computer Science
EGR 240	Introduction to Electrical and Computer Engineering
EGR 250	Introduction to Thermal Engineering
EGR 280	Design/Analysis/Electromechanical Systems
EGB 390	Introduction to Engineering Biology
EGB 490	Research Project/Capstone Design

**These course sequences satisfy the general education requirements for the formal reasoning, natural science/technology and knowledge applications categories.*

Professional track (*students must choose one of five tracks listed below*)
Track I: Bioinformatics (*16 credits*)
BIO 443 and CSE 461 and two courses selected from: CSE 230, 345 or 361

Track 2: Biomedical/biophysical engineering (*16 credits*)
PHY 325; ME 456 or PHY 421; ME 361, ME 461

Track 3: Computational Biology (*15 credits*)
MTH 275, APM 450, BIO 482 or BIO 483, and one course selected from: APM 357, 433, 434 or 455

Track 4: Electronic Devices/Signal Analysis/Bio-sensors (*16 credits*)
ECE 276, ECE 327, CSE 465, CHM 428

Track 5: Molecular Engineering Biology (*16 credits*)
BIO 319, BIO 423, BIO 441, and one course selected from: PHY 325, BIO 309, BIO 323

Students in this program are not required to complete the College of Arts and Sciences distribution requirements, but must complete the general education requirements including capstone and writing

intensive courses. In addition, this program requires an average grade of 2.00 in courses taken to satisfy the biology, chemistry, mathematical sciences and engineering requirements.

Requirements for departmental honors in biology

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, 490, 495 and 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.

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

Adviser: *Keith A. Berven*

Committee: *Andrew F.X. Goldberg (Eye Research Institute), Kathleen H. Moore (Chemistry), John R. Reddan (Biological Sciences*)

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, including some laboratories and the required introductory biology sequence (BIO 111, 113, 116) and at least three of the following:
   Cell Biology: BIO 309, 310
   Genetics: BIO 341, 342
   Physiology: BIO 207 or 321 and 322
   Biochemistry: BIO 325, 326, 425, or CHM 453, 457, 458
   Developmental biology: BIO 323, 324
   Microbiology: BIO 319, 320
2. 20 credits of chemistry: CHM 157, 158, 234, 235, 237.
3. 10 credits of physics: PHY 101-102 or 151-152 and PHY 158.
4. 8 credits of mathematics: MTH 141 plus one of MTH 122, 154, STA 225, 226, 228.

Note: preoptometry concentration students must take 12 credits of mathematics including one statistics course (STA 225, 226 or 228).

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). The committee strongly recommends WRT 142 or 144 for better preparation for the non-science portions of the standardized tests. This concentration does not constitute a major. Students must elect a major from those offered by the university. Interested

students should consult with Keith Berven, pre-medical concentration coordinator, for counseling and assistance in planning their academic programs.

Biochemistry program

In cooperation with the Department of Chemistry, the Department of Biological Sciences offers a Bachelor of Science degree program with a major in biochemistry.

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 BIO 111, 113 and 116. At least 8 credits must be taken in courses numbered 301 or above. Students majoring in other life science areas should read the restrictions on dual use of courses to satisfy both major and minor requirements.

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, 104, 110, 121 and 300 may not be counted toward this requirement. Course-work shall include:

1. BIO 111, 113, 116 or equivalent.
2. The remaining credits shall include one course each from the following categories:
   a. Molecular/cellular biology: BIO 309, 315, 321, 323, 325, 341, 351;
   b. Organismic biology: BIO 205, 207, 311, 319, 327, 353, 373;
   c. Evolutionary/ecological biology: BIO 301, 303, 317, 387.
3. SED 427, Methods of Teaching Secondary Students.

Non-science majors must complete an additional 4 credits in chemistry for a total of 24 credits for this minor. Students are also expected to have pre-calculus mathematics.

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. 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 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*.

The following courses are designed particularly for non-biology majors and are not counted toward major or minor requirements.

BIO 101 Foundations of Modern Biology (4)
Principles of biochemistry, energy transformations, 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. *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 multi-cellular organisms and eventually to humans is presented through lectures, text readings and films. Offered fall and winter semesters. *Satisfies the university general education requirement in the natural science and technology knowledge exploration area.*

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.
Prerequisite: BIO 111.

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. *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 for writing intensive: completion of the university writing foundation requirement.*

The following courses are designed particularly for the biology major and minor and for other majors in the sciences.

BIO 111 Biology (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 (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: 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 semesters.
Prerequisite or corequisite: BIO 111 or BIO 113.

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: BIO 111.

BIO 206 Human Anatomy Laboratory (1)
Dissection and identification of the musculoskeletal system as well as other major organ systems using human cadavers.
Prerequisite or corequisite: BIO 205.

BIO 207 Human Physiology (4)
A 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: BIO 111.

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: BIO 111, 113.

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: BIO 111, 113, 116.

BIO 305 Histology (4)
Structural organization of vertebrate tissues and organs in relation to cell and tissue functions. Offered fall semester.
Prerequisite: BIO 111, 113.

BIO 306 Histology Laboratory (1)
Microscopic examination and identification of vertebrate tissues and organs. Preparation of histological slides.
Prerequisite or corequisite: BIO 305.

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: BIO 111.

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: BIO 111, 113; CHM 157.

BIO 310 Biology of the Cell Laboratory (1)
Laboratory experience in cellular biology.
Prerequisite or corequisite: BIO 309.

BIO 311 Botany (5)
A course in 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. Includes laboratory experience.
Prerequisite: BIO 111, 113, 116.

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: BIO 111, and CHM 201 or 234.

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: BIO 111, 113, 116.

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: BIO 325 or CHM 453.

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.
Prerequisite or corequisite: BIO 319.

BIO 321 Physiology (4)
A detailed study of physiological principles: the internal environment, bioenergetics, transport, osmoregulation, respiration, conduction, contraction and circulation.
Prerequisite: BIO 315 or 325.

BIO 322 Anatomy and Physiology Laboratory (1)
Laboratory exercises in anatomical organization from cellular to organ systems with integrated physiological experiments.
Prerequisite or corequisite: BIO 207 or 321.

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: BIO 309 or 341.

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.
Prerequisite or corequisite: BIO 323.

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: BIO 111.
Prerequisite or corequisite: CHM 234.

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: BIO 116. Prerequisite or corequisite: BIO 325.

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: BIO 111, 113, 116.

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: BIO 111.

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: BIO 111, 116. Prerequisite or corequisite: BIO 341.

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: BIO 111, 113; CHM 158.

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: sophomore standing.

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: BIO 116 (with a grade of 2.0 or higher).

BIO 355 Neuropharmacology (4)
Examination of drugs that affect nervous tissue. Include 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: CHM 234 and BIO 207 or 321.

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: BIO 111, 113.

BIO 377 Marine Biology (3)
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: BIO 111, 113.

BIO 381 Gross Human Anatomy (4)
Combined lectures and laboratories primarily for upper-level health science majors. Study of human body systems with emphasis on the musculoskeletal system; morphological correlate of human physiological functions; and dissection of cadaver.
Prerequisite: BIO 321 and permission of instructor.

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: BIO 111, 113.

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

BIO 401 Advanced Human Physiology (4)
Lectures and discussion emphasizing the human organism and the experimental basis for current concepts and techniques. Topics include reproduction, circulation, respiration, electrophysiology and cellular mechanisms in physiological processes. Offered fall semester.
Prerequisite: BIO 207 or 321.

BIO 403 Advanced Human Anatomy (4)
Advanced study of anatomy through human cadaver dissection. Topics include organ structure and relationships, blood supply innervation, and lymphatics. Clinical correlations and applications will be discussed.
Prerequisite: BIO 205 or 206.

BIO 405 Directed Readings in Biology (1-4)
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: 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: BIO 325.

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: BIO 207 or 321.

BIO 413 Advanced Topics in Cell Physiology (4)
Discussion and lecture course offered by faculty members with research interests in cell physiology. Topics will 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: BIO 325 or 341.

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.
Prerequisite or corequisite: BIO 417.

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: BIO 341 and either STA 225 or 226.

BIO 421 Medical Microbiology (4)
Bacterial and viral human pathogens, emphasizing their etiology, physiology, pathogenesis, epidemiology, control and diagnosis.
Prerequisite: BIO 325.

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: BIO 341 or 325.

BIO 425 Biochemistry II (4)
A continuation of BIO 325 and 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: BIO 325.

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: BIO 309.

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: junior standing.

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

BIO 437 Virology (4)
Fundamentals of virology including classification of bacteriophages, plant and animal viruses, viral multiplication, and pathogenesis.
Prerequisite: BIO 309, 315, 319, or BIO 325.

BIO 441 Microbial Biotechnology (4)
Microbial genetics, emphasizing the basic aspects of bacteriophage and plasmid genetics applied to biotechnology.
Prerequisite: BIO 341 or 319.

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: BIO 341.

BIO 444 Functional Genomics and Bioinformatics Laboratory (1)
Explores molecular biology, genomics and bioinformatics techniques useful in study of genomes and proteomes.
Prerequisite or corequisite: BIO 443.

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: permission of faculty supervisor.

BIO 460 Neuroanatomy (4)
The brain, brain stem, spinal cord and associated structures with respect to their morphology, development, function and the integration of these functions in motor activity. Certain lesions and their clinical significance will be discussed.
Prerequisite: BIO 205 or 381.

BIO 461 Neuroanatomy Laboratory (1)
Laboratory experience in neuroanatomy. Identification of basic neuroanatomical structures of the human.
Corequisite: BIO 460.

BIO 465 Medical Parasitology and Mycology (4)
Integrated lecture-lab. Study of medically important protozoan, helminth, arthropod and mycotic organisms; their morphology, biology, pathogenesis, clinical manifestations, immunology, epidemiology and control. Laboratory methods for identification of medically important parasites.
Prerequisite: BIO 111, 113, 116.

BIO 471 Ecology of Streams and Rivers (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: BIO 113; BIO 301 recommended.

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: BIO 207, 301 or 321.

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: one course in either ecology, behavior or evolution 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, predatorprey interactions, community structure and species diversity. Offered alternate fall semesters.
Prerequisite: BIO 301 or 387.

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: BIO 353.

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: BIO 207 or 321 or 351.

BIO 490 Independent Research (1-4)
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 a 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: written agreement with a biology faculty supervisor.

BIO 491 Selected Topics in Biology (1-5)
Advanced topics in a specialized area of biological sciences. The topics and prerequisites may vary. May be repeated for additional credit.

BIO 495 Scientific Inquiry and Communication (3)
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: junior 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: written agreement with a biology faculty supervisor.

DEPARTMENT OF CHEMISTRY

260 SCIENCE AND ENGINEERING BUILDING (248) 370-2320
Fax: (248) 370-2321

Chairperson: *Arthur W. Bull*

Distinguished professor emeritus: *Paul Tomboulian*

Professors emeriti: *Gottfried Brieger, Denis M. Callewaert, Dagmar Cronn, Julien Gendell, Kenneth M. Harmon, Steven R. Miller*

Distinguished professor: *Michael D. Sevilla*

Professors: *Sitaramayya Ari, Maria Szczesniak Bryant, Arthur W. Bull, Kathleen Moore, Joel W. Russell, John V. Seeley, R. Craig Taylor*

Associate professors: *Ferman Chavez, Roman Dembinski, Ghassan Saed, Linda Schweitzer, Xiangqun Zeng*

Assistant professors: *Edith Chopin, Greg A.N. Felton, John M. Finke, Nessan Joseph Kerrigan, Jennifer Tillinger*

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, Stacy K. Seeley*

Adjunct assistant professors: *Janet Bennett, Gerald G. Compton, Naomi Eliezer*

Lecturers: *R. Terry Begnoche, Douglas Herzog, James Leidel, Thomas Ott, Hari Prasad, Mark Richardson, William Robert, Cole Shoemaker, Douglas Thiel, 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 studies is completed by graduation.

Applications for major standing in chemistry will be approved after completion of CHM 157 (or 167), 158 (or 168), 220, 234-235, 237, PHY 151 and MTH 154 with a grade point average of 2.00 or better.

Course work more than 10 years old is subject to re-evaluation 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 wish 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/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 44 credits in chemistry and 16 credits of corequisite courses, including:

Core curriculum:		**Credits**
CHM 157	General Chemistry I	5
CHM 158	General Chemistry II	5
(or 167-168)	Honors General Chemistry I & II	10
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 (two semesters)	0
CHM 438	Inorganic/Organic Laboratory	2
BCM/CHM 453	Biochemistry I	3
Corequisite courses:		
MTH 154-155	Calculus	8
PHY 151-152	Introductory Physics	8

CSE 130 is a recommended elective for chemistry majors.

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 16 credits of corequisite courses, plus 8 elective credits in chemistry at the 400 level of which at least two credits must be laboratories. The specific selection of the 8 elective credits in chemistry at the 400 level must be approved in writing by the chemistry department's chief adviser. CHM 491 (3 credits) may be included as part of these elective credits as this course satisfies the university general education capstone requirement. Another option for the general education capstone requirement is BCM/CHM 457 Biochemistry Laboratory (3 credits). The full degree requirements for the Bachelor of Science degree with a major in chemistry are detailed below:

Core curriculum:		**Credits**
CHM 157	General Chemistry I	5
CHM 158	General Chemistry II	5
(or 167-168)	Honors General Chemistry I & II	10
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 (two semesters)	0
CHM 438	Inorganic/Organic Laboratory	2
BCM/CHM 453	Biochemistry	3
Advanced set of chemistry courses (400 or above) (at least 2 credits must be laboratories)		8
Corequisite courses:		
MTH 154-155	Calculus	8
PHY 151-152	Introductory Physics	8

CSE 130 is a recommended elective for chemistry majors.

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

Coordinator: *Ching L. Ko (engineering), 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. Requirements include:

1. MTH 154, 155, 254; APM 255 (or 257) and PHY 151-152.
2. CHM 157-158 (or 167-168 or 162-163), 234-235, 237, 325, 342-343, 348 and 471; one lecture or laboratory course (2 or 3 credits) above CHM 400.
3. EGR 120, 141, 240, 250, 260, 280; ME 331; choice of 8 credits from ME 438, 439, 448, 449, 456, 457 and 482.

Students in this program are not required to complete the College of Arts and Sciences distribution requirements. Students must complete the university's general education, including the capstone course of either CHM 491 or ME 490 (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. For limitations on free electives see the Policies on Electives section in the School of Engineering and Computer Science portion of the catalog.

Secondary Teacher Education Program (STEP): Chemistry

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 GPA of 3.00 in both 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. 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, such as PHY 106 or ENV 308, 373;
2. one course in science, technology and society, CHM 300;
3. one biology course, BIO 111 or some other course approved by the STEP adviser.

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, IST 397, FE 406, RDG 338 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 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, BIO 113, CHM 157, CHM 158, CHM 234, ENV 308, PHY 151/101, PHY 152/102, PHY 104, PHY 106/GEO 106.

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 adviser.

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, 490 and 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, 490 or 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 program who wish to minor in chemistry must take CHM 157-158 (or 167-168), 234-235, 325 and 342. 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. These must include CHM 157-158 (or 167-168), plus CHM courses from one of the following two options:

1. CHM 234, 220 and 325. This option is restricted to students who also take BIO 325 (e.g., biology majors).
2. CHM 201, 220 and 325. Non-biology majors would normally select this option.

Non-science majors must complete an additional 4 credits in science for a total of 24 credits. In addition SED 427, Methods of Teaching Secondary Students (chemistry), is required.

Generally, a cumulative grade point average of 3.00 is required in courses 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.

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 with the exception of PHY 158, which needs to be completed. 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 PHY 158, which must be completed, and five courses in biology/biochemistry. Students interested in a medical career should refer to the pre-medical studies concentration in medicine, dentistry, optometry and veterinary medicine (Other Academic Options) and consult with the chemistry or biochemistry adviser and with the pre-medical studies 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*.

The various introductory chemistry courses (104, 143, 157, 162 and 167) 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 104 or 143.

CHM 104 is designed primarily for pre-nursing students. Computer science and engineering students may enroll in CHM 143, 157, 162 or 167. Science majors (biology, biochemistry, chemistry, environmental health, physics) and students majoring in the health sciences should enroll in CHM 157 or 167. CHM 162 and CHM 167 are recommended for students with a strong preparation in chemistry and physics.

CHM 157-158 or CHM 167-168 are prerequisite to all higher chemistry courses except CHM 201 and 300. Credit will be allowed for only one of each of the following series of courses: CHM 104, 143, 157, 162 or 167 and CHM 158, 163 or 168. Credit will not be allowed in major and minor programs in chemistry, biology or physics for CHM 201 and 300, except for CHM 300, which is allowed for the STEP majors in biology and chemistry.

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: MTH 062 with a grade of 2.0 or higher or placement in higher level math course.

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: 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 157*. *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: score of 20 or higher on ACT mathematics exam; or MTH 062.

CHM 147 General Chemistry Laboratory I (1)
Experimental investigation of chemical phenomena and measurements. This laboratory will not appear in the *Schedule of Classes*; students must obtain permission from the chemistry department adviser to register.
Prerequisite: CHM 143 and permission of chemistry adviser.

CHM 148 General Chemistry Laboratory II (1)
Training in the basic techniques of chemistry experimentation. This laboratory will not appear in the *Schedule of Classes*; students must obtain permission from the chemistry department adviser to register.
Prerequisite: CHM 157 and permission of chemistry adviser.

CHM 157 General Chemistry I (5)
Integrated lecture-laboratory. States of matter, atomic structure, bonding and molecular structure, chemical reactions. Recommended preparation is three years of high school mathematics and one year of high school chemistry. *CHM 157 satisfies the university general education requirement in the natural science and technology knowledge exploration area.*
Prerequisite: score of 20 or higher on ACT mathematics exam or MTH 062.

CHM 158 General Chemistry II (5)
Integrated lecture-laboratory. Chemical reactions, kinetics, equilibrium, acid-base chemistry, thermodynamics and electrochemistry.
Prerequisite: CHM 143 and 147, or CHM 157.

CHM 162 Honors General Chemistry for Engineers I (4)
Intensive introduction to chemistry in a small-class setting including selected research areas in chemistry. This course has common lectures with CHM 167 and is recommended for engineering majors with strong high school preparation in chemistry, physics and mathematics. *CHM 162 does not satisfy the university general education requirement in the natural science and technology knowledge exploration area*.
Prerequisite: one year of high school chemistry and physics and placement in MTH 154 or higher or math ACT score of 25 or higher.

CHM 163 Honors General Chemistry for Engineers II (4)
A more intensive treatment of the topics in CHM 158 including selected research areas in chemistry in a small-class setting. This course has common lectures with CHM 168.
Prerequisite: CHM 162 or 167.

CHM 167 Honors General Chemistry I (5)
Integrated lecture-laboratory. A more intensive introduction to the topics in CHM 157 including selected research areas in chemistry in a small-class setting. *CHM 167 satisfies the university general education requirement in the natural science and technology knowledge exploration area.*
Prerequisite: one year of high school chemistry and physics and placement in MTH 154 or higher or math ACT score of 25 or higher.

CHM 168 Honors General Chemistry II (5)
Integrated lecture-laboratory. A more intensive treatment of the topics in CHM 158 including selected research areas in chemistry in a small-class setting.
Prerequisite: CHM 157 or 167.

CHM 201 Introduction to Organic and Biological Chemistry (4)
Brief survey of organic 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: CHM 104.

CHM 220 Introduction to Computational Chemistry (2)
An 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: CHM 158 or 168; MTH 154 or MTH 122 recommended.

CHM 234 Organic Chemistry I (4)
Introduction to the structure, properties and reactivity of organic compounds.
Prerequisite: CHM 158 or 168.

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: CHM 234.

CHM 237 Organic Chemistry Laboratory (2)
Basic organic laboratory manipulations at the semi-micro level, synthesis, spectroscopy and chromatography.
Prerequisite: CHM 158 or 168 and CHM 234.

CHM 290 Introduction to Research (1, 2, 3 or 4)
Introduction to laboratory research for students with no previous research experience. May be repeated for credit. Graded S/U.
Prerequisite: permission of instructor.

CHM 300 Chemistry and Society (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: 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: CHM 158 or 168.

CHM 342 Physical Chemistry I (4)
Kinetics, applications of thermodynamics to chemical systems and equilibria.
Prerequisite: CHM 158 or 168, MTH 155 and PHY 152.

CHM 343 Physical Chemistry II (4)
Introduction to quantum mechanics, statistical mechanics and molecular spectroscopy. This course may be taken before CHM 342.
Prerequisite: CHM 158 or 168, MTH 155 and PHY 152.

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: CHM 220, 325, and 342 or 343.

CHM 362 Descriptive Inorganic Chemistry (3)
Structure, bonding and reactivity of inorganic compounds.
Prerequisite: CHM 235.

CHM 400 Seminar (0)
Discussions of recent advances and topics of current interest; reports. Graded S/U.
Prerequisite: 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: 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: 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: 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.
Prerequisite: 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: CHM 325.

CHM 432 Advanced Organic Chemistry (3)
Selected topics in synthetic, structural and physical-organic chemistry.
Prerequisite: CHM 235.

CHM 438 Inorganic/Organic Laboratory (2)
Synthesis, analysis and characterization of organic and inorganic compounds.
Prerequisite: 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: 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: 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: CHM/BCM 453.

CHM 457 Biochemistry Laboratory (3)
Techniques of extraction, separation, identification and quantification of biomolecules, including electrophoresis, chromatography and radioisotope techniques, with emphasis 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: CHM/BCM 453, which may be taken concurrently.

CHM 458 Biochemistry Projects (2)
Advanced project-oriented instruction in biochemical laboratory techniques.
Prerequisite: 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: 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: 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 applications will be discussed.
Prerequisite: 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: CHM 471 and 343 or permission of instructor.

CHM 477 Macromolecular Laboratory (2)
Introduction to the synthesis and physical characterization of synthetic polymers.
Prerequisite: CHM 237 and CHM 471; CHM 471 may be taken concurrently.

CHM 480 Selected Topics (1, 2, 3 or 4)
Advanced study in selected areas; normally involves preparation of a term paper or presentation of a seminar. May be repeated for credit.
Prerequisite: 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: 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: permission of instructor.

CHM 490 Research (1, 2, 3, 4, 6 or 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: 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: junior standing. 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: permission of instructor.

DEPARTMENT OF COMMUNICATION AND JOURNALISM

316 WILSON HALL (248) 370-4120
Fax: (248) 370-4208

Chairperson: *Jennifer M. Heisler*

Professor: *Sharon L. Howell*

Associate professors: *Rose M. Cooper, Scott Crabill, Thomas Discenna, Kellie Hay, Jennifer M. Heisler, David L. Lau (director, Communication program), Lily Mendoza, Valerie Palmer-Mehta*

Assistant professors: *Kathleen M. Battles, Jacob Cayanus, Rebekah Farrugia, Garry Gilbert (interim director, Journalism program), Adina Schneeweis, Ruth Seymour, Robert Sidelinger, Jeffrey Youngquist*

Special instructors: *Anne Becker, Elizabeth Talbert*

Full-time adjunct instructors: *Holly Gilbert, Christine Stover*

Visiting instructor: *Brian Hlavaty (Journalism supervisor, internships*)

Lecturers in communication: *Derek Bolen, Scott Burke, Lisa Campbell, Gene Fogel, Paul Fugate, Heather Haughey, Timothy Johnston, Carol Anne Ketelsen, Reginald McCloud, Janet McKenney, Michele Millard, Tushar Oza, Robert Parent, James Perkinson, Charles Rinehart, Jason Schmitt, Deandre Shapard, Michelle Southward, Aileen Sundstrom, Jon Wilkinson, Deborah Youngquist*

Lecturers in journalism: *Pat Caputo, Mark Champion, Susan Evans, Kim Madeleine, Judith Sawyer, Ritu Sehgal, Catherine Shafran, Karen Smith, John Stoll, Susan Tanner, Philip Van Hulle, Tracy Ward*

Chief advisers: *Jeffrey Youngquist (Communication), Holly Gilbert (Journalism)*

Academic adviser: *Renee Ligieski*

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, print and broadcast journalism, public relations, advertising, oral interpretation and mass media.

Communication and journalism training can enhance almost any career or life. There are many specialized careers that welcome students with communication knowledge and writing skills, e.g., journalism, media, law, teaching.

Departmental honors and scholarships

All communication and journalism majors with a university grade point average of 3.00 or above 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 Creative Endeavors Scholarship for students demonstrating talent and passion in performance, the Macomb University Center Communication Student Awards, 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, and the Richard D. French public relations tuition award.

Communication 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.

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

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 corequisite courses including:

1. COM 201, 303, 385, and 399 with a grade of 2.0 or better.
2. At least 8 credits from the Interpersonal Discourse group: COM 202, 207, 302, 304, 305, 306, 324, 325, 327, 360, 402, 405, 410.
3. At least 8 credits from the Public Discourse group: COM 220, 280, 285, 287, 301, 307, 308, 311, 314, 318, 330, 371, 373, 374, 375, 376, 377, 378, 379, 381, 382, 383, 387, 388, 389, 401, 407, 411, 412, 476, 485.
4. At least 8 elective credits in COM courses.
5. Corequisites as follows:
   a. Language (choose one from the following):
      1. American Sign Language at the university level (COM 114-115). COM 114-115 will also satisfy the elective requirement (see #4 above) for the major in communication.
      2. An introductory two-semester sequence in a modern foreign language (*will satisfy university general education and college distribution language requirements*).
      3. One semester of a modern foreign language at the 115 level or higher (*will satisfy university general education and college distribution language requirements*).
   b. An advanced writing course: JRN 200, WRT 382, WRT 364. (This 4-credit writing course is in addition to the 40 credits required for the major.)

Students using this catalog to meet communication requirements may also use any course subsequently approved as satisfying requirements in a particular group and published in a later catalog.

Communications majors interested in careers in public relations or advertising are encouraged to focus course work in the appropriate area. For a focus in public relations, students should take 12 credits from: JRN 350, 351 and either 352 or 353. For a focus in advertising students should take 12 credits from: JRN 340, 341 and 342. These courses do not count toward the major, but could count toward a minor in advertising or public relations. (See the Journalism Program section of this catalog.)

Requirements for the modified major in communication with a linguistics concentration, B.A. program

To earn a communication major with a concentration in linguistics, student must complete 24 credits in communication and 20 credits in linguistics including:

1. COM 201 or 202;
2. COM 303;
3. at least 4 credits from the Interpersonal Discourse group;
4. at least 4 credits from the Public Discourse group;
5. 20 credits in LIN or ALS courses, including 201, 303, 304 and either 403 or 404;
6. LIN 305.

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. COM 201 or 202,
2. COM 303,
3. at least 4 credits from the Interpersonal Discourse group,
4. at least 4 credits from the Public Discourse group,
5. At least 12 credits in communication courses must be at the 300-400 level.

No more than 4 credits in independent study, internship or apprentice college teaching may be counted toward the minor.

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*.

COM 101 Collegiate Communication (1)
A 12-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: COM 114.

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 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: 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: COM 214.

COM 220 Public Speaking on Public Issues (4)
The development, presentation and defense of speeches addressing public issues, including advanced concepts of audience analysis and persuasion, and the use of rhetorical strategies and aids.
Prerequisite: COM 201.

COM 280 Broadcast Announcing (4)
Techniques of speaking before a microphone, editing, reading copy and news broadcasting. Experience includes recording and critique of various styles of delivery.

COM 285 Introduction to Broadcasting (4)
A survey of public and commercial radio and television, including their public service, educational and religious functions; and the history, economics, influence and social control of broadcasting.

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.
Prerequisite: COM 201.

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.
Prerequisite: COM 202.

COM 303 Communication Theory (4)
Central concepts in communication and the relation of communication to system theory, the acquisition of knowledge, the nature of language and the maintenance of ethical values.
Prerequisite: sophomore standing.

COM 304 Communication in Organizations (4)
Communication theory and practice within organizational systems.

COM 305 Interpersonal Communication (4)
Explores how communication negotiates our understanding of self and others. Focus is on current research, theory and issues in relational communication.
Prerequisite: one COM course.

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)
Examination of the theory and practice of oral interpretation of written text. Particular attention is given to how readers bring written works to meaning through communicative performance.
Prerequisite: COM 201 or permission of the instructor.

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: COM 201.

COM 311 Rhetoric and Public Address (4)
Introduction to the history and theory of rhetorical criticism and public address, contrasting Aristotle's rhetoric with contemporary theories.
Prerequisite: COM 201.

COM 314 Discourse and Content Analysis (4)
Analysis and comparison of spoken and written texts, with the aim of bringing out their basic structures and differences by methods ranging from close reading to categorization and statistics.

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.
Prerequisite: COM 201.

COM 324 Professional Communication (4)
Explores the theories, principles, and practices associated with professional communication. Students will focus on issues common in professional contexts including oral presentations, interviews, and interpersonal skills in the workplace including working collaboratively with others and increasing responsiveness to organizational diversity.
Prerequisite: COM 201 or 202.

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 330 Digital Culture: Identity and Community (4)
Identical with WRT 330. *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 U.S. diversity.*
Prerequisite: completion of the university writing foundation requirement.

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 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 374 Digital Video Editing (4)
Practicum in digital video editing. Students will learn how to edit using state-of-the-art editing software. Experiences include capturing and importing elements, creating and working with timelines, and outputting completed projects in multiple formats.

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 376 Introduction to Television Production (4)
The essential elements of television as a medium, its capabilities and limitations. Practical experience in studio and/or field work.

COM 377 Live Video Production (4)
Practicum in live television production. Students will participate in every aspect of producing a live television program. Experiences include research, writing, equipment operation and directing.
Prerequisite: COM 376.

COM 378 Television News Production (4)
Fundamentals of broadcasting television news including operation of studio equipment, non-linear editing, and newscast direction in the production of an on-air program. This course will be taught concurrently with JRN 338.
Prerequisite: COM 376.

COM 379 Video Post Production (4)
Advanced field and post production equipment techniques including non-linear editing. Principles of video field production including organizational, business and creative processes.
Prerequisite: COM 376.

COM 380 Special Topics in Communication (2 or 4)
Various topics in communication theory and practice chosen by department faculty. May be repeated under different subtitles.
Prerequisite: junior or senior standing and at least 20 credits of COM courses.

COM 381 Broadcast Operations (4)
An analysis of non-commercial radio with an emphasis on college broadcasting; includes experience in writing, producing and performing on-air programming for the university's station.
Prerequisite: COM 280 (may be taken concurrently).

COM 382 Advanced Radio Production (4)
Examines the skills and requirements of studio and remote production, advanced audio editing and programming.
Prerequisite: COM 381.

COM 383 Television Sports Production (4)
Practicum in television sports production. Students will learn all aspects of producing sports programming from pre-production through the live-to-tape shoot. Experiences include producing, camera work, directing and all other crew positions necessary for different sports productions.
Prerequisite: COM 376.

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 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 U.S. diversity.*
Prerequisite: junior standing.

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.

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: senior standing, communication major, and at least 20 credits of COM courses and completion of the university writing foundation requirement.

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 role of leadership. Analysis of case studies and consideration of contemporary efforts at social change.
Prerequisite: COM 301.

COM 402 Small Groups (4)
Identical with SOC 402.

COM 405 Advanced Interpersonal 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: 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: COM 307.

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.
Prerequisite: COM 202 or permission of instructor.

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: COM 301 or 303 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 476 Advanced Video Production (4)
Advanced practice in video production from conception to post-production. Skills involved preproduction research, remote and studio shooting techniques, and script writing for program formats including commercials and documentary television.
Prerequisite: COM 376.

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: 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: COM 385. COM 303 is highly recommended.

COM 490 Independent Study (1-4)
Special research projects in speech communication. May be repeated for a maximum of 8 credits.
Prerequisite: junior or senior standing, 12 previous credits in the major, permission of instructor and completion of course application form.

COM 491 Internship (4)
Experience working with professionals in various performing arts and mass communication settings. May be repeated once in a different setting for up to 8 credits. Students can only take a maximum of eight internship credits within the department.
Prerequisite: junior or senior standing and permission of instructor. (Permission will normally require completion of at least one writing course beyond WRT 160.)

COM 497 Apprentice College Teaching (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.
Prerequisite: junior standing and permission of instructor.

Journalism 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 produce a senior portfolio.

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

To earn the Bachelor of Arts degree with a major in journalism, students must complete a minimum of 40 credits including:

1. JRN 200 Newswriting
   JRN 300 Media Editing
   JRN 402 Ethical Issues in the Media
   JRN 403 Law of the Press
   JRN 404 Journalism Internship

2. Senior portfolio. Upon completion of 92 credits, majors must submit a Senior Portfolio to the program director. The portfolio must include a resume and samples of published work. Deadlines for submitting the portfolios are: March 1 for students completing degree requirements in April, May 1 for students completing degree requirements in June or August, and November 1 for students completing degree requirements in December.

Requirements for the liberal arts minors in journalism, advertising or public relations

A minor in journalism requires a minimum of 24 credits in JRN courses, including JRN 200, 300 and 404. A minor in advertising requires a minimum of 24 credits in JRN courses, including JRN 200, 340, 341, 342 and 404. The internship (JRN 404) must be taken in advertising for that minor. (JRN 440 may be substituted for JRN 342.)

A minor in public relations requires a minimum of 24 credits in JRN courses, including JRN 200, 350, 351, 352 and an internship (JRN 404) in public relations. Additional course work to comprise the minimum of 24 credits must be selected from the following: JRN 353, 354, 356, and 440.

Journalism majors may not minor in advertising or public relations.

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*.

JRN 200 Newswriting (4)
Training in the practical aspects of news gathering, interviewing and basic newswriting techniques; a discussion of the various journalism media. *Satisfies the university general education requirement for a writing intensive course in general education or the major, not both.*
Prerequisite: completion of the university writing foundation requirement.

JRN 280 Broadcast Announcing (4)
Identical with COM 280.

JRN 285 Introduction to Broadcasting (4)
Identical with COM 285.

JRN 300 Media Editing (4)
Principles and practices of news editing for print, on-line and broadcast news writing, including copy reading, headline writing, makeup, typography and preparing copy on computers for publications, including broadcast news headlines and information bars.
Prerequisite: JRN 200.

JRN 311 Public Affairs Reporting (4)
Practical training in the news coverage of local governments including police protection, fire control and the courts. Discussion of federal and state coverage of stories of public interest.
Prerequisite: JRN 200.

JRN 312 Feature Writing (4)
Practice in writing newspaper and magazine nonfiction features, such as human interest stories and profiles. The course will enable students to develop further their reportorial skills for careers in print journalism. A study of the purposes, styles, types and techniques of the feature story.
Prerequisite: JRN 200.

JRN 313 Magazine Writing and Freelancing (2 or 4)
Writing magazine-length nonfiction articles, with some discussion of the differences between newspaper feature stories and magazine pieces, 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: JRN 312.

JRN 314 Sports Writing (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: JRN 200.

JRN 320 Editorial Writing (2)
Preparing and writing newspaper opinion and commentary usually found on the editorial page; forms and techniques of editorials and the editorial page.
Prerequisite: JRN 200.

JRN 331 Digital News Photography (4)
Digital photography in news, media, public relations and advertising. Digital camera operation, producing and processing of photographs using computers for publication in print media.

JRN 332 Radio Television News (4)
Fundamentals and techniques of preparing news for broadcasting, especially the different demands of electronic journalism from those of the print media.
Prerequisite: JRN 200.

JRN 338 Television News (4)
Practical application of skills learned in basic reporting classes. Students write and present news copy for a student produced campus cable channel newscast. May be repeated once for additional credit.
Prerequisite: JRN 200 with a 3.0. JRN 332 is recommended.

JRN 340 Introduction to Advertising (4)
Advertising in print and electronic media from the standpoint of marketing, its social and legal environment, and strategy decisions in the profession.
Prerequisite: JRN 200.

JRN 341 The Advertising Medium (4)
Further study of the advertising industry, including trends, design, marketing strategy and the technical problems of planning a product campaign.
Prerequisite: JRN 340.

JRN 342 Case Studies in Advertising (4)
The study of actual case histories of various companies and projects as well as the analysis of problems within a market. An assigned case study is required.
Prerequisite: JRN 340 and 341.

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: JRN 340.

JRN 350 Introduction to Public Relations (4)
An overview of the practices of public relations and its potential impact on various audiences. Study of basic public relations tactics, including media relations, community relations, internal communications, public affairs and investor relations.
Prerequisite: JRN 200.

JRN 351 External Public Relations (4)
The study of public relations related to an organization's external audiences such as the news media and local, state and national government officials. Students will study public relations strategies used to interact with these groups, including media relations, legislative lobbying and special events.
Prerequisite: JRN 350.

JRN 352 Internal Public Relations (4)
The 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 newsletters/publications general memos/announcements, videotapes and face-to-face employee communications.
Prerequisite: JRN 350.

JRN 353 Public Relations and the News (4)
A study of the relationship between the public relations practitioner and members of the news media. Students will focus on understanding the differing needs of the news media and on using various public relations vehicles to reach targeted audiences via the media. Course includes writing weekly news releases.
Prerequisite: JRN 350.

JRN 354 Case Studies in Public Relations (4)
The study of actual public relations efforts of various companies and organizations. Students will 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: JRN 351 or 352.

JRN 356 Video for Public Relations (2)
Understanding the elements involved in producing corporate videos, including an introduction to the technology of video, the applications of video to public relations needs and development of the video "treatment" for client presentation.
Prerequisite: JRN 350.

JRN 381 Broadcast Operations (4)
Identical with COM 381.

JRN 402 Ethical Issues in the Media (4)
A study of professional ethics with an emphasis on print journalism, though helpful and applicable to electronic journalism as well. Discussion format where students analyze a series of factual problems that arise in daily media operations.

JRN 403 Law of the Press (4)
State and federal laws dealing with libel, contempt of court, right of privacy, copyright and other legal matters affecting newspapers, radio, television and other media.
Prerequisite: JRN 300 or pre-law student.

JRN 404 Journalism Internship (4)
A full- or part-time internship on a weekly or daily newspaper, radio or television station, or with a public relations or advertising office for one semester. Open only to students in the journalism program, usually in the senior year. May be repeated once in a different medium. Students can only take a maximum of eight internship credits within the department. *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: JRN 200 and three other JRN courses.

JRN 405 Supervising High School Publication (4)
Principles and practices of reporting, news writing, editing, graphics and design, photography, and relevant legal and ethical issues for advisers of high school newspapers, yearbooks and magazines.
Prerequisite: JRN 200 and 300.

JRN 410 Computer Assisted Reporting (4)
Identifying, analyzing and interpreting data for reporting complex, public interest stories utilizing computer database management systems such as Excel and Access.
Prerequisite: JRN 200.

JRN 411 Reporting with the Internet (4)
A course utilizing the Internet and World Wide Web as reporting tools. Students will learn about search engines, URLs and other information useful to developing stories for media.
Prerequisite: JRN 200.

JRN 440 Media Design (4)
Basic skills and trends in typography, layout and design in traditional and new media with an emphasis on newspapers. Hands-on experience with design software. Class culminates in creation of senior portfolio.
Prerequisite: junior standing and JRN 300.

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: JRN 440 and permission of instructor.

JRN 480 Special Topics in Journalism (4)
Various specialties offered to students. Subjects change from semester to semester, with some opportunity for independent study. May be repeated under different subtitles.
Prerequisite: JRN 200.

JRN 490 Independent Study (2 or 4)
Individual research projects in journalism. May be repeated for a maximum of 8 credits.
Prerequisite: junior/senior standing and permission of program director.

DEPARTMENT OF ECONOMICS

440 ELLIOTT HALL (248) 370-3283
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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.

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; admission to major standing in economics (see below); and

required economics courses and economics electives, as listed below. Students who have taken ECN 150 before ECN 200 or 201, and who subsequently become economics majors, should talk to the department chairperson. The economics major must complete each of the cognate and required courses with a grade of 2.0 or better:

Cognate courses		**Credits**
MTH 121	Linear Programming, Elementary Functions	4
MTH 122	Calculus for the Social Sciences (or MTH 154)	4
MIS 100	Business Problem Solving with Information Technology	3
QMM 250	Statistical Methods (or QMM 240 & 241)	6
Required courses		
ECN 200	Principles of Macroeconomics	
and ECN 201	Principles of Microeconomics	
or ECN 210	Principles of Economics (combines ECN 200 and 201)	6-8
ECN 302	Intermediate Macroeconomics	3
ECN 303	Managerial Economics	3
ECN 304	Consumer 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.

Students may substitute one of the following courses for an economics elective: ACC 200, ORG 330, ORG 331, MIS 300, MKT 302, POM 343, or a social science course (PS 353, SOC 301), or another course approved by the Department of Economics chairperson.

Note: students must meet any course prerequisites before taking these courses.

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: MTH 121-122, ECN 210 (or 200 and 201), MIS 100 and QMM 250 (or QMM 240 and 241).
3. Completion of 56 credits or more with a cumulative overall grade point average of 2.00 or better.
4. Approval of an "Application for Major Standing in Economics."

Admission to major standing in economics is required before a student may graduate with a Bachelor of Arts or Bachelor of Science degree with a major in economics. Although ECN 302, 303 and 304 are not required for admission to major standing in economics, students must earn a grade of 2.0 or better in ECN 302, 303 and 304 in order to graduate.

Bachelor of Science with a Major in Actuarial Science

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.

Requirements for the liberal arts major in actuarial science, B.S. program

To earn the Bachelor of Science degree with a major in actuarial science, students must complete a minimum of 124 credits. All courses required for the major, including cognate courses, must be completed with a minimum grade of 2.0.

University General Education Requirements (not counting courses required for the major)		28 credits
Required courses		
MTH 154	Calculus I	4
MTH 155	Calculus II	4
MTH 254	Multivariable Calculus	4
MTH 275	Linear Algebra	4
STA 226	Applied Probability and Statistics	4
STA 427	Introduction to Mathematical Statistics I	4
ECN 200	Principles of Macroeconomics	
and ECN 201	Principles of Microeconomics	
or ECN 210	Principles of Economics	6-8
ECN 302	Intermediate Macroeconomics	3
ECN 303	Managerial Economics (Theory of the Firm)	3
QMM 241	Statistical Methods for Business II	3
FIN 322	Managerial Finance I	4
FIN 416	Investment Analysis	3
FIN 422	Managerial Finance II	3
ECN 450/ APM 450	Risk Management	3
ECN 405	Econometrics	
or STA 402	Applied Linear Models I	3-4
one of the following electives		4
APM 433	Numerical Methods	
APM 434	Applied Numerical Methods: Matrix Methods	
APM 255	Introduction to Differential Equations with Matrix Algebra	
STA 425	Elements of Stochastic Processes	
STA 428	Introduction to Mathematical Statistics II	
Cognates		
ACC 200	Introductory Financial Accounting	4
EGR 141	Computer Problem Solving in Engineering and Computer Science	4
WRT 382	Business Writing	4
General electives or not waived prerequisites		
		124 credits

Departmental honors

Economics majors are eligible for departmental honors if their grade point average in all economics 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 a liberal arts minor in economics

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.

The minor in economics consists of a minimum of 18 semester credits in economics courses. Students must take ECN 210 or both ECN 200 and 201 and any prerequisites for these courses. Students must earn at least 12 additional credits in economics (ECN) courses in order to fulfill the credit requirement. This minor is open to all students except economics majors.

Students taking ECN 150 before ECN 200 or ECN 201, and who subsequently become economic minors, should talk to the Department of Economics chairperson.

Requirements for the secondary teaching minor in economics

A minimum of 20 credits in economics is required for the secondary teaching minor in economics distributed as follows:

1. ECN 200 and 201.
2. Four courses (12 credits) with at least one course from each of the following three groupings:
   a. ECN 309 (3), ECN 321 (3).
   b. ECN 326 (3), ECN 373 (3), ECN 374 (3).
   c. ECN 310 (3), ECN 315 (3), ECN 338 (3), ECN 367 (3), ECN 378 (3) ECN 385 (3).

   In addition SED 427, Methods of Teaching Secondary Students, is required.

Note: The department recommends that students choose ECN 321 or ECN 373. At least 6 credit hours must be taken at Oakland University.

Generally, a cumulative grade point average of 3.00 is required in courses for 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 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 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*. Following is a general description of the economics courses offered.

ECN 150: An introductory economics course for students not majoring in economics or business. After ECN 150, students may take certain economics courses numbered less than 350. *ECN 150 satisfies the university general education requirement in the social science knowledge exploration area.*

ECN 200 and 201: Introductory courses for students who intend to major in economics or business or students who desire a more complete understanding of economics. The accelerated course, ECN 210, combines the material of ECN 200 and 201 into a single semester, 6-credit course. Highly motivated and well-prepared students should consider taking ECN 210 instead of ECN 200 and 201. *ECN 200 and ECN 210 satisfy the university general education requirement in the social science knowledge exploration area.*

ECN 302-304: These intermediate economic analysis courses are designed for students who intend to major in economics or an area of business. Students may be admitted to these courses if they are pursuing a minor in economics and have met the prerequisites.

ECN 309-338: Economics electives numbered 309 through 338 are applications of economics that are open to students who have taken ECN 150, 200 or 210.

ECN 367-385: Economics electives numbered 367 through 385 are intermediate-level courses in the applications of economics intended for majors or minors in economics and business. These courses are open to students who have taken ECN 201 or 210.

ECN 405-490: Economics courses numbered 405 or higher are advanced courses. Enrollment in these courses is generally limited to students who have taken ECN 303.

Detailed descriptions of the following economics courses can be found in the School of Business Administration section of this catalog:

ECN 150 Economics in Today's World (4)
ECN 200 Principles of Macroeconomics (4)
ECN 201 Principles of Microeconomics (4)
ECN 210 Principles of Economics (6)
ECN 302 Intermediate Macroeconomics (3)
ECN 303 Managerial Economics (3)
ECN 304 Consumer Economics (3)
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 Economics of International Finance (3)
ECN 378 Economic Analysis of Law (3)
ECN 380 Topics in Economics (3)
ECN 385 Economics of Industries (3)
ECN 405 Econometrics (3)
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)
ECN 480 Special Topics in Economics (3)
ECN 490 Independent Study (1-3)

DEPARTMENT OF ENGLISH

544 O'Dowd Hall (248) 370-2250
Fax: (248) 370-4429

Chairperson: *Susan E. Hawkins*

Distinguished professors emeriti: *Jane D. Eberwein, Robert T. Eberwein*

Professors emeriti: *Thomas Fitzsimmons, Daniel Fullmer, Nigel Hampton, James F. Hoyle, David W. Mascitelli, Donald E. Morse, Brian F. Murphy, Joan G. Rosen, William Schwab*

Professors: *Natalie Bell Cole, Brian A. Connery, Edward Haworth Hoeppner*

Associate professors: *Robert F. Anderson, Gladys Cardiff, Annette M. Gilson, Kevin T. Grimm, Susan E. Hawkins, Niels Herold, Jeffrey Insko, Nancy Joseph, Kathleen A. Pfeiffer*

Assistant professors*: Jeffrey Chapman, Kyle Edwards, Andrea Knutson, Kevin Laam, L. Bailey McDaniel, Hye Seung Chung*

Special instructors: *Linda McCloskey, Jimmy T. McClure, Rachel Smydra*

Lecturers: *Susan Beckwith, Heidi Kenaga, Charlene Meyers, Pamela T. Mitzelfeld, Dawn Newton, Doris Runey, Amy Spearman*

Chief adviser: *Robert F. Anderson*

STEP adviser: *Nancy Joseph*

Cinema Studies Director: *Kyle Edwards*

Cinema Studies adviser: *Kyle Edwards*

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. 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 B.A. in Cinema Studies, see page 164 in this section of the catalog.)

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. The department provides frequent opportunities for training in writing: creative writing courses, courses in advanced writing, and written assignments for literature courses.

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. Evening students can complete the English major entirely through night courses.

For a description of each semester's course offerings, students should consult the "Semester Course Descriptions," available in pre-registration periods in the department office as well as 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 below 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 Cinema Studies, as well as liberal arts minors in English in secondary teaching, 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 (exclusive of composition courses used to satisfy the writing proficiency requirement), distributed as follows:

1. 4 credits of ENG 211: Introduction to Literary Studies.
2. 8 credits in British literary history selected from ENG 354, 355, 357, 358, 370, 371; or 4 credits from this group and 4 credits from ENG 311, 315, 316, 369.
3. 4 credits in American literature selected from ENG 317, 318, 319, 320.
4. 4 credits in a capstone seminar chosen from ENG 400, 401, 420, 451, 452, 453, 465, 490.
5. At least 20 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.

Only one course at the 100 level will be accepted for credit toward the major. English 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 or minor including the modern foreign language requirement.

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 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. 8 credits in British literary history selected from ENG 354, 355, 357, 358, 370, 371 or 4 credits from this group and 4 credits from ENG 311, 315, 316, 369.
2. 4 credits in American literature selected from ENG 317, 318, 319, 320.
3. 4 credits in a 400-level capstone seminar (excluding 410, 411, 412, 491 and 499).
4. 20 credits in LIN or ALS courses, including: LIN 201, 303, 304, and either 403 or 404.
5. ENG 376.
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). English 211 is a prerequisite for the required British and American literary history courses and the capstone seminar. At least two courses must be taken at the 300 or 400 level. Only one 100 level course will be accepted as part of the minor. Only 4 credits of 499 may apply toward the minor. Normally, only 4 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.

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 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. 4 credits in American ethnic literature selected from ENG 112, 341 or 342;
2. ENG 215 Fundamentals of Grammar or ENG 376 History of the English Language;
3. ENG 224 American Literature;
4. ENG 241 British Literature;
5. ENG 211 Introduction to Literary Studies;
6. 4 credits in British literary history selected from ENG 354, 355, 357, 358, 370, 371; or 4 credits from ENG 311, 315, 316, 369;
7. 4 credits in American literature selected from ENG 317, 318, 319, 320;
8. ENG 398 Approaches to Teaching Literature and Composition;
9. ENG 380 Advanced Writing;
10. 4 credits in a 400-level capstone seminar (excluding ENG 410, 411, 412, 491 and 499).
11. At least 20 credits must be taken at Oakland.

The following courses are also required:

1. ALS 176 The Humanity of Language;
2. 4 credits in world literature selected from ENG 100, 111, 312 or LIT 100, 181 or 182;
3. an introductory two-semester sequence in a foreign language, or one semester of a foreign language at the 115 level or higher.

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, SED 427, FE 406, IST 397 and RDG 338. 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. 4 credits in American ethnic literature selected from ENG 112, 341 or 342;
2. ENG 215 Fundamentals of Grammar or ENG 376 History of the English Language;
3. ENG 224 American Literature;
4. ENG 241 British Literature;
5. ENG 380 Advanced Writing;
6. ENG 398 Approaches to Teaching Literature and Composition (Instructor permission required; all other courses for the English teaching minor must be completed prior to ENG 398).

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.

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*.

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.

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 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.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

ENG 215 Fundamentals of Grammar (4)
A thorough introduction to basic grammatical forms and structures, drawing upon a variety of approaches and models.
Prerequisite: WRT 160 or equivalent.

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.

ENG 301 Poetry (4)
The major forms of poetic expression studied from generic and historical points of view.

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.

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: 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.

ENG 305 The Bible as Literature (4)
Emphasis on the artistic, imaginative and historical aspects of the Bible. Identical with REL 311. *Satisfies the university general education requirement in the literature knowledge exploration area.*
Prerequisite: junior standing.

ENG 306 Drama (4)
The 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: junior standing.

ENG 307 Modern Drama (4)
Studies in English, American and Continental drama since Ibsen.

ENG 308 Playwriting (4)
Creative writing for the theatre, emphasizing fundamentals of scene, character, and dialogue development. Identical with THA 340.
Prerequisite: 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 university general education requirement in the literature knowledge exploration area.*

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: 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: 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: 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: ENG 211.

ENG 316 Milton (4)
His major poetry, with emphasis on Paradise Lost and some attention to his prose.
Prerequisite: 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: 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: 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: ENG 211.

ENG 320 American Literature 1920-1950 (4)
Studies in American literature of the modern period.
Prerequisite: 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.

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.

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.

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*.

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.*

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: WRT 160 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.

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: 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: 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: ENG 211.

ENG 358 British and Postcolonial Literatures since 1900 (4)
British and Anglophonic literature since 1900. Authors may include Joyce, Woolf, Eliot, Rhys, Beckett, Rao and Achebe.
Prerequisite: 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: 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: 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: 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.

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: WRT 160 with a grade of 2.0 or higher.

ENG 383 Workshop in Fiction (4)
Creative writing workshop, with emphasis on narrative.

ENG 384 Workshop in Poetry (4)
Creative writing workshop, with emphasis on both traditional and experimental poetic forms.

ENG 385 Interdisciplinary Issues (4)
The relationship of literature and literary study to one or more complementary academic disciplines, such as art, history, religion and the social sciences.

ENG 387 Screenwriting (4)
Creative writing for motion pictures, emphasizing fundamentals of scene construction, characterization, and dialogue creation.
Prerequisite: CIN 150 or ENG 250; WRT 160 with a grade of 2.0 or higher.

ENG 390 Literary Theory, Ancient to Early 20th Century (4)
The development of literary theory, presented as a survey. Applications of theory in critical practice will be considered.

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.

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: a course in film.

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 admitted to the secondary education program (STEP). To be taken in the winter semester prior to internship.
Prerequisite: 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: 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: 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.
Prerequisite: ENG 383 and permission of instructor.

ENG 411 Advanced Workshop in Poetry (4)
Creative writing workshop in poetry.
Prerequisite: ENG 384 and permission of instructor.

ENG 412 Advanced Playwriting (4)
Identical with THA 440. May be repeated once for credit.
Prerequisite: ENG 308 or THA 340. English and theatre majors (or minors). 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: ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 451 Major American Writers (4)
Studies in one or two American writers to be selected by the instructor. May be repeated for credit with different writers. 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: ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 452 Major British Writers (4)
Studies in one or two British writers to be selected by the instructor. May be repeated for credit with different writers. 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: 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: 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: ENG 211 and the three required 300-level British and American literary history courses; or permission of the instructor.

ENG 490 Studies in Literary Theory and Research (4)
Designed to acquaint students with the application of tools, techniques, and materials of literary scholarship. Especially recommended for students who intend to pursue graduate studies in English. *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: 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: 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: four courses in English and permission of instructor.

Cinema Studies

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. Four *introductory-level* credits selected from CIN 150 or ENG 250.
2. CIN 252.
3. CIN 315.
4. Twelve credits in *film history* selected from CIN 300, CIN 301, CIN 302, or CIN 303.
5. Four credits in *film production* selected from CIN 165 or ENG 387.

6. Sixteen credits in *critical studies in film* selected from AH 367, AN 307, CIN 311, CIN 320, CIN 321, CIN 322, CIN 350, CIN 415, CIN 450, CIN 485, CIN 499, COM 375, COM 387, ENG 260, ENG 309, ENG 350, ENG 387, LIT 251, MUS 334, or PS 309. (Note: no more than two non-CIN designated courses in this category may be counted toward the Cinema Studies major.)
7. Four *capstone* credits selected from CIN 415, CIN 450, or CIN 499.

Requirements for the liberal arts minor in Cinema Studies

A minimum of 24 credits in Cinema Studies courses, 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. Four introductory-level credits selected from CIN 150 or ENG 250.
2. CIN 252.
3. CIN 315.
4. Eight credits in *film history* selected from CIN 300, CIN 301, CIN 302, or CIN 303.
5. Four credits in critical studies in film selected from AH 367, AN 307, CIN 311, CIN 320, CIN 321, CIN 322, CIN 350, CIN 415, CIN 450, CIN 499, COM 375, COM 387, ENG 260, ENG 309, ENG 350, ENG 387, LIT 251, MUS 334, or PS 309.

Department honors in Cinema Studies

Departmental honors may be awarded to graduating Cinema Studies majors for outstanding achievement.

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*.

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 Digital Film Production (4)
Introduction to digital film production through group projects.
Prerequisite: CIN 150 or ENG 250; permission of instructor; cinema studies major 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: CIN 150 or ENG 250; WRT 160 with a grade of 2.0 or higher.

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: 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: 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: CIN 150 or ENG 250.

CIN 303 History of Film: Into the 21st Century (4)
Study of developments in film since the late 1980's, 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: CIN 150 or ENG 250.

CIN 311 Studies in Documentary Film (4)
Examination of the history of documentary filmmaking. Additional focus on aesthetic and industrial practices. Film screening lab may be required.
Prerequisite: CIN 150 or ENG 250.

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: 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: 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: 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: 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: CIN 150 or ENG 250.

CIN 415 Advanced Film Theory (4)
Close examination of one or more theoretical approaches used to analyze film texts. May include psychoanalytic criticism, genre theory, reception studies, cultural studies, and others. Topics to be selected by instructor. May be repeated under different subtitle for credit. Film screening lab may be required.
Prerequisite: CIN 252; ENG 392 or CIN 315; 20 credits in Cinema Studies curriculum; 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: CIN 315 or permission of instructor.

CIN 485 Field Internship in Cinema Studies (0 to 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: 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 (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: one course in film.

ENVIRONMENTAL SCIENCE PROGRAM

Director: *Linda Schweitzer (Chemistry)*

Faculty: *Terry Begnoche, Edith Chopin, Jim Leidel, D. David Newlin, William Robert, Linda Schweitzer, Cole Shoemaker, Douglas Thiel, 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, pharmacology, industrial hygiene 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 of a minimum of 31 credits, to be completed with a 2.00 grade point average before major standing is awarded, including:
   a. BIO 111, 113, 116 Biology and Biology Laboratory;
   b. CHM 157, 158 General Chemistry I and II, or
   c. 4 credits of physics (PHY 101 or above);
   d. 8 credits of mathematics (above MTH 121) or statistics (STA 225 recommended).

2. Core requirements of a minimum of 15 credits including
   a. BIO 301 Ecology;
   b. ENV 308 Introduction to Environmental Studies;
   c. ENV 461 Environmental Law and Policies;
   d. ENV 470 Environmental Science Internship (*Satisfies the requirements for the capstone experience and writing intensive in the major*).

3. Major standing must be achieved three semesters before graduation, and before a student reaches senior status, otherwise graduation may be delayed.

4. 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 course work includes:
BIO 207 or 321, 307 or 319, 325;
CHM 234;
ENV 355, 368 or 386, 452; ENV 446 or OSH 446.

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 course work includes:
   BIO 303 or 373 or ENV 375;
   ENV 309, 312, 370, 373, 480.

2. Recommended electives include:
   BIO 311, 471;
   CHM 234, 410, or 413;
   ENV 389, 452, 485, 486, ENV/AN 322, 410;
   ENV/PS 354.
   Elective courses for the specialization must be approved by the program director.

Requirements for the liberal arts minor in environmental science

The following 22 credits are required for this minor: ENV 308, 452, and 461 plus 12 credits of approved electives. An approved Concentration/Minor Authorization Form must be filed three semesters prior to graduation.

Course Offerings

The program 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.

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: 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: 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: sophomore standing; mathematics proficiency at the MTH 061 level.

ENV 322 The Food Quest (4)
Identical with AN 322.

ENV 350 Selected Topics (1, 2, 3 or 4)
Technical studies in special areas; topics vary with semester. May be repeated for credit.
Prerequisite: junior standing and permission of instructor.

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 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.*

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: 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: 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: 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: CHM 158 (or 168) 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: 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: 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: 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: ENV 386 recommended.

ENV 389 African Environmental History (4)
Identical with HST 389.
Prerequisite: WRT 160.

ENV 390 Directed Studies (1, 2, 3, 4 or 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: 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 OSH 446. *Satisfies the university general education requirement for a writing intensive course in the major. Prerequisite for writing intensive: completion for the university writing foundation requirement.*
Prerequisite: an organic chemistry course.

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: sophomore standing, CHM 158 (or 168).

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: sophomore standing.

ENV 470 Environmental Science Internship (3)
Supervised practical experiences in an environmental health setting. Weekly journal and a written paper are 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: 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: ENV 386 recommended.

ENV 480 Biogeochemical Cycling (3)
Nutrient cycle, environmental contamination, remediation, sustainable agriculture, land use and management.
Prerequisite: 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: 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: BIO 111, 113; CHM 234.

DEPARTMENT OF HISTORY

416 Varner Hall (248) 370-3510
Fax: (248) 370-3528

Chairperson: *Karen A.J. Miller*

Professors emeriti: *V. John Barnard, Leonardas V. Gerulaitis, James D. Graham, Mary Karasch, Roy A. Kotynek, Carl R. Osthaus, S. Bernard Thomas, Richard P. Tucker*

Professor: *Linda Benson*

Associate professors: *Getnet Bekele, Sara E. Chapman, Daniel J. Clark, De Witt S. Dykes, Jr., Todd A. Estes, Derek K. Hastings, Weldon C. (Don) Matthews, Karen A. J. Miller, Seán Farrell Moran*

Assistant professors: *Luke Harlow, Craig Martin, Sean McEnroe, George Milne*

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:

1. At least 8 credits numbered under 300,
2. At least 28 credits numbered 300 or above including HST 300 and
   one course in American history,
   one course in European history,
   one course in African, Asian or Latin American history.
3. One senior capstone course (HST 494, 495, 496 or 497) is required.
4. No more than 12 credits in independent study (HST 391 and 491) may be counted toward the major.
5. At least 20 credits in history courses must be taken at Oakland.

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 the STEP program 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, 102, 114, 115;
2. At least 28 credits must be numbered 300 or above and must include
   HST 300 (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 or Latin American history.
3. One senior capstone course (HST 494, 495, 496 or 497) (must be completed with a minimum grade of 3.0).
4. No more than 12 credits in independent study (HST 391 and 491) may be counted toward the major.
5. At least 20 credits in history courses must be taken at Oakland.

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, RDG 338, IST 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 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 minor should consult early and often with the history department's undergraduate adviser.

In addition to completing the requirements for a history major, students must complete the following:

1. HST 101, 102, 114, and 115
2. HST 300 (must be completed with a minimum grade of 3.0)
3. HST 494, 495, 496 or 497 (must be completed with a minimum grade of 3.0)
4. Two approved HST courses in one of the following areas: Asia, Latin America or Middle East and Africa (see adviser for options and availability)
5. Two of the following IS courses: IS 210, 220, 230, 240, 250, 260 or 270
6. PS 100, PS 114, and PS 131
7. PS 303
8. PS 305 or 307
9. PS 301, 302, 322, or 342

10. PS 353
11. HST 321 or PS 315
12. ECN 200 and 201
13. GEO 200 and 350
14. SED 428 and 455

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, 372 O'Dowd 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.

Requirements for the liberal arts minor in history

The liberal arts minor in history requires a minimum of 20 credits in history courses, including 8 credits in courses numbered 300 or above. At least 12 credits in history courses must be taken at Oakland. 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 HST 114 and 115; at least 8 credits must be in courses numbered 300 or above. In addition SED 427, Methods of Teaching Secondary Students, is required. 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. 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 stated minimums. Students must consult with the secondary education minor adviser in the department.

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*.

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) 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.

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 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.

HST 261 Introduction to Latin American History I (4)
A survey of pre-Colombian and colonial Latin America to 1825, stressing the Hispanization of the society, its socio-economic institutions, the influence of the Enlightenment and the achievement of political independence.

HST 262 Introduction to Latin American History II (4)
Surveys the national period of Latin America from 1825 to the present, emphasizing the problems of nation-building and modernization, the emergence of nationalism and militarism and the roots of social revolutionary ferment.

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: permission of 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 writing foundation requirement.*
Prerequisite: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

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: 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: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 306 U.S. Colonial History (4)
Examines the major themes and developments of the Colonial period with an emphasis on regional settlement and development patterns, political and social growth, and the maturation of the colonies.
Prerequisite: 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: 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: 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: 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: 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: 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: 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: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 316 U.S. Cultural History to 1865 (4)
Examines major trends in American intellectual and cultural history from European-Native American contact until the Civil War, including Puritanism, evangelicalism, republicanism, democracy, sectional conflict, 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: 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: 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 1950's and the 1960's will receive significant attention. *Satisfies the university general education requirement in U.S. diversity.*
Prerequisite: 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: 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: 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: 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: 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: 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: HST 101 recommended.
Prerequisite: 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.
Prerequisite: 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: 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: 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: HST 101 recommended.
Prerequisite: WRT 160 or equivalent 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: 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: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 338 Ireland, 1691 to 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.
Prerequisite: 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: 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: 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: 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: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 345 France since 1789 (4)
French politics, society and international relations from the Great Revolution to the present.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 349 France in the Age of Absolutism and Enlightenment (4)
The ancient regime in France from the end of the wars of religion to the beginning of the Revolution (1589-1789).
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 350 The European Mind to 1700 (4)
Major developments in European thought from the God-oriented world views of the Middle Ages to the development of scientific concepts in the 17th century. Emphasis is on reading original materials.
Prerequisite: 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: HST 102 or equivalent or permission of instructor.

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: 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: 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: 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: 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: 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: 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: 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 that complicate political relationships across time. Students will develop a historical understanding of the basic themes of political identity, imperialism, and development.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 360 American Cultural Rebels (4)
A history of twentieth-century cultural avant-gardism and its impact on American society. Emphasis on the Lyrical Left of the 1910s, the Lost Generation of the 1920s, and the more contemporary Beats and Hippies.
Prerequisite: 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 university general education requirement in U.S. diversity.*
Prerequisite: 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. Identical with WGS 362. *Satisfies the university general education requirement in U.S. diversity.*
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 363 History of Southern South America (4)
The social, political and economic history of Argentina, Brazil and Chile in the 19th and 20th centuries; expansion and Indian warfare; slavery and Empire in Brazil; regionalism and nationalism; industrialization and urbanization; and international relations.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 366 Slavery and Race Relations in the New World (4)
A comparative approach to the study of slavery in North America, Latin America and the Caribbean and to present race relations in these areas.
Prerequisite: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 367 History of Mexico (4)
The scope and achievements of pre-Colombian civilizations, the Spanish Conquest, the emergence of a multiracial society, the achievement of political independence and nation-building in the 20th century.
Prerequisite: WRT 160 or 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 372 The Political Economy of Japan (4)
Japan's economic development since 1600: merchant versus samurai, the opening to world trade, industrial revolution, the war economy, the "Japanese miracle," and the ongoing aftermath of the stock-market collapse. Special attention to the subjective experiences of the men and women who built Japan's unique economic achievements.
Prerequisite: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 375 Women in China 1700 to the Present (4)
History of women's changing position in modern China, including a survey of women's status in traditional Chinese society under the Qing (1644-1911), women as contributors to modernization in China during the revolutionary period (1912-1949), and their struggle for equality since 1949.
Identical with WGS 375.
Prerequisite: 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: 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: 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: 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: 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: 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: 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 given to slavery and the slave trade.
Prerequisite: 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: 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: WRT 160 or equivalent with a grade of 2.0 or higher.

HST 391 Directed Readings in History (2, 4 or 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: 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: 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: 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: 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: 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 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: HST 115 or HST 320 or HST 321. 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: HST 101. 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: HST 101 or 102. WRT 160 with a grade of 2.0 or higher.

HST 491 Directed Research in History (4, 8 or 12)
Directed individual research for advanced history majors. Offered each semester.
Prerequisite: 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: 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: 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: 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: senior standing or permission of instructor, HST 300.

CENTER FOR INTERNATIONAL PROGRAMS

521 VARNER HALL (248) 370-2154
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Director: *Paul J. Kubicek (Political Science)*

International Studies Faculty:

Africa and African-America: *Getnet Bekele (History), DeWitt Dykes (History), Matthew Fails (Political Science)*

East Asia (China): *Linda Benson (History), Hsiagn-hua (Melanie) Chang (Chinese), Alan Epstein (Political Science), Shuishan Yu (Art History), Richard B. Stamps (Anthropology)*

East Asia (Japan): *Stephen Filler (Japanese), Seigo Nakao (Japanese)*

Latin America: *Henri Gooren (Anthropology), Emmett Lombard (Political Science), Aldona Pobutsky (Spanish), Cecilia Saenz-Roby (Spanish)*

Middle East: *Kellie D. Hay (Communication), Paul J. Kubicek (Political Science), Laura K. Landolt (Political Science), Weldon C. Matthews (History)*

Slavic World: *Paul J. Kubicek (Political Science)*

Drawing on faculty from various disciplines, the College of Arts and Sciences, the Center for International Programs (CIP), 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 and African-America, 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. The CIP also offers major and minor programs that focus on these world areas. Its major programs include East Asian Studies (China or Japan) and Latin American Studies. Its minor programs include African and African-American Studies, Chinese Studies, Japanese Studies, Latin American Studies, Middle Eastern Studies, Slavic Studies and South Asian Studies.

Requirements for the liberal arts majors in international studies, B.A. programs

The international studies majors consist of a minimum of 40 credits, of which 28 credits must be taken in the primary area (East Asian studies, Latin American studies); 12 credits in a complementary area of study; and language proficiency equivalent to 8 credits of work at the third year of study in an appropriate language. Language courses at the 100 and 200 level do not count toward the total number of credits for the major. The complementary area of study ordinarily consists of the appropriate introductory course and two additional courses appropriate to the area, which may be either international studies courses or departmental courses.

Duplication of course credit in the primary and complementary areas is not permitted. However, majors may apply their introductory course to both their major and general education requirement in international studies.

East Asian studies, B.A. program

Course requirements for the major in Chinese studies include IS 210 plus 24 additional credits drawn from the following list of courses: AH 104, 304; 307, 357; AN 362; HST 373, 374, 375, 376, 377; IS 381; LIT 100; PHL 350; PS 328, 334. The additional 12 credits for the complementary area of study may be taken in either Japanese or South Asian studies. The appropriate language is Chinese.

The Center for International Programs periodically sponsors summer study tours to China including study at the China Foreign Affairs University in Beijing.

Course requirements for the major in Japanese studies include IS 220 plus 24 credits drawn from the following list of courses: AH 104, 301, 307; HST 370, 371, 372, 375; IS 361-362 or IS 365-366, 381; LIT 100; PHL 350; and PS 334. The additional 12 credits for the complementary area of study may be taken in either Chinese or South Asian studies. The appropriate language is Japanese. 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: *Estela Moreno-Mazzoli (Modern Languages and Literatures)*

Course requirements for the major in Latin American studies include IS 250 plus 24 additional credits drawn from the following courses: AH 309; AN 370, 371, 372; HST 261, 262, 363, 366, 367; IS 385 and PS 335. The 12 credits for the complementary area must be taken in African and African-American studies. The appropriate language is Spanish.

Other course work 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 also offer the following courses for major credit: AH 490; IS 300, 390, 490; LIT 251 and 375. To be sure that course work in any of these courses will be counted toward their major, students must obtain the approval of the director or faculty adviser in the Center for International Programs before enrolling in them. Finally, all course work taken in the relevant language at the 300 level or above will count toward fulfillment of major requirements.

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 Center for International Programs, 521 Varner Hall, (248) 370-2154.

Requirements for the liberal arts minor in international studies

Minors in regional studies consist of a minimum of 20 credits of course work in a single world area as listed below, distributed as follows:

1. introductory course in the chosen region of study.
2. 16 additional credits as indicated for each world area, including up to, but no more than, 8 credits of language study appropriate to the chosen area, at any level.

Relevant independent study, directed research or special topics course work may also count toward fulfillment of the minor requirements, subject to CIP academic adviser approval.

African and African-American studies: IS 230, plus 16 credits drawn from AH 305, 351; ENG 342; HST 323, 362, 366, 386, 388; IS 380, 384; MUS 236, 336, 338; PS 312, 333; SOC/AN 331. Language options: French or Spanish.

Chinese studies: IS 210, plus 16 credits drawn from AH 104, 304, 307, 357; AN 362; HST 373, 374, 375, 376, 377; IS 381; LIT 100; PHL 350; PS 334. Language option: Chinese.

Japanese studies: IS 220, plus 16 credits drawn from AH 104, 301, 307; HST 370, 371, 372, 375; IS 361-362 or IS 365-366, 381; LIT 100; PHL 350; and PS 334. Language option: Japanese.

Latin American studies: IS 250, plus 16 credits drawn from AH 309; AN 370, 371, 372; HST 261, 262, 363, 366, 367; IS 385 and PS 335. Language option: Spanish or transferred course work in Portuguese.

Middle Eastern studies: IS 270, plus 16 credits of course work drawn from AH 104, 310, 320; HST 356, 357, 358, 359; LIT 100; PS 331; REL 101, 102. Language option: Arabic or Hebrew or transferred course work in another Middle Eastern language.

Slavic studies: IS 260, plus 16 credits of course work drawn from AH 343; HST 354, 355; IS 383; PS 337. Language option: transferred course work in any Slavic language.

South Asian studies: IS 240, plus 16 credits of course work drawn from AH 104, 307, 320; AN 361; IS 382; LIT 100; PHL 350, 352; PS 334. Language option: transferred course work in any South Asian language.

Study Abroad Opportunities

The Center for International Programs offers the following study abroad opportunities:

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, 403 Wilson Hall, (248) 370-2066 or messages at (248) 370-2154.

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: Brian Connery, Director of International Education, 520 O'Dowd Hall or 322 Wilson Hall, (248) 370-4131 or messages at (248) 370-5112.

Vienna Study Abroad Program. One-semester and two-semester program. No language proficiency required. Courses taught in English. Housing with Viennese family. Interim Director of International Education, Brian Connery, 520 O'Dowd Hall or 322 Wilson Hall, (248) 370-4131 or messages at (248) 370-5112.

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. Interim Director of International Education, Brian Connery, 520 O'Dowd Hall or 322 Wilson Hall, (248) 370-4131 or messages at (248) 370-5112.

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. Interim Director of International Education, Brian Connery, 520 O'Dowd Hall or 322 Wilson Hall, (248) 370-4131 or messages at (248) 370-5112.

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, 419 Wilson 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. Coordinators: Barbara Mabee and Christopher Clason, Department of Modern Languages and Literatures, 418 Wilson, (248) 370-2099 or messages at (248) 370-2060.

Chinese Language and Culture Program at the China Foreign Affairs University, Beijing. Intensive 6-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: Richard Stamps, Department of Sociology and Anthropology, 526 Varner Hall, (248) 370-2425.

British Studies at Brasenose College, Oxford University, Oxford, England. Two three-week summer sessions. No foreign language proficiency required. Courses taught in English. Housing in college's private rooms. Coordinator: Brian Connery, Department of English, 521 O'Dowd Hall, (248) 370-2254 or messages at (248) 370-2251.

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 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*.

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 210 Introduction to China (4)
An 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 Introduction to Japan (4)
An 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 Introduction to Africa (4)
An interdisciplinary study of the peoples of Africa and their traditional and modern civilizations. *Satisfies the university general education requirement in the global perspective knowledge exploration area.*

IS 240 Introduction to India (4)
An 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.*

IS 250 Introduction to Latin America (4)
An 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.*

IS 260 Introduction to Russia and Eastern Europe (4)
An 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.*

IS 270 Introduction to the Middle East (4)
An 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.*

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.
Prerequisite: appropriate IS introductory course.

IS 350 World Regional Geography (4)
Identical with AN 350 and GEO 350.
Prerequisite: AN 200 or IS 200 or GEO 200.

IS 361-362 Japan Exchange Program I (16-18 each)
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 363-364 Japan Exchange Program II (16-18 each)
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 365-366 Japan Program: Shiga I (4-18 each)
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 367-368 Japan Program: Shiga II (4-18 each)
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 Orléans in France and includes the study of French grammar. French is the language of instruction. Fall semester.
Prerequisite: permission of program coordinator.

IS 371 France Exchange Program: Literature I (4)
Course is taught at the University of Orléans in France and includes the study of French literature. French is the language of instruction. Fall semester.
Prerequisite: permission of program coordinator.

IS 372 France Exchange Program: Conversation, Comprehension, Writing I (4)
Course is taught at the University of Orléans in France and includes French conversation, comprehension and writing. French is the language of instruction. Fall semester.
Prerequisite: permission of program coordinator.

IS 373 France Exchange Program: Civilization I (4)
Course is taught at the University of Orléans in France and includes French history, geography and contemporary civilization. French is the language of instruction. Fall semester.
Prerequisite: permission of program coordinator.

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: instructor permission.

IS 470 France Exchange Program: Language II (4)
Course is taught at the University of Orléans in France and includes the study of French grammar. French is the language of instruction. Winter semester.
Prerequisite: permission of program coordinator.

IS 471 France Exchange Program: Literature II (4)
Course is taught at the University of Orléans in France and includes the study of French literature. French is the language of instruction. Winter semester.
Prerequisite: permission of program coordinator.

IS 472 France Exchange Program: Conversation, Comprehension, Writing II (4)
Course is taught at the University of Orléans in France and includes the study of French conversation, comprehension and writing. French is the language of instruction. Winter semester.
Prerequisite: permission of program coordinator.

IS 473 France Exchange Program: Civilization II (4)
Course is taught at the University of Orléans in France and includes the study of French history, geography and contemporary civilization. French is the language of instruction. Winter semester.
Prerequisite: permission of program coordinator.

IS 380-385 Seminars (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: senior standing and permission of instructor.

IS 380 Seminar in African-American Studies

IS 381 Seminar in East Asian Studies

IS 382 Seminar in South Asian Studies

IS 383 Seminar in Russian and Eastern European Studies

IS 384 Seminar in African Studies

IS 385 Seminar in Latin American Studies

IS 386 Slavic Folk Studies (2)
An intensive survey of the traditional music, songs, dances and costumes of selected Slavic cultures. Includes participation in the Slavic Folk Ensemble. May be repeated once for a total of 4 credits. Graded S/U.

IS 390 Directed Readings in International Studies (2, 4, 6 or 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 a total of 8 credits.
Prerequisite: appropriate IS introductory course and permission of program chairperson and instructor.

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: instructor permission.

IS 490 Directed Research in International Studies (2, 4, 6 or 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.
Prerequisite: senior standing and permission of program chairperson and instructor.

LIBERAL STUDIES PROGRAM

Director: *Cynthia Sifonis (Psychology)* (248) 370-4680

Liberal Studies Executive Committee:

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. LBS 100 and LBS 200 with a minimum grade of 2.5 in each course. LBS 100 and LBS 200 must be completed prior to junior standing.
2. The program core consists of either:
   a. An interdisciplinary College of Arts and Sciences concentration that requires at least 28 credit hours, of which 20 credits must be 300-level or above.
   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 require 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.
3. A discipline-specific methods course that is relevant to program core. This course must be approved by the program adviser.
4. LBS 495 and 496 with a minimum grade of 3.0 in each course.

The Liberal Studies Executive Committee will maintain a current list of concentrations and minors that meet the above requirements. Minor combinations will need pre-approval by the committee.

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 495/496). The Liberal Studies Executive Committee will determine program honors recipients.

Course Offerings

LBS 100 Exploration of the 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.

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.
Prerequisite: LBS 100 with a grade of 2.0 or higher and completion of the university writing foundation requirement.

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: 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.
Prerequisite: LBS 495 and permission of instructor.

DEPARTMENT OF LINGUISTICS

320 O'DOWD HALL (248) 370-2175
lin.oakland.edu Fax: (248) 370-3144

Chairperson: *Samuel Rosenthall*

Professors emeriti: *Carlo Coppola (Hindi-Urdu), Daniel H. Fullmer, William Schwab*

Professors: *Peter J. Binkert (Linguistics, Classics), Michael B. Smith*

Associate professor: *Samuel Rosenthall*

Assistant professors: *Lisa Levinson, Kuniko Nielsen*

Associated faculty: *Professor Alice S. Horning (Rhetoric, Communication and Journalism; 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. LIN 201 (*with a grade of 3.0 or higher*)
    b. LIN 302 or 307
    c. LIN 303 and 304
    d. LIN 403 or 404
    e. LIN 470 (*fulfills the university general education requirement for the capstone experience and for a writing intensive course in the major or general education*).
    f. Eight credits of 300-400 level ALS or LIN courses.
2. At least 8 additional credits from LIN or ALS courses.

3. Either a) two year's study of a single foreign 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 (*with a grade of 3.0 or higher*), 303, 304, 470 and either 403 or 404. LIN 470 *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 and 130 and three courses chosen from CSE 220, 247, 248, 251, 230. 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. PHL 370.

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 specified courses. In the case of the liberal arts major, the courses include the seven required LIN and ALS courses and the three additional courses listed above. In the case of the modified major with a minor in computer science, the courses include the six required LIN and ALS courses, the five required CSE courses and PHL 370.

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 to include:

1. LIN 201(*with a grade of 3.0 or higher*), 303, 304 and either 403 or 404.
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.

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 in linguistics

To earn a Teaching English as a Second Language minor in linguistics, student must complete a minimum of 24 credits to include: LIN 201 (with a grade of 3.0 or higher), ALS 317, 375, 418, 419, and 438. Credit toward the minor will only be allowed for courses with a grade of 2.0 or higher.

Students must satisfy the eligibility requirement described under Practicum Eligibility to obtain the minor.

Requirements for a modified major with a concentration in linguistics

Students may elect a modified major in anthropology, communication, English, philosophy, psychology, or sociology, with a concentration in linguistics.

The core in linguistics requires 16 credits including LIN 201 (*with a grade of 3.0 or higher*), 303, 304 and either 403 or 404. An additional 4 credits in linguistics courses for the specific concentrations are ALS 374 or 375 (anthropology), LIN 305 (communication), LIN 376 (English), LIN 307 or 475 (philosophy), ALS 335 (psychology), and ALS 376 (sociology). For requirements in the modified majors, students should consult the appropriate department.

Certificate in teaching English as a Second Language

Students may earn a certificate in teaching English as a second language (TESL) by completing the following courses: LIN 201 (*with a grade of 3.0 or higher*), ALS 418 and 419. In all cases a student must complete 12 credits in linguistics courses at OU and must satisfy the eligibility requirement described in Practicum Eligibility to obtain the certificate. Students interested in this certificate should contact an adviser in the Department of Linguistics.

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.

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*.

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 370. *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: 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 repeated for up to 8 credits.
Prerequisite: 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: ALS 317 or ALS 418 or permission of instructor.

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: permission of the Department of Linguistics.

LIN 301 Linguistic Structures (4)
An introduction to synchronic linguistic analysis, with structural problems in natural languages.
Prerequisite: 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: 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: 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: 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: 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: 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: LIN 201 and CSE 130.

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: LIN 201 or permission of instructor.

LIN 376 History of the English Language (4)
Identical with ENG 376.
Prerequisite: WRT 160.

LIN 403 Phonological Theory (4)
A presentation of theory and application of phonological analysis with emphasis on original work.
Prerequisite: 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: LIN 304 with a grade of 2.0 or higher.

LIN 407 Semantic Theory (4)
Presentation of theory and application of semantic analysis with emphasis on original work.
Prerequisite: LIN 307 with a grade of 2.0 or higher.

LIN 409 Studies in the Structure of a Language (4)
Study of the structural aspects of an individual language to be determined by the instructor
Prerequisite: LIN 303 or 304.

LIN 413 Advanced Phonology (4)
Advanced course in phonology with emphasis on current issues in phonological theory.
Prerequisite: LIN 403.

LIN 414 Advanced Syntax (4)
Advanced course in syntax with emphasis on current issues in syntactic theory.
Prerequisite: LIN 404.

LIN 417 Advanced Semantics (4)
Advanced course in semantics with emphasis on current issues in semantic theory.
Prerequisite: 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: 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: 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: LIN 201 and permission of the instructor.

LIN 490 Independent Study (2 or 4)
Special research projects in linguistics. Graded numerically or S/U by written agreement with linguistics faculty supervisor.
Prerequisite: LIN 201 and permission of the instructor.

LATIN LANGUAGE AND ROMAN CULTURE

LTN 114-115 Introduction to Latin Language and Roman Culture (4 each)
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 115 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.*

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 who currently are not

enrolled in a degree program at Oakland University. These classes can be taken as continuing education classes (CE) as well. Students should consult the English as a Second Language Center for placement in appropriate classes and to take these courses for CE credit.

ENGLISH AS A SECOND LANGUAGE

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 05 are elementary 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.

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. May be repeated for up to 12 credits.
Prerequisite: 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: 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: 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: 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: 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 credits.
Prerequisite: 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: 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: 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: 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: 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: 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 of information received aurally. May be repeated for up to 12 credits.
Prerequisite: 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: 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: 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: 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: 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: 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: 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: placement.

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: 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: placement.

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: 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: 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: 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: 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: placement.

ESL 090 English for Instructional Purposes (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: graduate assistantship.

ESL 092 Research Papers and Thesis Writing for Graduate Students (4)
For non-native speakers only. Designed to aid graduate students with the tasks of writing substantive research papers or theses.
Prerequisite: graduate student standing.

DEPARTMENT OF MATHEMATICS AND STATISTICS

368 SCIENCE AND ENGINEERING BUILDING (248) 370-3430
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Chairperson: *Eddie Cheng*

Professors emeriti: *Harvey J. Arnold, Louis R. Bragg, J. Curtis Chipman, George F. Feeman, William C. Hoffman, G. Phillip Johnson, Donald G. Malm, James H. McKay, Sze Kai Tsui*

Professors: *Kevin T. Andrews, Baruch Cahlon, Charles C. Cheng, Eddie Cheng, Jerrold W. Grossman, Ravindra Khattree, Gary C. McDonald, Louis J. Nachman, Subbaiah Perla, Darrell Schmidt, Irwin E. Schochetman, Meir Shillor, J. Barry Turett, Stuart S. Wang, Stephen J. Wright, Wen Zhang*

Associate professors: *David J. Downing, Serge Kruk, Robert H. Kushler, László Lipták, Theophilus Ogunyemi, Xiangqui Qu, Tanush Shaska, Peter Shi, Anna Spagnuolo*

Assistant professors: *Dorin Drignei, Xiaoli Gao, Li Li, Libin Rong*

Adjunct professors: *Seth Bonder, Edward F. Moylan, Robert Smith*

Chief adviser: *Jerrold W. Grossman*

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 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 118.

I: The student has demonstrated competence through MTH 061* and is ready for MTH 062* or 118.

R: The student has demonstrated competence through MTH 062* and is ready for MTH 118, 121, 141; MTE 210 or STA 225.

C: The student has demonstrated competence through MTH 141 and is ready for MTH 118, 121, 122, 154 ; MTE 210, STA 225, 227 or 228.

Formal course competency credit is not available in MTH 061*, 062* or 141.

*See information concerning these courses below.

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, 155, 254, 275, 302, 452, 475 and STA 226.
2. Complete three additional 3- or 4-credit courses in the mathematical sciences chosen from APM 255, APM 263, MOR 242, and courses labeled MTH, APM, MOR or STA at the 300-400 level, with the exception of MTH 497, with a grade of at least 2.0 in each. Majors in the secondary education program must choose APM 263, MTH 462 and 414 as these three courses. Well-prepared students may substitute 500-level courses with the approval of the departmental adviser.
3. Complete CSE 130, CIT 130, or EGR 141 with a grade of at least 2.0.
4. Complete two additional 3- or 4-credit courses, as approved by the departmental adviser, in science, engineering or computer science, with an average grade of at least 2.00. 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, 155, 254, 275, 302, 452, 453, 475 and STA 226.
2. Complete four additional 3- or 4-credit courses in the mathematical sciences chosen from APM 255, APM 263, MOR 242, and courses labeled MTH, APM, MOR or STA at the 300-400 level, with the exception of MTH 497, with a grade of at least 2.0 in each. Majors in the secondary education program must include APM 263, MTH 462 and 414 among these four courses. Well-prepared students may substitute 500-level courses with the approval of the departmental adviser.
3. Complete CSE 230 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 2.0. 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 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, 402, 427, 428 and 12 credits chosen from STA courses numbered above 300 (but not including STA 501-502).
2. Complete MTH 154, 155, 254, 275 and one more course chosen from APM 255, 263, 332, 433, 434; MTH 452; MOR 242, 454, 455, 456.
3. Complete CSE 130, CIT 130, or EGR 141.
4. Complete ENG 380, WRT 380, WRT 381, or WRT 382.
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 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 and 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 a 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:

1. Complete MTH 154, 155, 254, and 275.
2. Complete STA 226 and 427.
3. Complete ECN 210 or both ECN 200 and ECN 201, and ECN 302 and 303.
4. Complete QMM 241.
5. Complete FIN 322, 416 and 422.
6. Complete ECN 450/APM 450 and either ECN 405 or STA 402.
7. Complete one of the following electives: APM 255, 433, 434; STA 425, 428.
8. Complete cognate courses ACC 200, EGR 141, and WRT 382.
9. Earn a minimum grade of 2.0 in all courses applied to the major, including cognate courses.

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. Students in this program must complete the requirements for a B.A. or B.S. degree in mathematics and include APM 263, MTH 462 and 414 among the mathematics electives. A program in STEP must also include a 20-28 credit secondary teaching minor and a sequence of undergraduate course work in education to include SED 300, RDG 338, IST 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 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, 254, 275; APM 255, 263; MOR 242; STA 226 or any 300-400 level courses labeled MTH, APM, MOR or STA, except MTH 497. 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 Requirements for the applied mathematics minor for students in the School of Engineering and Computer Science below.

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, STA 402 and at least three other STA courses at the 300 level or above, excluding STA 501 and STA 502. 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, 155; APM 263; STA 226; MTH 302, 462; and SED 426. 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 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, 275, 302, STA 226 (or another statistics course approved by the departmental adviser) and either MTH 452 or MTH 475.

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 062 to replace a grade previously earned in MTH 011, 012, 102, 103, 111 or 112, the grade earned in MTH 061 or 062 will replace the former grade.

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*.

MATHEMATICS

MTH 061 Elementary Algebra (4)
Order of operations, algebra of exponents, radicals, variable expressions, polynomial arithmetic, factoring, algebraic fractions, liner equations and inequalities in one variable; applications and problem solving.

MTH 062 Intermediate Algebra (4)
Complex numbers, quadratic equations, nonlinear inequalities, analytic geometry (points and lines in the coordinate plane, distance, circles, parabolas, ellipses and hyperbolas), 2 by 2 and 3 by 3 systems of linear equations, introduction to functions and their graphs, theory of equations, logarithms, applications and problem solving.
Prerequisite: 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: 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: 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: 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: 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. Prerequisite for knowledge applications: completion of the university general education requirement in the formal reasoning knowledge foundation area.*
Prerequisite: 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.
Prerequisite: permission of instructor.

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: MTH 155 with a grade of 2.0 or higher.

MTH 266 Linear Algebra Laboratory (1)
Computational investigation of selected topics in linear algebra.
Prerequisite or corequisite: MTH 275 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: 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: permission of department.

MTH 301 Putnam Seminar (0 or 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: 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: 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: 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.
Prerequisite: 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 a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite: 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 choice.
Prerequisite: 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: MTH 254 with a grade of 2.0 or higher and MTH 302 with a grade of 2.0 or higher, 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: MTH 452 with a grade of 2.0 or higher.

MTH 461 General Topology (4)
A study of topological spaces and continuous functions. Separation and countability properties, connectedness, compactness and local properties.
Prerequisite: 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.
Prerequisite or corequisite: 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: 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: MTH 302 with a grade of 2.0 or higher.

MTH 475 Abstract Algebra (4)
Groups, subgroups, cosets, and homomorphisms; rings and ideals; integral domains; and fields and field extensions. Applications. Offered every winter.
Prerequisite: MTH 302 with a grade of 2.0 or higher or permission of department.

MTH 490 Independent Study (2 or 4)
Reading or research on some mathematical topic. May be repeated for additional credit.
Prerequisite: 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: permission of department.

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: 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: 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: 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: 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: 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: CSE 231 and APM 263 with a grade of 2.0 or higher.

APM 381 Theory of Computation (4)
Formal models of computation, including finite state automata, pushdown automata and Turing machines. Regular and context-free languages. The computational models are used to discuss computability issues. Identical with CSE 343.
Prerequisite: 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: 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: 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: 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 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: 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: 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: 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: 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: 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.*
Prerequisite or corequisite: 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: 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.
Prerequisite: 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.
Prerequisites: 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.
Prerequisites: 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: 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.
Prerequisites: 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: 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 APM 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.
Prerequisite or corequisite: 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: 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.
Prerequisite: 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: 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: MTH 155 with a grade of 2.0 or higher.

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: MTH 254 with a grade of 2.0 or higher and MTH 302 with a grade of 2.0 or higher.

MOR 455 Nonlinear Optimization (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: 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: MTH 254 with a grade of 2.0 or higher, 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 Numerical Structures (4)
Elementary set and number theory. Components of the real number system. History of numeration. Algorithms of arithmetic. Other general algebraic structures. Problem solving. Enrollment limited to elementary education majors.
Prerequisite: MTH 062 with a grade of 2.0 or higher or placement.

MTE 211 Structures of Geometry (4)
An informal approach to geometry including topics from Euclidean and transformational geometries. Stress is placed on topics close to the elementary school curriculum such as mensuration formulae, ruler and compass construction, symmetries, congruence and similarity, and figures in two and three-dimensional Euclidean spaces. Enrollment is limited to elementary education majors.
Prerequisite: MTE 210 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: 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: MTE 211 and STA 225 with a grade of 2.0 or higher.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

372 O'DOWD HALL (248) 370-2060

Chairperson: *Ronald F. Rapin*

Distinguished professor emeritus: *Jack R. Moeller (German)*

Professors emeriti: *John W. Barthel (German), Dolores Burdick (French), Carlo Coppola (Hindi-Urdu), Renate Gerulaitis (German), Don R. Iodice (French), David Jaymes (French), Estela Moreno-Mazzoli (Spanish), Munibur Rahman (Hindi-Urdu), Robert E. Simmons (German), Amitendranath Tagore (Chinese), Carmen Urla (Spanish)*

Professors: *Christopher Clason, (German), Barbara Mabee (German)*

Associate professors: *Stacey L. Hahn (French), Jennifer Law-Sullivan (French), Frances Meuser (Spanish), Seigo Nakao (Japanese), Aldona Bialowas Pobutsky (Spanish), Ronald F. Rapin (Spanish), Ingrid Broszeit-Rieger (German)*

Assistant professors: *Adolfo Campoy-Cubillo (Spanish), Hsiang-Hua Chang (Chinese), Stephen Filler (Japanese), Caroline Jumel (French), Maria Cecilia Saenz-Roby (Spanish), Mary Hartson (Spanish)*

Special instructors: *Dikka Berven (French), Julia Urla (Spanish)*

Special lecturers: *Yukiko Aigbedo (Japanese), Luz Clarke (Spanish), Bernadette Donohue (French), Jamila Doppke (French), Linda Eghtedari (German), Fatima Ferreira (Spanish), Tara Gardner (Spanish), Diana Greig (Spanish), Eiko Hiranuma (Japanese), Benjamin Hoffiz (Arabic), Mahmoud Hussein (Arabic), Setsuko Konishi (Japanese), Angela Milliken (Spanish), Henryka Nemesh (French), Jose´ Saenz (Spanish), Cornelia Schaible (German), Mayra Schmalzried (Spanish), Neldys Shekleton (Spanish), Gheorghita Tres (Spanish), Holly Walker-Cote´ (Spanish), Masae Yasuda (Japanese)*

Lecturers: *Lisa Agazzi (Italian), Shanyi Chen (Chinese), Ning-Ning Fang-Rothman (Chinese), Joaquin Frias (Spanish), Nira Lev (Hebrew), Michele Plattenberger (Japanese), Eric Russell (Spanish), Julia Salman (German), Wendy Shyu (Chinese), Mei-hsiao Tang (Chinese), Grzegorz Tokarski (Italian)*

Chief adviser: *Christopher Clason*

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 economics, business, international management, computer science, communication or journalism. Knowledge of a foreign language also enhances the study of other disciplines, such as political science, English, linguistics, art or music. All language students may be asked to participate in departmental assessment activities.

Placement examinations

The Department of Modern Languages and Literatures offers language placement testing in French, German 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 French, German 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, Japanese or Spanish must take the appropriate placement test during summer orientation. Students with previous language experience may not enroll in any 114 language courses without department permission. In case of questions concerning proper placement, students should consult with the department's advising office, (248) 370-2060.

Competency examinations

Students may take a competency examination to fulfill the general education requirement for foreign language. The languages are Arabic, Chinese, French, German, Hebrew, Italian, Japanese and Spanish. Students who wish to take this exam should consult the Department of Modern Languages for approval of the department chairperson.

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 liberal arts majors in a modern language and literature, B.A. program

The department offers four majors in language and literature: French, German, Japanese and Spanish. The requirement for the major in French is a minimum of 32 credits at the 300 and 400 levels in language, culture and literature, and must include 314, 316, 318, 370, 380 and 408 plus two 400-level literature courses.

The requirement for the major in German is a minimum of 36 credits at the 300 and 400 levels in language, culture and literature, and must include 314, 316, 318, 371, 381, 408 and two 400-level literature courses.

The requirement for the major in Japanese is 32 credits at the 300 and 400 levels in language, culture and literature, and must include 314, 316, 318, 355, 370 and 420 and three courses from 351, 408, 455 and 457.

The requirement for the major in Spanish is a minimum of 36 credits at the 300 and 400 levels in language, culture and literature, and must include 314, 316, 318, 370, 380 and 408 plus two 400-level literature courses.

In all languages, two corequisite courses are required: one in history or civilization (in French, FRH 351; in German, GRM 440; in Spanish, SPN 351 (or IS 250) and LIT 181 or 182. In Japanese, corequisite courses are IS 220 and one from the following: IS 300 (when the topic is Japan), AH 301, HST 370, HST 371, HST 372, CIN 350 (when topic is Japanese cinema), LIT 100, LIT 251 (when topic is Japanese cinema), LIT 375 (when topic is Japanese literature). 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, 316, 318, 340, 355, 371 or 381, 408 and 440. Corequisite courses are AH 345; LIT 181 or 182; MUS 100; PS 373; and two from among the following: AH 334; HST 327, 341, 343. 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 and Spanish. Generally, eligibility for admission to the STEP requires a GPA of 3.00 in both the major and minor, an Oral Proficiency Interview (OPI) score of advanced-low, 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.

A program in STEP must also include a sequence of undergraduate course work in education to include SED 300, IST 397, RDG 338, FE 406, EED 420, SED 427, **and** SE 401. Methods EED 428 and SED 428 and the internship SED 455 are 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 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, 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. (Students interested in a five-year program leading to a Bachelor of Arts degree

in a modern language and a Master of Business Administration should consult the Oakland University Graduate Catalog.) 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

The requirements are a minimum of 20 credits in Spanish language courses that must include SPN 314, 316, 318, 380 and 408; and 20 credits in Latin American studies courses, including IS 250. 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 department also offers the Holzbock Humanities Scholarship (For information, see General Information on Scholarships at the front of this catalog).

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 Seigo Nakao.

Students majoring or minoring in French wishing to participate in the exchange program with the University of Orleans 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 Barbara Mabee.

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 for International Education, 520 O'Dowd Hall. For further information on these programs, and on other study abroad opportunities, see the Center for International Programs 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, 418 Wilson Hall, after consultation with an adviser in the Department of Modern Languages and Literatures. Minors are

available in French, German, Japanese or Spanish language and literature. The requirement is a minimum of 20 credits beyond the 115 level, including 370 and 380 in French and Spanish; and 371 and 381 in German; and 370 and 420 in Japanese. 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

Minors are available in Chinese, French, German, Japanese or Spanish language. The requirement is a minimum of 20 credits beyond the 115 level. Chinese must include courses numbered 314, 316, 318 and one of the following: 351, 355, 357 or 408. French and Spanish must include courses numbered 314, 316, 318 and one of the following courses: 351, 355, 408, 455 or 457 (in French, FRH 357). German requires courses numbered 314, 316, 318 and 4 credits from courses numbered 340, 355, 408, 455 or 457. Japanese must include 314, 316, 318, and one of the following courses: 351, 355, 408, 455 or 457. 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, 215, 316, 318, 351 and 355. In addition, IS 210 is a corequisite course for the minor. CHE 314, 357, 390 or 408 can qualify as an alternative to CHE 351. 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 in German beyond first year. The courses required are GRM 314, 316, 318, 340, 408 and 440. LIT 181 or 182 is also required. 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, beyond the 115 level and must include 314, 316, 318 and 351. IS 220 is a corequisite course for the minor. At least 12 credits of those required for the minor in Japanese language and civilization must be taken at Oakland University.

Concentration in French studies

Coordinator: *Stacey Hahn*

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. Students should refer to the *Other Academic Options* section for concentration requirements.

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. All credits must be at the 300-400 level; 314, 316, 318, 351 and 370 (plus 4 credits elective) in French; 314, 316, 318, 351 and 380 (plus 4 credits elective) in Spanish; and 314, 316, 318, 371 and 440 (plus 4 credits elective) in German. At least 12 credits of those required for the secondary teaching minor in a modern language must be taken at Oakland University. Generally, admission to the STEP requires a G.P.A. of 3.00 in both the major and minor, and an overall G.P.A. of 2.80. Second undergraduate degree candidates completing the minor may be required to take additional courses at Oakland University

beyond the stated minimums. In addition, an Oral Proficiency Interview (OPI) score of advanced-low and SED 428, Methods of Teaching Foreign Language are required. Students must consult with the appropriate adviser 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. All credits must be at the 300-400 level: 314, 316, 318, 351, 370 and 380 (plus 12 credits elective) in French; 314, 316, 318, 355, 370, 408 and IS 220 (plus 8 credits elective) in Japanese; 314, 316, 318, 351, 370, 380 and IS 250 (plus 8 credits elective) in Spanish; and 314, 316, 371, 381 and 440 (plus 12 credits elective) in German. At least 16 credits of those required for the elementary teaching major in a modern language must be taken at Oakland University. In addition an Oral Proficiency Interview (OPI) score of advanced-low and EED 428, Methods of Teaching Foreign Language are 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 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. All credits must be at the 300-400 level: 314, 316, 318, 351 and 370 (plus 4 credits elective) in French; 314, 316, 318, 355 and 370 (plus 4 credits elective) in Japanese; 314, 316, 318, 351 and 380 (plus 4 credits elective) in Spanish; and 314, 316, 318, 371 and 440 (plus 4 credits elective) in German. At least 12 credits of those required for the elementary teaching minor in a modern language must be taken at Oakland University. In addition, an Oral Proficiency Interview (OPI) score of advanced-low, and EED 428, Methods of Teaching Foreign Language are required. Students must consult with the appropriate adviser 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*.

Certificate in teaching English as a second language

Students may earn a certificate in teaching English as a second language (ESL) by completing the following courses: LIN 201, ALS 418 and ALS 419 or their equivalents. In any case, a student must complete 12 credits in linguistics courses at OU to obtain this certificate. Students interested in earning this certificate should contact an adviser in the Department of Linguistics.

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*. Modern Language courses at the 114-level satisfy the general education foreign language and culture requirement. Students who place into 115, 214 or 215 may use the credits to satisfy the general education foreign language and culture area.

ARABIC LANGUAGE

ARB 114-115 Introduction to Arabic and Arabic Culture (4 each)
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 214-215 Second Year Arabic (4 each)
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 215 satisfies the university general education requirement in the foreign language and culture knowledge exploration area.*
Prerequisite: one year of college Arabic or equivalent.

CHINESE LANGUAGE

CHE 114-115 Introduction to Chinese and Chinese Culture (4 each)
A two-semester sequence in the fundamentals of modern Mandarin Chinese (kuo-yu) 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 214-215 Second Year Chinese (4 each)
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.*
Prerequisite: one year of college Chinese or equivalent.

CHE 314 Grammar Review Through Translation (4)
Review Chinese grammar through translation of a variety of materials from English to Chinese and Chinese to English.
Prerequisite: CHE 215 or equivalent.

CHE 316 Chinese Conversation (2)
Practice in speaking at intermediate level. Format may include oral presentations and phonetics. Must be taken concurrently with CHE 318.
Prerequisite: 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: CHE 215 or equivalent.

CHE 351 Chinese Civilization (4)
Survey of Chinese culture and civilization from topical, historical and literary perspectives. Conducted in Chinese and English.
Prerequisite: 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: 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: CHE 215 or equivalent.

CHE 390 Directed Readings in Chinese (2 or 4)
Directed individual readings in Chinese. May be repeated for a total of 8 credits.
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: CHE 316 or permission of instructor.

FRENCH LANGUAGE AND LITERATURE

FRH 114-115 Introduction to French and French Culture (4 each)
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 214-215 Second Year French (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: 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: 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: 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: 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. *Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.*
Prerequisite: FRH 215.

FRH 316 French Conversation (2)
Practice in speaking at intermediate level. Format may include oral presentations and phonetics. Offered winter semester.
Prerequisite: 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: FRH 215.

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: 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: 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: 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: 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: 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: FRH 370.

FRH 390 Directed Readings in French (2 or 4)
Directed individual readings in French. May be repeated for a total of 8 credits.
Prerequisite: permission of instructor.

FRH 408 Advanced French Conversation (2)
Practice in speaking at an advanced level. Format may include oral presentations and readings.
Prerequisite: 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 the capstone experience*.
Prerequisite: 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 the capstone experience*.
Prerequisite: 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 the capstone experience*.
Prerequisite: 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 the capstone experience*.
Prerequisite: 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: FRH 314, 316, 318 and 355.

FRH 480 Undergraduate Seminar (2 or 4)
Study of individual authors, selected themes or critical problems. Conducted in French.
Prerequisite: FRH 314, 370 and 380.

FRH 490 Independent Reading and Research (2, 4 or 8)
Directed individual research and reading for advanced French majors. May be repeated for a total of 8 credits.
Prerequisite: two 400-level French literature courses and permission of department.

FRH 491 Independent Translation Project (4, 6 or 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: FRH 355 and 455 and permission of department.

GERMAN LANGUAGE AND LITERATURE

GRM 114-115 Introduction to German and German Culture (4 each)
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 214-215 Second Year German (4 each)
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 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: 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: GRM 215.

GRM 300 Germany Exchange: Oldenburg I (4-18)
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: permission of program coordinator.

GRM 314 Advanced German Grammar, Texts and Contexts (4)
Review and refinement of German grammatical and literary skills with an emphasis on the development of cultural understandings. Offered fall semester. *Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.*
Prerequisite: 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: 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: 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: 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: 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: 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: GRM 215.

GRM 381 Great Works in German Literature (4)
A historical survey. Conducted in German.
Prerequisite: GRM 215.

GRM 390 Directed Readings in German (2 or 4)
Directed individual readings in German. May be repeated for a total of 8 credits.
Prerequisite: permission of instructor.

GRM 400 Germany Exchange: Oldenburg II (4-18)
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: 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: 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: 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: 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: 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: 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: 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: 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: 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: GRM 371 and 381.

GRM 490 Independent Reading and Research (2, 4 or 8)
Directed individual research and reading for advanced German majors. May be repeated for a total of 8 credits.
Prerequisite: two 400-level German literature courses and permission of department.

GRM 491 Independent Translation Project (4, 6 or 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: GRM 355 and 455 and permission of department.

HEBREW LANGUAGE AND LITERATURE

HBR 114-115 Introduction to Hebrew Language and Culture (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.*

ITALIAN LANGUAGE AND LITERATURE

IT 114-115 Introduction to Italian and Italian Culture (4 each)
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 214-215 Second Year Italian (4 each)
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: one year of college Italian or equivalent.

IT 390 Directed Readings in Italian (2 or 4)
Directed individual readings in Italian. May be repeated for a total of 8 credits.
Prerequisite: permission of instructor.

JAPANESE LANGUAGE AND LITERATURE

JPN 114-115 Introduction to Japanese and Japanese Culture (4 each)
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 214-215 Second Year Japanese (4 each)
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: 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. *Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.*
Prerequisite: JPN 215 or equivalent.

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: 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: 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: JPN 355.

JPN 355 Translation: Japanese (4)
Translation from Japanese to English of a range of materials from commercial and technical to literary.
Prerequisite: 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. JPN 314 strongly recommended.
Prerequisite: JPN 215.

JPN 390 Directed Readings in Japanese (2 or 4)
Directed individual readings in Japanese. May be repeated for a total of 8 credits.
Prerequisite: 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: JPN 316, 318 and 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: 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: JPN 314, 316, 318 and 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: JPN 316 and 318 or equivalent.

SPANISH LANGUAGE AND LITERATURE

SPN 114-115 Introduction to Spanish and Hispanic Cultures (4 each)
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 214-215 Second Year Spanish (4 each)
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 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: 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: 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: SPN 215.

SPN 314 Spanish Grammar Review (4)
Review of Spanish grammar and syntax through a variety of approaches. Conducted in Spanish. Satisfies the university general education requirement in the foreign language and culture knowledge exploration area.
Prerequisite: 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: SPN 215.

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: SPN 215.

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: SPN 215.

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: SPN 314.

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: SPN 215.

SPN 370 Introduction to Spanish Literature (4)
A study of literary genres and movements based on selected masterpieces of Spanish literature. Conducted in Spanish.
Prerequisite: SPN 215.

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: SPN 215.

SPN 390 Directed Readings in Spanish (2 or 4)
Directed individual readings in Spanish. May be repeated for a total of 8 credits.
Prerequisite: 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. Conducted in Spanish. 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: 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: 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: 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: 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: 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.
Prerequisite: 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.*
Prerequisite: 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: 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. Conducted in Spanish.
Prerequisite: 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: 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: 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: SPN 370 and 380.

SPN 490 Independent Reading and Research (2, 4 or 8)
Directed individual research and reading for advanced Spanish majors. May be repeated for a total of 8 credits.
Prerequisite: 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: SPN 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.

MODERN LANGUAGE

ML 191-192 Tutorial in Foreign Language (4 each)
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: 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 for a total of 8 credits.
Prerequisite: permission of instructor.

ML 291-292 Intermediate Tutorial in Foreign Language (4 each)
Intermediate work in a language and literature not normally taught at Oakland University. May be repeated for credit.
Prerequisite: 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 for a total of 8 credits.
Prerequisite: permission of department.

ML 391-392 Advanced Tutorial in Foreign Language (4 each)
Advanced work in a language not normally taught at Oakland University. May be repeated for credit.
Prerequisite: 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: 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: 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

Chairperson: *Jacqueline Wiggins*

Program directors: *Michael Mitchell, Music; Kerro Knox 3, Theatre; Gregory Patterson, Dance*

Professors emeriti: *David Daniels, John Dovaras, Robert Facko, Carol Halsted, Adeline G. Hirschfeld-Medalia, Marvin D. Holladay, Flavio Varani*

Professors*: Laurie Eisenhower, Karen Sheridan, John-Paul White, Jacqueline Wiggins*

Associate professors: *Lettie Alston, Gregory Cunningham, Michael Gillespie, David Kidger, Kerro Knox 3, Kenneth Kroesche, Michael Mitchell, Gregory Patterson, Joseph Shively, George Stoffan*

Assistant professors: *Deborah Blair, Drake Dantzler, Melissa Hoag, Thayer Jonutz, Andrew Layton, Lynnae Lehfeldt, Fred Love, Jessica Payette, Yin Zheng*

Visiting assistant professors: *Miles Brown, Alison Woerner*

Special instructors: *Mark Stone, Thomas Suda*

Full-time adjunct instructor: *Debra Bernstein Siegel*

Adjunct assistant professor: *Edith Diggory*

Artist-in-residence: *Regina Carter*

DSO affiliate applied faculty: *Douglas Cornelsen (clarinet), Maxim Janowsky (double bass), Marcus Schoon (bassoon), Sharon Sparrow (flute), Corbin Wagner (French horn), Jeffrey Zook (flute)*

Special lecturers: *Sean Dobbins, Mila Govich, Bret Hoag, Lois Kaarre, Jennifer Kincer Catallo, Marie Kujenga, Leslie Littell, Roberta Lucas, Thomas Mahard, Victoria Shively, Michele Soroka, Kristin Tait, Phyllis White*

Lecturers: *Kofi Ameyaw, Sandra Birch*, *Barbara Bland, Bradley Bloom, Ricky Carver, Rebecca Crimmins, Alta Dantzler, Alexis DeCapua, Ronald DeRoo, Kitty Dubin, Michael Duncan, Nina Flanigan, Shannon Ford, Mindy McCabe Grissom, Rebecca Happel, Terry Herald (sound technician/technical coordinator), Alissa Hetzner, Kelly Holst, Andrea Hughes, Kristen Larson, Alan MacNair, Marcia Mai, John Manfredi, Daniel Maslanka, Zeljko Milicevic, Judy Milner, Dennis North, Stephanie Pizzo, Elizabeth Rowin, Marcus Schoon, Mary Siciliano, Ivonne Tapia, Christina Tasco, Corbin Wagner, Tad Weed, Brent Wrobel (scene shop), Carol Yamasaki, Jeffrey Zook*

Applied music instructors:
Brass*: Kenneth Kroesche (low brass), Gordon Simmons (trumpet), Corbin Wagner (French horn)*
Woodwind: *Douglas Cornelsen (clarinet), Shannon Ford (saxophone), Rebecca Hammond (oboe), Marcus Schoon (bassoon), Sharon Sparrow (flute), George Stoffan (clarinet), Jeffrey Zook (flute)*
Strings: *Kerstin Allvin (harp), Miles Brown (double bass), Nadine DeLeury (cello), Maxim Janowsky (double bass), Elizabeth Rowin (violin)*
Percussion: *Sean Dobbins, Daniel Maslanka, Mark Stone*
Guitar: *John Hall, Bret Hoag*
Keyboard: *Rebecca Happel, Mary Siciliano, Frederic DeHaven, Tad Weed, Yin Zheng*
Voice: *Barbara Bland, Alta Dantzler, Drake Dantzler, Edith Diggory, Kelly Holst, Nadine Washington, John-Paul White*
Jazz: *Miles Brown (bass), Vincent Chandler (trombone), Sean Dobbins (percussion), Richard Fanning (trumpet), Mark Kieme (saxophone), Tad Weed (piano)*
World Music: *Sam Jeyasingam (Indian percussion), Mark Stone (world percussion), Shuishan Yu (Chinese guqin)*

Musical Theatre Coaches: *Alissa Hetzner, Jeremy Mossman*

Accompanists: *Minjung Kim, Angelina Pashmakova, Amanda Sabelhaus, Eun Young Yoo, Tatyana Zut, Stanley Zydek, Vladimir Kalmsky (dance), Michael McCabe (dance), Michael Shimmin (dance)*

Center for Applied Research in Musical Understanding*: Joseph Shively, director; Deborah Blair, 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:

- a Bachelor of Fine Arts in Dance;
- a Bachelor of Fine Arts in Theatre with a major in acting, musical theatre, or theater design and technology; and
- a 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.

Additional Services 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. Lessons are available on Oakland's main campus, on the Oakland Macomb campus, at the Detroit Symphony Orchestra's Pincus Music Education Center adjoining Orchestra Hall, and at various locations in the surrounding community.

Affiliated Professional Organizations

- Eisenhower Dance Ensemble
- Patterson Rhythm Pace
- Meadow Brook Theatre Ensemble

Partners in the Performing Arts

- Detroit Symphony Orchestra (DSO)
- Oakland University Cooperative Orchestral Library (OUCOL)
- Teaching for Music Understanding (TMU), in-service organization for music teachers
- Oakland Youth Orchestras (OYO)

Professional Internship Opportunities

- Oakland Symphony Orchestra
- Eisenhower Dance Ensemble 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

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.

Admission to the Music, Theatre and Dance degree programs

Admission to the music, theatre and dance 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 programs except the B.A. in Music, 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 department.

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 **music majors** or **auditioned music minors** must audition for the music faculty.
- 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 seeking admission to Oakland University as **dance majors** or **minors** must audition for the dance faculty. Auditions for dance minors are scheduled during fall semester.

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.

Major Standing

Once admitted to Oakland University in one of the music, theatre or dance degree programs, students wishing to pursue any Bachelor of Music (B.M.) degree, the Bachelor of Arts (B.A.) degree with majors in dance or theatre or Bachelor of Fine Arts in Theatre (B.F.A.) degree or Bachelor of Fine Arts in Dance (B.F.A.) degree must perform a major standing audition or interview to gain entrance into these programs.

Major standing is a comprehensive assessment of a student's work as an actor, as a dancer, as a theatre designer/technologist, or as a musician and will include:

- major standing audition or interview;
- successful completion of all freshman (for music, freshman *and* sophomore) level classes;
- successful completion of a portfolio where applicable.

To apply for major standing, students must:

1. complete a plan of study form in consultation with an adviser;
2. meet with a departmental adviser (for music and musical theatre, the applied teacher as well) to discuss the audition/interview;
3. submit an application for major standing (available in the department office, 207 Varner, or online at oakland.edu/mtd) to the department office;
4. perform a major standing audition and/or present a major standing portfolio in the area of proposed specialization.

Results of major standing

The three possible results of the major-standing audition or interview will be: acceptance, deferral or denial.

Acceptance means the student is officially accepted into the degree program. (A student may be accepted into the desired program or the faculty may recommend a more appropriate program.) This "acceptance to major standing" is considered a first step in achieving the degree and can be considered to be a vote of confidence by the faculty that the student is capable of meeting the requirements of the particular program. Judgment is based on many factors such as artistic merit and scholarship, using such evidence as grades in major courses, performance history, academic goals, progress toward proficiencies, and other departmental requirements.

Deferral means the student is encouraged to continue efforts toward the degree of choice, but questions still remain about the student's capacity to succeed in the program. Deferral often occurs when faculty members believe that more time will enable a fairer decision and that providing stronger direction will focus the student to meet his or her goals. When deferred, a student will be given directives explaining issues to address and will be given a suggested date for reapplying. No deferrals are granted once a student has completed 70 credits of study towards an intended degree (except for transfer students who enter Oakland with 60 or more credits). A student may be **deferred** only once; at the second major-standing audition or interview, **acceptance** and **denial** are the only options.

Denial means the student is not permitted to continue in the program. Often another program of study is recommended.

***Notification**: The music, theatre or dance program director will write a letter to the students notifying them of the audition/interview results. A student should discuss results with his or her adviser or applied instructor as soon as possible thereafter.*

Major standing in music

Music students who have passed the entrance audition may pursue a major in music, Bachelor of Arts degree program, (B.A.), without any further audition.

Students who aspire to pursue any of the majors in the Bachelor of Music (B.M.) degree program (music education and/or performance) are required to perform a major-standing audition by the end of their sophomore year (for music education majors, when enrolled in MUS 241).

Major standing is a comprehensive assessment of a student's work as a musician and pre-professional in music performance and/or music education, including:

- musicianship as evidenced through performance on the primary instrument or voice during the major standing audition;
- successful completion of all freshman and sophomore level classes;
- successful completion of a music education portfolio (for that major).

Transfer students who enter Oakland with 60 or more accepted transfer credits must apply for major standing during their first semester at OU. Acceptance to major standing may be granted after that first semester or the faculty may defer final action until the end of the student's second semester of study. Transfer students who are music education majors should apply during the semester in which they are enrolled for MUS 241.

Major standing assessment occurs at different times according to major.

- *Instrumental and piano majors* (including music education majors whose major instrument is an orchestral instrument or piano) complete the performance part of their major standing audition during their sophomore recital. Students may perform these recitals at any time during their sophomore year, fall or winter.
- *Voice majors* (including music education majors whose major instrument is voice) complete the performance part of their major standing audition in an extended jury during finals week of their fourth semester of study (end of the sophomore year).

To apply for major standing, students must:

1. complete a plan of study form in consultation with an adviser;
2. meet with a departmental adviser and your applied teacher to discuss the audition;
3. submit an application for major standing (available in the department office, 207 Varner, or online at oakland.edu/mtd) to the department office;
4. perform a major standing audition and/or present a major standing portfolio in the proposed area of specialization.

The three possible outcomes or results of the major standing audition are listed above in the general section about *major standing*. The music program director will write a letter to the students notifying them of the audition/interview results. A student should discuss results with his or her adviser and applied instructor (if applicable) as soon as possible.

Major standing in theatre

Students who aspire to pursue a major in theatre, Bachelor of Arts degree program (B.A.), or a major in acting, musical theatre, or theatre design and technology, Bachelor of Fine Arts degree program (B.F.A.), are required to perform a major standing audition or interview.

Major standing is a comprehensive assessment of a student's work as an actor, as a major in musical theatre, or as a theatre designer/technologist, and will include:

- Major standing audition or interview;
- Successful completion of all freshman level classes;
- Successful completion of a portfolio where applicable.

Students must apply for the audition/interview before the end of their freshman year. Transfer students must apply before the end of their first semester of study at OU. Theatre major standing auditions/interviews are held toward the end of the fall and winter semesters.

To apply for major standing, students must:

1. complete a plan of study form in consultation with an adviser;
2. meet with a departmental adviser (for musical theatre, the applied teacher as well) to discuss the audition/interview;
3. submit an application for major standing (available in the department office, 207 Varner, or online at oakland.edu/mtd) to the department office;
4. perform a major standing audition or present a major standing portfolio.

The three possible outcomes or results of the major standing audition are listed above in the general section about *major standing*. The theatre program director will write a letter to the students notifying them of the audition/interview results. A student should discuss results with his or her adviser and applied instructor as soon as possible thereafter.

Major standing in dance

Students who aspire to pursue a major in dance, the Bachelor of Arts degree program (B.A.), or a major in dance, Bachelor of Fine Arts (B.F.A.) degree program, are required to perform a major-standing audition. Dance major-standing auditions are held once each year, usually mid-semester.

Major standing is a comprehensive assessment of a student's work as a dancer, and will include:

- major standing audition;
- successful completion of all freshman level classes;

Students should apply during their second year in the major. Transfer students should apply to audition at the first scheduled audition after their arrival at OU. To apply for major standing, students must:

1. complete a plan of study form in consultation with an adviser;
2. meet with a departmental adviser to discuss the audition;

3. submit an application for major standing (available in the department office, 207 Varner, or online at oakland.edu/mtd) to the department office;
4. perform a major standing audition.

The three possible outcomes or results of the major standing audition are listed above in the general section about *major standing*. The dance program director will write a letter to the students notifying them of the audition/interview results. A student should discuss results with his or her adviser and applied instructor as soon as possible.

Ensemble auditions

Auditions for music ensembles, dance ensembles and theatre productions are held at the beginning of each semester. In addition, various performing groups announce auditions for particular projects throughout the year.

- Auditions for music ensembles are held during the first few days of each semester.
- Auditions for theatrical productions are held during the first week of classes each semester and at other times as announced throughout the year.
- Auditions for the student dance companies are held during the first week of classes each semester. Auditions for other dance performances are announced throughout the year. Ensembles are open to all students.

Degree Programs

Requirements for the liberal arts majors in dance or theatre, B.A. program

This degree is for students who wish a broad general education without a high degree of specialization in dance or theatre. 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 or Undergraduate Theatre Handbook, available on the department website, oakland.edu/mtd. 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		**Credits**
DAN 100-300	Ballet I-III (6 semesters or proficiency)	2-12
DAN 110-310	Modern Dance I-III (6 semesters or proficiency)	2-12
DAN 130	Conditioning for Dance	1
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; Revol/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
DAN 376, 475 or 498	Oakland Dance Theatre or Repertory Dance Company or Dance Apprenticeship	5
		48-68

Non-credit requirements:

Freshman Seminar
Major standing
Senior interview
Performance production requirement
Events attendance requirement

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

Theatre requirements		**Credits**
THA 110	Acting: The Instrument	2
THA 111	Acting: The Script	2
THA 120, or 121 or 123	Stagecraft, Costume Craft or Costume Construction	2
THA 124	Elements of Design	4
THA 301 and 302	Theatre History I and II	8
THA 330	Stage Management	2
ENG 105 or 306	Shakespeare or Drama	4
THA 320, 321, 322, 324 or 325	Design Course	4
Theatre capstone	THA 407, 420, 425, 482, 491, 495	4 minimum
Theatre electives, chosen in consultation with theatre adviser, (may include DAN technique, MUA/MUE voice and SA or AH classes		12
		44

Non-credit requirements:

Major standing
Senior interview
Performance production requirement
Events attendance requirement

Requirements for the Bachelor of Fine Arts Degree

The Bachelor of Fine Arts degree is intended for students who wish pre-professional and professional preparation in dance, musical theatre, acting, and theatre design and technology. Students must successfully complete the performance production requirement, the events attendance requirement and the senior interview as described in the department's Undergraduate Theatre Handbook or Undergraduate Dance Handbook available on the department website, oakland.edu/mtd. 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.

Requirements for the major in dance, B.F.A. program

Dance Requirements

DAN 100-400	Ballet I-IV (8 semesters or proficiency)	8-16
DAN 110-410	Modern Dance I-IV (8 semesters or proficiency)	8-16
DAN 130	Conditioning for Dance	1

DAN 170	Dance Improvisation/Choreography I	2
DAN 173	Dance History and Appreciation	4
DAN 295 or 395	Special Dance Techniques or Dance Workshop	6
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 376, 475 or 498	Oakland Dance Theatre, OU Repertory Dance Company or Dance Apprenticeship	7
DAN 380	Contemporary Dance History: Revol/Revisionism	4
DAN 425	Issues and Trends in Dance	2
DAN 428	Careers and Opportunities in Dance	2
DAN 441	Dance Pedagogy	4
DAN 470	Senior Recital/Seminar	4
MUT 109	Basic Musicianship for Dancers	2
THA 104	Acting for Non-Theatre Majors	2
		74-90

Non-credit requirements:

Freshman Seminar
Major standing
Senior interview
Performance production requirement
Events attendance requirement

Requirements for the major in acting, B.F.A. program

Acting Requirements		**Credits**
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 or 123	Costume Craft or Costume Construction	2
THA 124	Elements of Design	4
THA 217 and 218	Stage Voice I and II	4
THA 311	Stage Dialects	2
Movement courses drawn from: THA 211, 213, 214, 216, 316, or any DAN technique		8
THA 301 and 302	Theatre History I and II	8
THA 323	Stage Makeup	2
THA 330	Stage Management	2
THA 331	Stage Manager Project	2
THA 405 and 406	Directing I and II	4
THA 410	Acting: Styles	2
THA 412	Auditions	2
ENG 105 or 306	Shakespeare or Drama	4
Theatre capstone	THA 407, 420, 425, 482, 491, 495	4 minimum
Theatre Electives, chosen in consultation with theatre adviser (may include DAN technique, MUA/MUE voice classes)		12
		72

Non-credit requirements:

Major standing
Senior interview
Performance production requirement
Events attendance requirement

Requirements for the major in musical theatre, B.F.A. program

Music Theatre Requirements		**Credits**
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, 121 or 123	Stagecraft, Costume Craft or Costume Construction	2
THA 124	Elements of Design	4
THA 301 or 302	Theatre History I or II	4
THA 305	History of American Musical Theatre I	4
THA 323	Stage Makeup	2
THA 412	Auditions	2
THA 413	Musical Theatre Singing Styles	2
Theatre capstone:	THA 407, 420, 425, 482, 491, 495	4 minimum
MUA 160	Vocal Techniques	2
MUA 100-300	Applied Voice	10
MUT 105 and 106	Basic Musicianship for Musical Theatre I and II	4
THA 351	Musical Theatre Workshop	1
	Vocal ensemble drawn from MUE 301, 304, 315, 350; THA 351, 451	1
DAN	Dance Technique class (4 semesters)	8
DAN 373	Dance for Musical Theatre (2 semesters)	4
Theatre electives, chosen in consultation with theatre adviser (may include DAN technique, MUA/MUE voice classes)		6
		68

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		**Credits**
THA 104 or 110	Acting for Non-Theatre Majors or Acting: The Instrument	2
THA 120	Stagecraft	2
THA 121 or 123	Costume Craft or Costume Construction	2
THA 124	Elements of Design	4
THA 222	Drafting for the Theatre	2

THA 223	Drawing and Rendering for the Theatre	2
THA 301 and 302	Theatre History I and II	8
THA 320	Scenic Design	4
THA 321	Lighting Design	4
THA 322	Costume Design	4
Design Course:	THA 320, 321 or 322 (one must be repeated)	4
THA 324	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	Designers' Portfolio	2
Theatre capstone:	THA 407, 420, 425, 482, 491, 495	4 minimum
Theatre electives, chosen in consultation with theatre adviser (may include SA or AH classes)		12
		72

Non-credit requirements:

Major standing
Senior interview
Performance production requirement
Events attendance requirement

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/mtd 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. This degree program requires a minimum of 124 credits.

A. General Education Requirements	**Credits**
University general education requirements	40
MUS 131 satisfies the arts requirement.	
MUS 331, 332, or 430 counts as writing intensive in the major.	
MUS 430 counts as the capstone in the major.	
Modern foreign language course (115 or higher) counts toward foreign language requirement.	

B. Music Requirements		**Credits**
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to		16
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
Ensembles: MUE 301, 304, 319, 320, 329 or 331 (must enroll in ensemble that uses primary performance area every semester of major)		4
Applied music (single instrument/voice) to be chosen in consultation with adviser; must progress to and pass 300-level applied		12

Applied music elective (may include conducting, and keyboard techniques if applied area is not piano)	4
MUS 420 or 430 (capstone)	4
Any 400-level MUS course, or MUT 311, 312, 410 (must take at least one history and at least one theory)	8
Language: modern language course (115 or higher)	0-8
	44-68

Non-credit requirement:
Events attendance requirement

Requirements for the Bachelor of Music degree

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/mtd 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. Requirements are as follows:

Requirements for the major in Music Education, Bachelor of Music program (specialization in instrumental and general music)

Students majoring in music education must successfully complete 157-165 credits as distributed in their specific curriculum: 40 credits of general education, 20 credits of professional education requirements, and 97 credits in music requirements.

A. General Education Requirements	**Credits**
University general education requirements	40
MUS 131 satisfies the arts requirement.	
MUS 331, 332, 420, or 430 counts as writing intensive in the major.	
MUS 431 counts as the capstone in the major.	
Modern foreign language course (115 or higher) counts toward foreign language	

B. School of Education Requirements	
*RDG 338 or 538 Teaching Reading in the Content Areas	4
*SED 455 Internship in Secondary Education (5th year)	12
*SE 355 Identifying Learning and Behavior Differences in Students	4
	20

Michigan Test for Teacher Certification: Basic Skills, Music Education

C. Music Requirements	
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to:	16
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 selected from MUS 420, 430; MUT 311, 312, 410	4
MUA 161 Vocal Techniques for Instrumentalists	2
MUA 251-253, 255-258 Beginning instrument classes	7

MUA 1xx-4xx Applied major (normally an orchestral instrument; must include two semesters at the 400-level)	16
Keyboard techniques MUA 191, 192, 291 (according to proficiency)	0-6
Minimum of 2 credits selected from MUE 310, 315, 340, 341, 345, 346, 348, 365; MUT 314, 315	2
Ensemble: Band or Orchestra (must enroll every semester of major)	8
*MUS 140 Teaching and Learning Music	1
*MUS 240 Educational Psychology and Music Learning	3
*MUS 241 Elementary General Music Methods	3
*MUS 341 Secondary General Music Methods	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 395-396 Conducting I, II	4
**MUS 431 Philosophical and Historical Foundations of Music Education	4
Language: modern foreign language course, 115 or higher	4-8
	79-105

For students with piano as applied major, enrollment in MUA 160 or 161 is by placement audition. Students placing into MUA 160 take the following 8 credits sequence: MUA 160, 100 and two semesters of MUA 200. Students placing into MUA 161 take the following 8 credit sequence: MUS 161, 162 and two semesters of MUA 100.

Non-credit requirements:

Major standing
Events attendance requirement

**A minimum grade of 3.0 is required in all professional courses. Application for music education major standing takes place upon completion of MUS 241.*

Requirements for the major in Music Education, Bachelor of Music program (specialization in choral and general music)

Students majoring in music education must successfully complete 155-168 credits as distributed in their specific curriculum: 40 credits of general education, 20 credits of professional education requirements, and 91-99 credits in music requirements.

A. General Education Requirements	**Credits**
University general education requirements.	40
MUS 131 satisfies the arts requirement.	
MUS 331, 332, or 431 counts as writing intensive in the major.	
MUS 431 counts as the capstone in the major.	
Modern foreign language course (115 or higher) counts toward foreign language requirement.	

B. School of Education Requirements	
*RDG 338 Teaching Reading in the Content Areas	4
*SED 455 Internship in Secondary Education (5th year)	12
*SE 355 Identifying Learning and Behavior Differences in Students	4
	20

Michigan Test for Teacher Certification: Basic Skills, Music Education

C. Music Requirements

MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to	16
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 selected from MUS 420, 430; MUT 311, 312, 410	4

	Voice Major	Piano Major
MUA 160 Vocal Techniques	2	0
MUA 161-162 Vocal Techniques for Instrumentalists I, II	0	4
MUA 1xx-4xx Applied major, must include two semesters at the 400-level	14	16
MUS 211, 212 Diction for Singers	4	4
MUA 250 Instrumental Techniques for Choral Majors	2	2
MUA 191, 192, 291, 292 Keyboard Techniques (according to proficiency)	0-8	0
MUA 443, 444 Keyboard Techniques for Piano Majors I, II	0	4
MUA 391, 392 Accompanying for Non-pianists I, II	4	0
MUA 375 Accompanying for Piano Majors	0	2
Minimum of 2 credits selected from MUE 310, 315, 340, 341, 345, 346, 348, 365; MUT 314, 315	2	2
Ensembles: MUE 301, 304, 319, 320, 329 or 331 (must enroll in ensemble that uses primary performance area every semester of major)	8	8
*MUS 140 Teaching and Learning Music	1	1
*MUS 240 Educational Psychology and Music Learning	3	3
*MUS 241 Elementary General Music Methods	3	3
*MUS 341 Secondary General Music Methods	2	2
*MUS 410-411 Choral Methods I, II	2	4
*MUS 395-396 Conducting I, II	4	4
*MUS 398 Instrumental Methods for Choral Majors	1	1
*MUS 431 Philosophical and Historical Foundations of Music Education	4	4
Language: modern foreign language course, 115 or higher	4	4
	73-99	96

For students with piano as applied major, enrollment in MUA 160 or 161 is by placement audition. Students placing into MUA 160 take the following 8 credits sequence: MUA 160, 100 and two semesters of MUA 200. Students placing into MUA 161 take the following 8 credit sequence: MUS 161, 162 and two semesters of MUA 100.

Non-credit requirements:

Major standing
Events attendance requirement

**A minimum grade of 3.0 is required in all professional courses. Application for music education major standing takes place upon completion of MUS 241.*

Requirements for the major in Music Education and Performance, Bachelor of Music program (specialization in instrumental and general music)

Students majoring in music education/performance must successfully complete 170-188 credits as distributed in their specific curriculum: 40 credits of general education, 20 credits of professional education requirements, and 110-120 credits in music requirements.

A. General Education Requirements	**Credits**
University general education requirements	40
MUS 131 satisfies the arts requirement	
MUS 331, 332, 430 count as writing intensive in the major.	
MUA 499 counts for the capstone in the performance major.	
Modern foreign language course (115 or higher) counts toward foreign language requirement	

B. School of Education Requirements	
*RDG 338 or 538 Teaching Reading in the Content Areas	4
*SED 455 Internship in Secondary Education (5th year)	12
*SE 355 Identifying Learning and Behavior Differences in Students	4
	20

Michigan Test for Teacher Certification: Basic Skills, Music Education

C. Music Requirements	
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to	16
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 selected from MUS 420, 430; MUT 311, 312, 410	4
MUA 161 Vocal Techniques for Instrumentalists I	2
MUA 251-253, 255-258 Beginning instrument classes	7
Applied principal instrument: 100-200 level (2 credits per semester)	8
Applied principal instrument: 300-400 level (4 credits per semester)	12
MUA 191, 192, 291, 292 Keyboard Techniques (according to proficiency)	0-8
Minimum of 2 credits selected from MUE 310, 315, 340, 341, 345, 346, 348, 365; MUT 314, 315	1
Large ensembles: Band or Orchestra (must enroll every semester of major)	8
Small ensemble	4
MUS 463, 464 Instrumental Repertoire I and II	2
MUS 447 The Instrumental Teaching Studio	2
MUA 499 Senior Recital	6
*MUS 140 Teaching and Learning Music	1
*MUS 240 Educational Psychology and Music Learning	3
*MUS 241 Elementary General Music Methods	3
*MUS 341 Secondary General Music Methods	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 395, 396 Conducting I, II	4
MUS 431 Philosophical and Historical Foundations of Music Education	
Language: modern foreign language course (115 or higher) plus	4-8
	92-120

Non-credit requirements:
Major standing
Events attendance requirement

**A minimum grade of 3.0 is required in all professional courses. Application for music education major standing takes place upon completion of MUS 241.*

Requirements for the major in Music Education and Performance, Bachelor of Music program (specialization in choral and general music)

Students majoring in music education must successfully complete 165-174 credits as distributed in their specific curriculum: 40 credits of general education, 20 credits of professional education requirements, and 91-110 credits in music requirements.

A. General Education Requirements **Credits**

University general education requirements	40
MUS 131 satisfies the arts requirement	
MUS 331, 332, 431 count as writing intensive in the major	
MUA 499 counts as the capstone in the performance major	
Modern foreign language (115 or higher) counts toward foreign language requirement	

B. School of Education requirements:

*RDG 338 or 538 Teaching Reading in the Content Areas	4
*SED 455 Internship in Secondary Education (5th year)	12
*SE 355 Identifying Learning and Behavior Differences in Students	4
	20

Michigan Test for Teacher Certification: Basic Skills, Music Education

C. Music Requirements

MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement)	up to 16
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 selected from MUS 420, 430; MUT 311, 312, 410	4

	voice major	piano major
MUS 461-462 Vocal Repertoire I, II	4	0
MUS 455, 457 Piano Repertoire I, II	0	4
MUS 441, 442 Piano Pedagogy I, II	0	4
MUA 160 Vocal Techniques	2	0
MUA 161-162 Vocal Techniques for Instrumentalists I, II	0	4
MUA 100 or 200 (by audition)	0	4
MUS 211, 212 Diction for Singers	4	4

MUA 191, 192, 291, 292 Keyboard Techniques (according to proficiency)	0- 8	0
MUA 391, 392 Accompanying for Non-pianists I, II	4	0
MUA 250 Instrumental Techniques for Choral Majors	2	2
MUA 375 Accompanying for Piano Majors	0	2
MUA 1xx-4xx Applied major (must include one semester at the 400 level plus MUA 499)	18	20
MUA 499 Senior recital	6	6
MUA 443, 444 Keyboard Techniques for Piano Majors I, II	0	4
Ensembles: MUE 301, 304, 319, 320, 329, or 331 (must enroll in ensemble that uses primary performance area every semester of major)	8	8
Minimum of 2 credits selected from MUE 310, 315, 340, 341, 345, 346, 348, 365; MUT 314, 315	2	2
*MUS 140 Teaching and Learning Music	1	1
*MUS 240 Educational Psychology and Music Learning	3	3
*MUS 241 Elementary General Music Methods	3	3
*MUS 341 Secondary General Music Methods	2	2
*MUS 410-411 Choral Methods I, II 2 each	4	4
*MUS 395-396 Conducting I, II	4	4
*MUS 398 Instrumental Methods for Choral Majors	1	1
*MUS 431 Philosophical and Historical Foundations of Music Education	4	4
Language: modern foreign language course, 115 or higher	0-8	0-8
	91-109	98-110

For students with piano as applied major, enrollment in MUA 160 or 161 is by placement audition. Students placing into MUA 160 take the following 8 credits sequence: MUA 160, 100 and two semesters of MUA 200. Students placing into MUA 161 take the following 8-credit sequence: MUS 161, 162 and two semesters of MUA 100.

Non-credit requirements:

Events attendance requirement
Major standing

**A minimum grade of 3.0 is required in all professional courses. Application for music education major standing takes place upon completion of MUS 241.*

Requirements for the major in voice performance, Bachelor of Music program

This degree program requires a minimum of 124 credits.

Voice Performance Requirements	**Credits**
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to	16
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 selected from MUS 420, 430; MUT 311, 312, 410	4
MUS 395 Conducting	2
MUS 461-462 Vocal Repertoire I, II	4
MUA 160 Vocal Techniques	2
MUA 100 Applied voice (2 credits)	2

MUA 200 Applied voice (2 credits per semester)	4
MUA 300 Applied voice (4 credits per semester)	8
MUA 400 Applied voice (4 credits per semester)	4
MUS 211-212 Diction for Singers	4
Language: Italian, French or German course numbered 115 or higher.	0-8
MUA 191, 192, 291, 292 Keyboard Techniques (according to proficiency)	0-8
MUA 391, 392 Accompanying for Non-pianists, I, II	4
Ensemble: MUE 301 or 304 (must enroll every semester of major)	8
MUE 350 Opera Workshop	2
MUA 499 Senior Recital	6
	82 - 98

Non-credit requirements:
Major standing
Events attendance requirement

Requirements for the major in piano performance, Bachelor of Music program

This degree program requires a minimum of 124 credits.

Piano Performance Requirements	**Credits**
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/Aural Skills (or placement) up to	16
History or theory elective course selected from MUS 420, 430 MUT 311, 312, 410	4
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
MUA 375 Accompanying	2
MUS 441, 442 Piano Pedagogy I, II	4
MUS 455, 457 Piano Repertoire I, II	4
MUA 443, 444 Keyboard Skills for the Piano Major I, II	4
MUS 395-396 Conducting I, II	4
MUA 101-201 Applied Piano (2 credits per semester)	8
MUA 301 Applied Piano (4 credits per semester)	8
MUA 401 Applied Piano (4 credits per semester)	4
Ensembles: MUE 301, 304, 319, 320, 329 or 331 (must enroll in major ensemble every semester of major)	8
Language course numbered 115 or higher (German, French or Italian recommended)	4
MUA 499 Senior recital	6
	76-92

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

This degree program requires a minimum of 124 credits.

Instrumental Performance Requirements:	**Credits**
MUT 112/113, 114/115, 212/213, 214/215 Music Theory/ Aural skills (or placement) up to	16
History or theory elective course selected from MUS 420, 430, MUT 311, 312, 410	4
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
MUS 395-396 Conducting I, II	4
MUA 191, 192, 291, 292 Keyboard techniques (according to proficiency)	0-8
Applied principal instrument 100-200 level (2 credits per semester)	8
Applied principal instrument 300 level (4 credits per semester)	8
Applied principal instrument 400-level (1 semester)	4
Large ensembles: Band or Orchestra (must enroll every semester of major)	8
Small ensemble	4
MUS 447 The Instrumental Teaching Studio	2
MUS 463-464 Instrumental Repertoire I, II	2
Language course numbered 115 or higher (Italian, French or German recommended)	4
MUA 499 Senior Recital	6
	60-88

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)
- Paper-based TOEFL score of at least 520 (ESL coursework optional) or 500 (ESL coursework required). Internet-based score of at least 68 (ESL coursework optional) or 61-67 (ESL coursework required).
- 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)	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, 457	Piano Repertoire I, II	4
MUT 112, 114	Theory I, II	6
MUT 113, 115	Aural Skills I, II	2
Electives (conducting, music history, organ, harpsichord, etc.)		8
		48

Non-credit Requirement:

Two Recitals

Applied music juries

Music majors must perform for a jury in their major performing medium at the end of each fall and each winter semester of applied study; in some cases, a jury in a performance minor may also be required. Failure to complete this requirement will result in an "I" (Incomplete) grade. For specific jury requirements, students should consult the program director of their area of study.

Music Education Program (K-12)

The Music Education Program at Oakland University is an extended program of study leading to K-12 certification in choral, general and instrumental music. This program is offered in conjunction with the Secondary Teacher Education Program (STEP) in the School of Education and Human Services (SEHS). Students in this program must complete the requirements for a Bachelor of Music degree in music education (with emphasis in either choral and general music or instrumental and general music), which includes course work in the department and in SEHS. The program does not require a teaching minor. Students must consult with an adviser in the Department of Music, Theatre and Dance.

Once students are accepted for major standing in music education, participation in field placements is required during each semester of attendance. For students enrolled in music education courses, the placement will be connected to the methods courses. Juniors and seniors who are not enrolled in methods courses are expected to participate in field placements each semester until internship. A total of 160 hours of fieldwork is required before a student enters the internship semester. All field placements are arranged through the Office of Field Placements in the School of Education and Human Services, 385 Pawley Hall, (248) 370-3060.

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:

1. Elementary: DAN 170, 175, 173, 270, 330, 350, 376 or 475 and 425
   Secondary: DAN 170, 175, 173, 270, 330, 376 or 475, 425 and 441
2. 4 credits selected from DAN 300, 400; DAN 310, 410.

Requirements for the liberal arts minors in music

The department offers two tracks for students who wish to earn a minor in music: the Liberal Arts Minor and an Auditioned Minor.

Liberal Arts Minor in Music

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. 16 credits in music history and theory selected from: MUS 200, 236, 334, 336, 338; MUT 111.
2. 4 credits applied music selected from: MUA 150, 151, 152 or at the 100 level in the major instrument area, subject to acceptance by the applied instructor.
3. 4 credits of ensemble: any MUE course subject to ensemble audition.

Auditioned Minor in Music

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, 132 and one from MUS 200, 236, 331, 332, 334, 336, 338.
2. 8 credits of music theory: MUT sequence, level determined by placement exam.
3. 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 and then MUA 100 or MUA 161 and 162.
4. 4 credits of ensemble: any MUE course subject to ensemble audition.

Requirements for the minor in jazz studies

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.

Jazz Studies Minor

Students must complete a minimum of 21 credits as follows:

MUA 1xx, 2xx	Applied Lessons (Jazz)	4
MUE 340	Oakland University Jazz Band	2
MUE 341	Jazz Improvisation Combos	2
MUS 338	Jazz and Blues: American Music	4
MUS 406	Jazz Pedagogy	1
MUT 314 and 315	Jazz Theory and Improvisation I and II	4
MUT 416 and 417	Jazz Composing and Arranging I and II	4

Non-credit requirements: MUE 340 total of 4 semesters, minimum of 2 for credit
MUE 341 total of 4 semesters, minimum of 2 for credit

Requirements for the minor in world music

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.

World Music Minor

Students must complete a minimum of 23 credits as follows:

MUA 125, 225, 325, 425 or MUA 126, 226, 326, 426 Applied Lessons (World Music)	4
MUE 345, 346, 348, 349 or DAN 140 World Music Ensembles	4
MUS 132 Music of World Cultures	3
MUS 425 Critical Theory Methodologies in Global Arts	4
MUS 236, 336, or DAN 175 Elective	4
IS 410 or 490 Study Abroad/ Directed Research	4

Non-credit requirements: World Music Ensembles total of 8 semesters, minimum of 4 for credit

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: one acting course (THA 104 or 110), 2 credits; one production course (THA 120 or 121 or 123) 2 credits; one design course (THA 124) 4 credits; one theatre history course (THA 301, 302 or 305), 4 credits; and 8 additional credits from any theatre courses except THA 100.

Requirements for the liberal arts minor in dance

To earn a minor in dance, students must complete a minimum of 20 credits including 10 credits in DAN 170, 173 and 270; 4 credits from DAN 330 or 370; and 6 credits from any other DAN courses.

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*.

Many courses in the rubrics MUA, MUS and MUT are restricted to students who have declared an auditioned minor in music or who are officially majoring in one of the department's music curricula: the liberal arts major in music and the performing arts major, theatre arts in the Bachelor of Arts degree program or any of the majors in the Bachelor of Music degree program. To take a course that is restricted, students must perform a successful entrance audition. See "Auditions." Only the following MUA, MUS and MUT courses are open to non-majors: MUA 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 122, 123, 124, 125, 130, 131, 132, 133, 134, 135, 136 (all with permission of program director); MUA 150, 151, 152, 153; MUS 100, 200, 220, 225, 318, 334, 336, 338, 339, 353, 354; MUT 111, 260, 261, 314, 315, 416, 417.

All MUE courses are open to non-majors.

APPLIED MUSIC

"Applied music" refers to study of a given instrument or voice. There are two types of applied study—individual lessons and class group lessons. Non-majors may study applied music providing they meet minimum criteria established by the department and pass a placement audition.

INDIVIDUAL LESSONS

The courses below have four course-level designations. All students begin their enrollment in an applied specialty at the 100 level. Student advancement to the higher levels is determined by the results of

applied music juries. Two semesters at the 400 level are required in the major performing medium before graduation. The courses below have credit options of 1 or 2; or 1, 2 or 4. Four credits is the correct enrollment for applied study for students who are junior or senior status and otherwise have been accepted into the Bachelor of Music in performance programs. This 4-credit enrollment requires an hour lesson per week with an extensive demand for practice and literature study. For all other curricula, including minors and non-majors, the correct enrollment is 1 credit for a half-hour lesson per week and 2 credits for an hour lesson per week.

All courses of applied individual lessons may be repeated for credit. All students enrolled in individual lessons must also attend a weekly studio or master class.

All courses of applied individual lessons carry a prerequisite of *permission of the program coordinator*.

MUA 100 **Voice (1 or 2)**
Prerequisite: 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 122, 222, 322, 422 **Lute (1 or 2)**
MUA 123, 223, 323, 423 **Recorder (1 or 2)**

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 126, 226, 326, 426	**Guqin (Chinese) (1 or 2)**
MUA 130, 230, 330, 430	**Piano (jazz) (1 or 2)**
MUA 131, 231, 331, 431	**Guitar (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 (4)**
MUA 149, 249, 349, 449	**Applied Music (1 or 2)**

MUA 149-449 may be used to increase the number of private lessons in the student's major or minor performing medium and must be taken with one of the applied music courses above.

GROUP LESSONS

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: 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 pre-requisite to private voice study.
Prerequisite: open to music and music theatre majors only.

MUA 161 Vocal Techniques for Instrumentalists I (2)
Introduction to singing with emphasis on alignment, breath control, projection, basic anatomy of the voice, and voice health, including the speaking voice. Fall semester.

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: 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: open to music majors only.

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.
Prerequisite: MUA 191. Open to music majors only.

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 251 Methods of Teaching Beginning Strings (1)
Principles and practices of teaching beginning violin, viola, cello and bass students in school music programs. Includes basic string technique for teachers.

MUA 252 Methods of Teaching Experienced Strings (1)
Principles and practices of teaching experienced violin, viola, cello and bass students in school music programs. Includes more advanced string technique for teachers.

MUA 253 Methods of Teaching Flute and Single Reeds (1)
Principles and practices of teaching flute, clarinet and saxophone students in school music programs. Includes basic playing technique for teachers.

MUA 255 Methods of Teaching Double Reeds (1)
Principles and practices of teaching oboe and bassoon students in school music programs. Includes basic playing technique for teachers.

MUA 256 Methods of Teaching High Brass (1)
Principles and practices of teaching trumpet and French horn students in school music programs. Includes basic playing technique for teachers.

MUA 257 Methods of Teaching Low Brass (1)
Principles and practices of teaching trombone, euphonium and tuba students in school music programs. Includes basic playing technique for teachers.
Prerequisite: open to music majors only.

MUA 258 Methods of Teaching Percussion (1)
Principles and practices of teaching percussion students in school music programs. Includes basic playing technique for teachers.

MUA 259 Methods of Teaching Guitar (1)
Principles and practices of teaching guitar students in school music programs. Includes basic playing technique for teachers.
Prerequisite: open to music majors only. Students must own or have regular access to a playable guitar.

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: MUA 192.

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: MUA 291.

MUA 294 Jazz Piano Styles and Techniques (2)
Develop basic piano skills in the authentic jazz style from New Orleans to the present. Learn the fundamental chords piano scales, techniques and styles of jazz.
Prerequisite: MUA 292 or permission of instructor.

MUA 345 Vocal Coaching for Singers (2)
Studies to prepare the vocal student to perform in concert, recital, and musical theatre, including study of style, performing 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: MUA 100, 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: 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: MUA 292.

MUA 392 Accompanying for the Non-pianist II (2)
Continuation of MUA 391.
Prerequisite: 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: MUA 443.

MUA 495 Directed Applied Study (1 or 2)
Directed independent applied instrumental study.
Prerequisite: major standing, permission of department.

MUA 499 Senior Recital (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: at least one semester of 400-level applied study.

MUSIC ENSEMBLES
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 303 Men's Chorus (0 or 1)
Performance of tenor-bass choral literature of all styles and periods.

MUE 304 Oakland Chorale (0 or 1)
Performance of a wide range of choral chamber repertoire from Renaissance to the present.
Prerequisite: permission of instructor.

MUE 310 Vocal Jazz Improvisation Workshop (0-1)
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.

MUE 315 Oakland Jazz Singers (0 or 1)
Ensemble performance of complex vocal jazz works. Development of jazz style and blend, scatsinging, solo production and microphone technique.
Prerequisite: permission of instructor.

MUE 319 University Chamber Orchestra (0 or 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: 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: 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.
Prerequisite: permission of the instructor.

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.
Prerequisite: permission of instructor.

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 347 Rhythm and Movement Workshop (0 or 1)
Study of percussion as related to dance. Emphasis will be on the interrelated nature of these two art forms.
Prerequisite: permission of the instructor. MUE 345, 346 recommended.

MUE 348 World Percussion Ensemble (0 or 1)
Advanced study and performance of world percussion traditions.
Prerequisite: permission of the instructor. MUE 345 and 346 recommended.

MUE 349 Chinese Ensemble (0 or 1)
Study and performance of Chinese instrumental music.
Prerequisite: permission of the instructor.

MUE 350 Opera Workshop (0 or 1)
Study and experience in various forms of operatic music theatre.
Prerequisite: permission of instructor.

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: 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 Ensemble (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: 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: 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 or 1)
Performing ensemble of various instrumentations. A spectrum of appropriate music literature, medieval through contemporary.
Prerequisite: permission of instructor.

MUSIC HISTORY, LITERATURE, APPRECIATION AND EDUCATION

MUS 100 An Introduction to Music (4)
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 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.*
Prerequisite: MUT 112 or 114.

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.
Co-requisite: MUT 112 or 114.

MUS 140 Teaching and Learning Music (1)
Introduction to the teaching and learning of music in classroom and studio settings. Ten hours field observation required.

MUS 200 Cultural Foundations and Historical Development of Rock Music (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 205 Music, Technology, and Transformation (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 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: 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: MUS 100, 200, 225, 236, 334, 336 or MUS 338.

MUS 225 Song and 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 arts knowledge exploration area.*

MUS 231 Studies in Orchestral Music (1 or 2)
Seminars, independent study and performance of orchestral music, including study of performance practices, theory, history and chamber music of various periods. Offered summer session.

MUS 236 Music in African Culture (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 240 Educational Psychology and Music Learning (4)
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: MUS 131, 132, 140; MUT 114, 115.

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: MUS 240.

MUS 245 Introduction to Music Technology for Music Educators (1)
Basics of technology-based music making including tools for notation, recording, sequencing, and sharing music. Intended for undergraduate music education majors: choral, instrumental and general.
Prerequisite: MUS 241.

MUS 295 Independent Study (1, 2 or 4)
Normally for freshmen and sophomores.
Prerequisite: 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: MUS 131; MUT 114, 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: MUS 131; MUT 114, 115.

MUS 334 History of 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 336 Music of the Americas: African Origins (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 338 Jazz and Blues: American Music (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 339 What's On Your Playlist? Aesthetic Experiences in Music (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 knowledge applications integration area. Prerequisite for knowledge applications integration: completion of the general education requirement in the arts knowledge exploration area.*
Prerequisite: MUS 100 or 131 or 200 or 225 or 236 or 334 or 336 or 338.

MUS 341 Secondary General Music Methods (2)
Principles and practices of teaching music, based on experiences in a secondary 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. Three hours per week participation in on-site field observation and teaching required.
Prerequisite: MUS 241, 332; MUT 214, 215.

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: MUS 353.

MUS 370 Women in Music (4)
Focuses on the opportunities and roles of women in music from the Middle Ages to the present.
Identical with WGS 370.

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: MUT 214, 215.

MUS 396 Conducting II (2)
Continuation of MUS 395.
Prerequisite: 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: MUS 241, 332; MUT 214, 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: MUS 241, 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: MUS 241, 332; MUT 214, 215 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: MUS 395-396 and MUT 214, 215.

MUS 406 Jazz Pedagogy (1)
Preparation for teaching the fundamentals of jazz theory, jazz history, basic improvisation, and jazz ensemble rehearsal techniques.
Prerequisite: permission of instructor.

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: MUS 241, 332; MUT 214, 215 and major standing in music education.

MUS 410 Choral Methods I (2)
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: MUS 241, 332; MUT 214, 215 and major standing in music education.

MUS 411 Choral Methods II (2)
Continuation of 410. 30-hour field placement required. MUS 411 not open to students who have taken MUS 409.
Prerequisite: 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: MUS 332, MUT 214, MUT 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: MUS 132; one course from MUS 200, 236, 332, 334, or 336 or DAN 175; 2 credits of MUE 345, 346, 348 or 349.

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: MUS 331, 332; MUT 214, 215.

MUS 431 Historical and Philosophical Foundations of Music Education (4)
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: major standing in music education.

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: 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: 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: junior standing.

MUS 448 Group Piano Pedagogy (2)
Pedagogy for teaching group piano at all levels, preschool through adult, including college non-music majors and music majors. Explore texts, supplementary materials, electronic instruments. Learn teaching techniques and group dynamics. Lecture, observation, and supervised teaching.
Prerequisite: senior standing in music and MUS 441, 442.

MUS 450 Vocal Pedagogy (2)
Examination of the scientific and aesthetic principles of voice production, emphasizing both the physiological and psychological aspects of singing, with the ultimate goal of teaching others to sing. The diagnosis and correction of vocal faults working with a damaged voice will also be addressed.
Prerequisite: MUA 300.

MUS 455 Piano Repertoire I (2)
Survey of piano repertoire from the baroque to classic (ca. 1600-ca. 1820).
Prerequisite: instructor permission.

MUS 456 Survey and Study of 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.
Prerequisite: junior standing or permission of instructor.

MUS 457 Piano Repertoire II (2)
Survey of piano repertoire from the classic to the present (ca. 1820 to the present).
Prerequisite: MUA 455, MUS 455 or permission of instructor.

MUS 461-462 Vocal Repertoire I and II (2 each)
A survey of literature for the voice with emphasis on historical style. MUS 461 covers the Middle Ages through the 19th century, with emphasis on German song. MUS 462 continues through the 19th and 20th centuries, emphasizing French, British and American song.
Prerequisite: ML 211, 212 (may be taken concurrently), prerequisite for MUS 462: 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: junior standing.

MUS 464 Instrumental Repertoire II (1)
Continuation of MUS 463.
Prerequisite: MUA 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: 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: MUS 396 or permission of instructor.

MUS 491 Directed Research in Music History (1 or 2)
Directed individual reading and research for advanced music history majors.
Prerequisite: MUS 332.

MUS 494 Directed Research in Music Education (2 or 4)
Directed individual reading and research in music instruction.
Prerequisite: MUS 241, and either MUS 404 or 410.

MUS 495 Independent Study (1, 2 or 4)
Normally for juniors and seniors.
Prerequisite: permission of the music program.

MUS 497 Apprentice College Teaching (2)
Supervised participation in teaching an undergraduate course in music, together with discussion of teaching methods and objectives.
Prerequisite: permission of department.

MUS 499 Special Topics in Music (1, 2, 3 or 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: musical theatre majors only.

MUT 106 Basic Musicianship for Musical Theatre Majors II (2)
Continuation of MUT 105.
Prerequisite: 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: MUT 111 or placement exam.

MUT 113 Aural Skills I (1)
A laboratory experience to accompany MUT 112.
Prerequisite: MUT 111 or placement exam.

MUT 114 Music Theory II (3)
Continuation of MUT 112. To be taken with MUT 115.
Prerequisite: MUT 112.

MUT 115 Aural Skills II (1)
A laboratory experience to accompany MUT 114.
Prerequisite: MUT 112, 113 or placement exam.

MUT 212 Music Theory III (3)
Continuation of MUT 114.
Prerequisite: MUT 114.

MUT 213 Aural Skills III (1)
A laboratory experience to accompany MUT 212.
Prerequisite: MUT 114, 115 or placement exam.

MUT 214 Music Theory IV (3)
Continuation of MUT 213.
Prerequisite: MUT 212.

MUT 215 Aural Skills IV (1)
A laboratory experience to accompany MUT 214.
Prerequisite: MUT 212, 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, sequencers and computer software. Frequent composition projects will be assigned and performed in class.

MUT 261 Creative Composition II (2)
Continuation of MUT 260.
Prerequisite: 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: MUT 214, 215.

MUT 312 Counterpoint (4)
Study of the contrapuntal style of the 17th and 18th centuries; includes composition and analysis in the styles.
Prerequisite: 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.
Prerequisite: permission of instructor.

MUT 315 Jazz Theory and Improvisation II (2)
Continuation of MUT 314.
Prerequisite: MUT 314 or permission of instructor.

MUT 410 Twentieth Century Techniques (4)
Compositional practices in the 20th century; composition and analysis.
Prerequisite: 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: 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: 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: 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: MUT 416 or permission of instructor.

INTERDISCIPLINARY PERFORMING ARTS

MTD 250 The Arts in Society (4)
An introduction to issues and concepts through an exploration of the artistic endeavors in specific cultures and historical time periods. A comprehensive approach to the arts will be involved in the study of relationships among the arts forms, with special emphasis on music, dance and drama.

MTD 301 Performing Arts Experiences for Children (3)
An 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: admission to elementary education major, FE 310, FE 315, EED 354, EED 420.

THEATRE

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 attend selected plays. *Satisfies the university general education requirement in the arts knowledge exploration area.*

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: theatre major or permission of instructor.

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: THA 110; or THA 104 and instructor permission.

THA 120 Stagecraft (2)
Survey of techniques of scenery construction and stage lighting, including proper use of tools and hardware in these areas.
Prerequisite: theatre major 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: 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: theatre major or instructor permission.

THA 124 Elements of Design (4)
Introduction to basic principles of design and their application to the art of theatre.
Prerequisite: theatre major or permission of instructor.

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: 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: 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: 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: preference for openings in this course is given to theatre majors and minors.

THA 217 Stage Voice I (2)
Development of actor's understanding and command of voice and speech for the stage. Preference for openings in this course is given to theatre majors and minors.
Prerequisite: THA 110 or permission of instructor.

THA 218 Stage Voice II (2)
Continuation of THA 217.
Prerequisite: THA 217.

THA 220 Theatre Ensemble (0 or 2)
Participation in a student production under faculty supervision. A minimum of 60 hours. Credit is available for on-stage and backstage work. May be repeated for a total of 8 credits.

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.
Prerequisite or Corequisite: THA 120 or 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.
Prerequisite or Corequisite: THA 120 or 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 the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite: 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 the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite: sophomore standing.

THA 305 History of American Musical Theatre (4)
Focusing 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.
Prerequisites: 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 realistic repertoire. May be repeated once for credit.
Prerequisite: 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: THA 111.

THA 312 Acting: Shakespeare (2)
Introduction to understanding and speaking Shakespeare's language. Scene and monologue work for selected plays.
Prerequisite: THA 310 and major standing.

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 students' level of proficiency and accomplishment. Course may be repeated for credit.
Prerequisite: 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: THA 216.

THA 320 Scenic Design (4)
A study of the process of designing scenery for the stage, including conceptualization, drafting and rendering. May be repeated once for credit.
Prerequisite: THA 120, 124. THA 222, 223 strongly recommended.

THA 321 Lighting Design (4)
A 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: THA 120, 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: THA 121, 124. THA 222, 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: theatre major or minor or permission of the 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: 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: 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: THA 120.

THA 327 Scene Painting (2)
Techniques for painting scenery for the theatre including material, layout, faux finishes, and the organizational artistic skills required for the scenic artist.
Prerequisite: THA 120.

THA 330 Stage Management (2)
Study of the duties and the organizational, communication and leadership skills required of the theatrical stage manager.
Prerequisite: THA 104 or 110 and THA 120.

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: THA 330.

THA 340 Playwriting (4)
Creative writing for the theatre, emphasizing fundamentals of scene, character and dialogue development. Identical with ENG 308.
Prerequisite: 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: 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: THA 104 or THA 110 and THA 120 or THA 121 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: 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.*

THA 410 Acting: Styles (2)
Focuses on the requirements of various acting and period styles. Continued work on vocal and physical technique. Topics may vary. May be repeated once for credit.
Prerequisite: THA 310.

THA 412 Auditions (2)
Preparation for theatrical and commercial auditions. Includes selection and preparation of monologues.
Prerequisite: THA 312 or permission of instructor.

THA 413 Musical Theatre Singing Styles (2)
Focus on the requirements of various singing styles and composers, including operetta, Sondheim, classical musical theatre, Webber, 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: THA 305 and junior standing.

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 once for credit. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: junior 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: THA 320, 321 or 322.

THA 422 Designers' Portfolio (2)
Advanced designers prepare portfolio and resumes for entry into the professional field of theatre production.
Prerequisite: junior standing. THA 320, 321 or 322.

THA 423 Advanced Stagecraft (2)
Advanced techniques of scenery construction including welding, rigging, sound and special effects.
Prerequisite: 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: THA 340 or ENG 308; permission of instructor. English and theatre majors and minors.

THA 451 Meadow Brook Estate (0 or 1)
Musical theatre ensemble presenting staged and choreographed shows. Rigorous performance schedule in professional situations. Auditions are held prior to the beginning of the semester. May be repeated for credit.
Prerequisite: instructor permission.

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 for a total of eight credits.
Prerequisite: 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 for a total of 8 credits.
Prerequisite: will vary with topic; permission of instructor.

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 for a total of 8 credits.
Prerequisite: 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: audition/interview required, conducted early winter semester prior. Consult Theatre Program Director.

THA 490 Independent Study (1, 2, 3 or 4)
Normally for juniors and seniors.
Prerequisite: 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.*

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.
Prerequisite: permission of instructor, by audition. *Satisfies the university general education requirement for the capstone experience.*

DANCE

DAN 100 Ballet (2)
Technique of classical ballet. May be repeated for up to 16 credits.

DAN 103 Fundamentals of Ballet Technique (2)
Fundamental techniques of classical ballet. Designed for students with little or no ballet training. May be repeated for up to 8 credits.

DAN 110 Modern Dance (2)
Technique of modern dance. May be repeated for up to 16 credits.

DAN 113 Fundamentals of Modern Techniques (2)
Fundamental techniques of modern dance. Designed for students with little or no dance training. May be repeated for up to 8 credits.

DAN 120 Jazz Dance (2)
Technique of jazz dance. May be repeated for up to 16 credits.

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 or 1)
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: instructor permission.

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 (2)
Technique of tap dance. May be repeated for up to 16 credits.

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)
A 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. May be repeated for up to 16 credits.
Prerequisite: DAN 100.

DAN 210 Modern Dance (2)
Technique of modern dance. May be repeated for up to 16 credits.
Prerequisite: DAN 110.

DAN 220 Jazz Dance (2)
Technique of jazz dance. May be repeated for up to 16 credits.
Prerequisite: 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: 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 for up to 16 credits.
Prerequisite: DAN 160 or permission of the instructor.

DAN 270 Choreography II (4)
Theory of dance composition through reading, discussion, observation and experimentation. Lab required.
Prerequisite: DAN 170.

DAN 295 Special Studies in Modern Dance Technique (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, 2, 3 or 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. Grade S/U. May be repeated for up to 16 credits.

DAN 300 Ballet (2)
Technique of classical ballet. May be repeated for up to 16 credits.
Prerequisite: DAN 200; major standing or permission of the instructor.

DAN 310 Modern Dance (2)
Technique of modern dance. May be repeated for up to 16 credits.
Prerequisite: DAN 210; major standing or permission of the instructor.

DAN 320 Jazz Dance (2)
Technique of jazz dance. May be repeated for up to 16 credits.
Prerequisite: DAN 220 or permission of the 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: 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: major standing in dance, dance education minor, or permission of the instructor.

DAN 351 Children's Dance Theatre: Rehearsal and Performance (4)
Choreography, rehearsal and performance of a dance program for children that tours local elementary schools.
Prerequisite: 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: DAN 270, major standing in dance or permission of the instructor.

DAN 373 Dance for Musical Theatre (2)
An applied dance course that covers the techniques and styles of dance for musical theatre prevalent from the 1920s until the present day. May be repeated for up to 8 credits.
Prerequisite: one dance technique course.

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 for up to 8 credits. Graded S/U.
Prerequisite: audition and permission of instructor.

DAN 380 Contemporary Dance History: Revolution and Revisionism (4)
Comprehensive dance history course 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: DAN 173, major standing in dance or permission of the instructor.

DAN 395 Advanced Studies in Modern Dance Technique (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: admission into the dance program or instructor permission.

DAN 400 Ballet (2)
Technique of classical ballet. May be repeated for up to 16 credits.
Prerequisite: DAN 300; major standing or permission of the instructor.

DAN 402 Advanced Ballet: Partnering (2)
May be repeated for up to 8 credits.

DAN 404 Advanced Ballet: Pointe (1)
May be repeated for up to 8 credits.

DAN 410 Modern Dance (2)
Technique of modern dance. May be repeated for up to 16 credits.
Prerequisite: DAN 310; major standing or permission of the instructor.

DAN 420 Jazz Dance (2)
Technique of jazz dance. May be repeated for up to 16 credits.
Prerequisite: DAN 320, or permission of the instructor.

DAN 423 Historical Dance (2)
The study of Baroque, Renaissance and 19th century social dance styles. Course includes practical, theoretical and historical background.

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: major standing in dance, dance education minor, 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: permission of instructor.

DAN 430 Special Topics (1, 2 or 4)
Group study of current topics in dance. May be repeated for up 16 credits.
Prerequisite: 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: DAN 300 and 310.

DAN 470 Senior Recital (4)
A dance program choreographed and performed by a student in the final year of dance study. *Satisfies the university requirement for the capstone experience.*
Prerequisite: audition and permission of instructor.

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: audition and permission of instructor.

DAN 490 Independent Study (1, 2 or 4)
Permission of instructor. Graded S/U. May be repeated for additional credit.

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: 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: instructor permission.

DEPARTMENT OF PHILOSOPHY

341 O'DOWD HALL (248) 370-3390
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Chairperson: *John F. Halpin*

Professors emeriti: *David C. Bricker, Richard W. Brooks, Richard J. Burke*

Associate professors: *Paul R. Graves, John F. Halpin, Mark A. Rigstad, Phyllis A. Rooney, Elysa R. White*

Assistant professors: *Eric La Rock, Fritz McDonald, Mark Navin*

Instructor*: Patricia Trentacoste*

Associated faculty: *Professor Ronald M. Swartz (Education and Philosophy)*

Special lecturers: *John Burn, Tristin Hassell, Nancy McClellan, Grant Yocom*

Chief adviser: *Fritz McDonald*

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, a modified major in philosophy with an international studies minor (South Asian studies program) or a concentration in linguistics or religious studies, 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 40 credits in philosophy, including:

1. One semester of logic (PHL 102, 107 or 370; PHL 107 is strongly recommended, especially for those considering graduate work in philosophy).
2. One semester of ethics (PHL 103, 313 or 314).
3. Two semesters in history of Western philosophy (PHL 204 and 206).
4. One semester of recent American philosophy (PHL 308, 329, 333, 340, 437, or 475).
5. At least 20 credits in PHL courses numbered 300 or above.
6. PHL 465 satisfies the university general education requirement for the capstone course in the major.

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 course work.

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 3.50 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 paper written in PHL 395, but two or three papers written in other philosophy courses will be acceptable. 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 a modified major in philosophy with a concentration in linguistics, B.A. program

Students with this modified major in philosophy must have a minimum of 24 credits in philosophy, including PHL 475, and 20 credits in linguistics:

1. One semester of logic (PHL 102, 107 or 370).
2. One semester of ethics (PHL 103, 313 or 314).
3. One semester of metaphysics/epistemology: (PHL 204, 205, 206, 308, 329, 333, 340, 401 or 437).
4. 20 credits in LIN or ALS courses, including LIN 201, 303, 304 and either 403 or 404.
5. LIN 307 or 407.

Requirements for a modified major in philosophy with a minor in South Asian studies or a concentration in religious studies, B.A. program

Students with either of these modified majors in philosophy must have a minimum of 24 credits in philosophy including 12 credits in courses numbered 300 or above.

1. One semester of logic (PHL 102, 107 or 370).
2. One semester of ethics (PHL 103, 313 or 314).
3. One semester of metaphysics/epistemology (PHL 204, 205, 206, 308, 329, 333, 340, 401 or 437).

For a modified major in philosophy with a minor in South Asian studies, students should see the *Center for International Studies* section of the catalog for the minor requirements. For a modified major in philosophy with a concentration in religious studies, students must include PHL 325 and are encouraged to take PHL 350. They should also consult *Other Academic Options, Concentration in Religious Studies* for the concentration requirements.

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 (PHL 102, 107 or 370).
2. One semester of ethics (PHL 103, 313 or 314).

3. One semester of metaphysics/epistemology: (PHL 204, 205, 206, 308, 329, 333, 340, 401, 437 or 475).
4. At least 8 credits in courses numbered 300 or above.

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*.

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 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 204 Ancient Greek Philosophy (4)
The 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 a writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of the university writing foundation requirement.*
Prerequisite: PHL 101 or 103.

PHL 205 Medieval Philosophy (4)
The development of Christian philosophical thought in Europe, from the first to the 15th centuries. Emphasis on Augustine and Thomas Aquinas. *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: PHL 101 or 103.

PHL 206 Early Modern Philosophy (4)
The 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: PHL 101 or 103.

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: 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: one course in philosophy or 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: one philosophy course.

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: 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: one philosophy course.

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: one course in philosophy or political science, PHL 103 recommended.

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: one philosophy course, or a course in art, music or literature.

PHL 313 Social Good and Respect in Moral 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: junior standing. PHL 103 strongly recommended.

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?
Prerequisite: PHL 103 or 102 or 101 strongly recommended.

PHL 316 Ethics in Business (4)
Review of basic ethical theory, and application to typical moral problems in business practices and institutions.
Prerequisite: 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: 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: junior standing, PHL 103 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: one course in philosophy or political science, PHL 103 recommended.

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: one philosophy course or junior standing, PHL 103 strongly recommended.

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: one philosophy course or junior standing.

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: 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: 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: 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: 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: one course in philosophy or consent 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.
Prerequisite: one philosophy course. (PHL 204 recommended).

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?
Prerequisite: one course in philosophy (PHL 107 recommended) or consent 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: one philosophy course or junior standing.

PHL 352 Indian Philosophy (4)
The presuppositions and doctrines of India's major philosophic systems. Realistic, idealistic, pluralistic, dualistic and monistic systems will be considered, with some reference to contemporary developments.
Prerequisite: PHL 350 or IS 240.

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: 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: 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: 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: 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: one philosophy or one psychology course, junior standing.

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: 28 credits in philosophy or permission of the 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.
Prerequisite: junior standing, LIN 207 or one course in logic (PHL 107 strongly recommended).

PHL 497 Apprentice College Teaching (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 SCIENCE AND ENGINEERING BUILDING (248) 370-3416
Fax: (248) 370-3408

Chairperson: *Andrei Slavin*

Professors emeriti: *Abraham R. Liboff, John M. McKinley, Ralph C. Mobley, Norman Tepley, Paul A. Tipler, W. D. Wallace, Robert M. Williamson*

Distinguished professors: *Michael Chopp, Gopalan Srinivasan*

Professors: *Ken Elder*, *David Garfinkle, Bradley J. Roth, Andrei Slavin, Uma Devi Venkateswaran, Yang Xia*

Associate professors: *Kapila Clara Castoldi, George Martins*, *Alberto Rojo*

Assistant professor: *Evgeniy Khain*

Visiting assistant professor: *Eugene Surdutovich*

Research associate professor: *Vasyl Tyberkevych*

Adjunct professors: *Carl Bleil, Stephen L. Brown, Howard J. Dworkin, Grant R. Gerhart, Jae Ho Kim, Harold Portnoy, Hani Sabbah, Srinivasan Venkatesan, Di Yan*

Adjunct associate professors: *Constantine Demetropoulos, James R. Ewing, Robert L. Hammond, Quan Jiang, Robert A. Knight, Jian Liang, Patrick N. McDermott, S. David Nathanson*

Adjunct assistant professors: *Susan M. Bowyer, Dan Ionascu, Kenneth Jenrow, Martha Matuszak, Tiezhi Zhang, Zheng-Gang Zhang*

Adjunct instructor: *Ray A. Carlson*

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.

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. PHY 151, 152, 158, 371, 317.
2. An additional 16 credits in physics, with at least 12 credits in courses numbered above 200.
3. MTH 154, 155, 254.
4. Eight additional credits in chemistry, mathematics and physics, but not CHM 300.
5. PHY 400 or PHY 490, 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, 152, 158, 317, 351, 371).
2. A minimum of 22 elective credits in physics at or above the 200 level, including at least 2 credits of laboratory course work. PHY 361 and 381 are strongly recommended for students planning graduate work in physics.
3. MTH 154, 155, 254 and either MTH 275 (or 256) or APM 255 (or 257).
4. 10 credits of chemistry at a level not below CHM 157, but not CHM 300.
5. PHY 400 or PHY 490, either of which fulfills the university general education requirement for the capstone course in the major.

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. PHY 151, 152, 158, 317, 318, 325, 326, 351, 371, 372 and 381.
2. MTH 154, 155, 254, STA 226 and APM 255 (or 257).
3. CHM 157 and 158 plus 4 additional credits at a level not below CHM 157 (CHM 201 may be taken for credit, but not CHM 300).
4. BIO 111, 205 and 207.
5. PHY 400 or PHY 490, 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. PHY 151, 152, 158, 317 and 371 (16 credits).
2. 12 credits chosen from: PHY 325, 331, 341, 351, 361, 366, 372, 381, 421.
3. Four laboratory credits chosen from: PHY 306, 318, 347, 418, 487, 490.
4. MTH 154, 155 and APM 255 (or 257) (11-12 credits).
5. CHM 157 and 158 (10 credits).
6. Four credits of biology at or above the level of BIO 111, but not BIO 300.
7. Four credits of earth science: PHY 106, 307 or 308.
8. Four credits relating science, technology, and society: AN 300; ENV 308, 312; PHY 115, 127.
9. PHY 400 or PHY 490, either of which fulfills the university general education requirement for the capstone course in the major.

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, IST 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 also have taken the following courses:

BIO 111, BIO 113, CHM 157, CHM 158, CHM 234, ENV 308, PHY 101/151, PHY 102/152, PHY 104, GEO 106/PHY 106.

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.

Requirements for the major in engineering physics, B.S. program

Coordinators: Andrei Slavin (Physics), Hoda Abdel-Aty-Zohdy (Engineering)

The program in engineering physics is offered jointly by the College of Arts and Sciences and the School of Engineering and Computer Science. 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. 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:

1. MTH 154, 155, 254 and APM 255;
2. CHM 143;
3. PHY 151, 152, 158, 317, 351, 361 and 371, plus one of the following: PHY 331, 366, 381 or 472;
4. EGR 120, 141, 240, 250, 260, 280; ECE 276, 327; PHY 490 or EGR 491.
5. Professional options. (The following two options are offered as typical. Select 12 credits from one of these. Students with different interests can construct different options in consultation with the program coordinators.)

   Solid state physics and technology option

   ECE 384 and PHY 472, plus one of the following design electives: ECE 378, 426, 437, 470, 487.

   Applied mechanics option

   PHY 366, ME 322 or 361, plus one of the following design electives: ME 456, 461, 482, 486, 487.

Technical electives

6. Choose 6-8 credits from MTH 275; APM 263; PHY 318, 331, 366, 372, 381, 418, 472, 482; ECE 352, 378, 384; ME 331, 361 or any 400-level ECE, ME or ISE course.
7. Free electives (6-8 credits), which may be used to satisfy writing requirement. For limitations on free electives see the School of Engineering and Computer Science policy on free electives.
8. Average grade of at least 2.0 in 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. Note: either PHY 400 or 490 satisfies the university general education requirement for the capstone course in the major.

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 in physics, including PHY 101-102 or 151-152, 158 and at least 8 credits in physics courses numbered 300 or above.

Requirements for the secondary teaching minor in physics

To earn a secondary teaching minor in physics, students must complete PHY 101-102 or 151-152, 158 and 10 credits in physics courses numbered 300 or above, including PHY 371. Non-science majors i.e., other than biology, chemistry and physics majors, must complete an additional 4 credits in science for a total of 24 credits. In addition SED 427, Methods of Teaching Secondary Students, is required.

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*.

PHY 101 General Physics I (4)
Mechanics, heat, mechanical waves and sound. Calculus is not required. Students must attend three general education laboratory sessions during the semester. *Satisfies the university general education requirement in the natural science and technology knowledge exploration area.*
Prerequisite: recommended MTH 062 or equivalent.

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: recommended PHY 101.

Each of the following courses is designed for non-science majors and minors:

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 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: 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 127 Human Aspects of Physical Science (4)
Primarily for the student wishing to explore the interaction of the physical and social sciences. Format varies to reflect the impact of physics on contemporary life, particularly on politics, economics and behavior, as well as environment and well-being.
Prerequisite: high school algebra.

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: high school algebra.

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: MTH 062 with a grade of 2.0 or higher or placement in a higher level mathematics course.

The following courses are designed primarily for the physics major and for majors in the other sciences and engineering:

PHY 151 Introductory Physics I (4)
Classical mechanics and thermodynamics. For science, mathematics and engineering students. Students must attend three general education laboratory sessions during the semester. *Satisfies the university general education requirement in the natural science and technology knowledge exploration area.*
Prerequisite: recommended MTH 154.

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 formal reasoning knowledge foundation area or the natural science and technology knowledge exploration area.*
Prerequisite: recommended PHY 151. Corequisite: recommended MTH 155.

PHY 158 General Physics Laboratory (2)
Elementary experiments in mechanics, heat, sound, electricity and optics.
Prerequisite: recommended PHY 101 or 151. Co-requisite: recommended PHY 102 or PHY 152.

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: 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: recommended PHY 102 or 152, and MTH 254.

PHY 305 Astrophysics II (4)
Continuation of PHY 304.
Prerequisite: recommended PHY 304.

PHY 306 Observational Astronomy (2)
Lecture/laboratory course providing basic training in astronomical techniques.
Prerequisite: 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: recommended PHY 102 or 152, PHY 106 and MTH 254.

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: recommended PHY 102 or 152, and MTH 254.

PHY 317 Modern Physics Laboratory (2)
Optics and atomic physics experiments.
Prerequisite: recommended PHY 158. Corequisite: recommended PHY 371.

PHY 318 Nuclear Physics Laboratory (2)
Nuclear physics experiments.
Prerequisite: recommended PHY 158. Corequisite: recommended PHY 372.

PHY 325 Biological Physics (4)
Applications of physics to biology, including biomechanics, fluid dynamics, statistical mechanics, diffusion, bioelectricity, biomagnetism, feedback and control.
Prerequisite: recommended PHY 102 or 152, and MTH 155.

PHY 326 Medical Physics (4)
Applications of physics to medicine, including signal analysis, imaging, x-rays, nuclear medicine and magnetic resonance imaging.
Prerequisite: recommended PHY 102 or 152, and MTH 155.

PHY 331 Optics (4)
Geometrical optics, optical instruments, wave theory of reflection, refraction, interference, diffraction and polarization of light.
Prerequisite: recommended PHY 102 or 152, and MTH 155. Corequisite: recommended MTH 254.

PHY 341 Electronics (4)
Electronics for scientists, circuit theory, transistors, power supplies, linear amplifiers, oscillators.
Prerequisite: recommended PHY 158 and MTH 155, and either PHY 102 or 152. Concurrent enrollment in PHY 347.

PHY 347 Electronics Laboratory (2)
Circuits and electronics experiments.
Corequisite: 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: 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: recommended PHY 102 or 152, and MTH 254.

PHY 366 Vibrations and Waves (4)
Oscillations; mechanical waves in one, two and three dimensions; sound.
Prerequisite: recommended PHY 152, MTH 155.

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: recommended PHY 102 or 152, and MTH 155; concurrent enrollment in PHY 317.

PHY 372 Nuclear Physics (4)
Radioactivity, interaction of radiations with matter, accelerators, nuclear reactions, fission and fusion.
Prerequisite: recommended PHY 102 or 152, and MTH 155; concurrent enrollment in PHY 318.

PHY 381 Electricity and Magnetism I (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: 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: permission of instructor.

PHY 405 Special Topics (2, 4 or 6)
Prerequisite: 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: 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: recommended PHY 361 and APM 255 (or 257).

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: recommended PHY 331 or PHY 371 or permission of instructor.

PHY 445 Medical Instrumentation (2)
Detailed examination of the scientific instrumentation used in modern medical diagnostic and therapeutic practice.
Prerequisite: recommended approval of department, PHY 371, 381 and 347.

PHY 470 Relativity (4)
Special relativity in mechanics and electromagnetism. Introduction to general relativity and gravitation.
Prerequisite: 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: 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: 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: PHY 381.

PHY 490 Independent Research (3-6)
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: junior standing and written agreement with a physics faculty member.

DEPARTMENT OF POLITICAL SCIENCE

418 VARNER HALL (248) 370-2352
Fax: (248) 370-4299

Chairperson: *David A. Dulio*

Distinguished professor emeritus: *Sheldon Appleton*

Professors emeriti: *Thomas W. Casstevens, Robert J. Goldstein, Edward J. Heubel, Vincent B. Khapoya, William A. Macauley, Roger H. Marz, James R. Ozinga*

Professors: *John S. Klemanski, Paul J. Kubicek*

Associate professors: *David A. Dulio, Diane Hartmus, Roger Larocca, Emmett Lombard, C. Michelle Piskulich, J. Patrick Piskulich, Peter F. Trumbore, Martha T. Zingo*

Assistant professors: *Douglas Carr, Matthew Fails, David Kasdan, Laura Landolt, Terri L. Towner, Julie Walters, Byungwon Woo*

Adjunct assistant professors: *Brian Arbeiter, Joseph Harder, Ram Kishan, John Lees, Jim Marcinkowski, Gary Petroni, Joe Rozell, John Szerlag*

Special instructor: *Alan David Epstein*

Internship directors: *Douglas Carr (Public Administration), Roger Larocca (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, law, political behavior, administration, international politics, foreign governments, and theories and philosophies of government are among the many topics covered in these courses. The general educational aim is to increase students' awareness and understanding of the broad realm of politics and government. Many students electing this major wish to prepare for careers in public service, law, practical politics, or the teaching of government and social studies.

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 public affairs 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 and history. 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*). The Master of Public Administration degree is accredited by the Commission of Peer Review and Accreditation and 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 40 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 (*16 credits*)
PS 100 Introduction to American Politics
PS 114 Issues in World Politics *or* PS 131 Comparative Politics
PS 303 Research Methods and Statistics (*should be taken in sophomore year*)
One capstone course selected from
PS 470 Seminar in American Politics
PS 472 Seminar in International Relations
PS 476 Seminar in the Comparative Study of Political Systems

B. At least one 4-credit course selected from each of the three fields of political science (*12 credits*)
1. American politics:
PS 300 American Political Culture
PS 301 American Presidency and the Executive Process
PS 302 Congress and the Legislative Process
PS 305 Local Government and Politics
PS 306 Special Topics in American Politics
PS 307 State Politics
PS 309 Politics Through Film
PS 311 Women and Politics
PS 312 The Politics of Race and Ethnicity
PS 322 Political Parties and Interest Groups
PS 324 Elections and Voting Behavior
PS 325 Public Opinion
PS 326 Political Campaigns
PS 327 Media and Politics
PS 340 U.S. Constitutional Law
PS 341 Civil Rights and Civil Liberties
PS 342 The Judicial Process
PS 343 Women and the Supreme Court
PS 350 Public Administration
PS 353 American Public Policy
PS 478 Seminar in Public Law
PS 484 Seminar in Public Policy

2. Comparative and international politics:
PS 308 Special Topics in Comparative Politics and International Relations
PS 314 International Politics: Theory and Practice
PS 315 United States Foreign Policy
PS 317 International Politics of Human Rights
PS 328 Chinese Politics and Foreign Policy
PS 329 European Political Systems
PS 330 Politics of Development
PS 331 Politics in Canada and the Commonwealth
PS 332 Politics of the Middle East and North Africa
PS 333 African Politics
PS 334 Political Systems of Asia
PS 335 Politics of Latin America
PS 337 The Russian Political System
PS 338 International Political Economy
PS 339 Revolutions and Intervention
PS 354 Global Environmental Governance
PS 360 International Terrorism: Causes, Consequences, Responses
PS 361 International Organizations
PS 363 Global Democratization

PS 364 Gender and International Relations
PS 413 International Law

3. Political theory and political thought
PS 320 Conducting Political Surveys
PS 321 Systematic Political Analysis
PS 371 American Political Thought
PS 372 Western Political Thought I
PS 373 Western Political Thought II
PS 374 Politics Through Literature
PS 377 Communism
PS 480 Seminar in Political Theory

C. The remaining 12 credits are elective courses with the following restrictions: only 4 credits of PS 110 or PS 362 and no more than a total of 12 credits from PS 390, 459 and 490 will be accepted in the major.

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

The major requires a minimum of 42-46 credits with a possible 58-62 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 (*24-26 credits*)
PS 114 Issues in World Politics
PS 131 Comparative Politics
PS 303 Research Methods and Statistics (*should be taken in the sophomore year, and no later than the junior year*)
PS 314 International Political Theory and Practice
ECN 201 Principles of Microeconomics (4 cr) *or* ECN 210 Principles of Economics (6 cr)
A capstone course selected from:
PS 472 - Seminar in International Relations
PS 476 - Seminar in the Comparative Study of Political Systems

B. Electives in political science (*12 credits*)
PS 308 Special Topics in Comparative Politics and International Relations
PS 315 United States Foreign Policy
PS 317 International Politics of Human Rights
PS 328 Chinese Politics and Foreign Policy
PS 329 European Political Systems
PS 330 Politics of Development
PS 331 Politics in Canada and the Commonwealth
PS 332 Politics of the Middle East and North Africa
PS 333 African Politics
PS 334 Political Systems of Asia
PS 335 Politics of Latin America
PS 337 The Russian Political System
PS 338 International Political Economy
PS 339 Revolutions and Intervention
PS 354 Global Environmental Governance
PS 360 International Terrorism: Causes, Consequences, Responses
PS 361 International Organizations

PS 362* Model United Nations
PS 363 Global Democratization
PS 364 Gender and International Relations
PS 413 International Law

*PS 362 can be taken up to two times for a total of four credits toward the International Relations major.

C. Electives in economics, history, philosophy (*6-8 credits*)
ECN 200 Principles of Macroeconomics
ECN 326 International Economic Development
ECN 373 International Trade
ECN 374 International Finance
HST 262 Introduction to Latin American History II
HST 320 Cold War America, 1945-1990
HST 321 History of American Foreign Relations in the Twentieth Century
HST 341 Europe since 1914
HST 352 Nationalism in Modern Europe
HST 356 Modern Middle East
HST 357 Arab-Israeli Conflict
HST 358 The Cold War in the Middle East
HST 359 Modern Iran and Iraq
HST 363 History of Southern South America
HST 367 History of Mexico
HST 376 China Since 1949
HST 383 Postcolonial Conflicts in African History
HST 386 Modern African History since 1800
HST 389 African Environmental History
PHL 311 Philosophy of International Relations: Law, War and Peace
PHL 320 Global Justice

D. Foreign language co-requisite: (*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.

Requirements for the liberal arts major in public administration and public policy, B.S. program

Students must complete a minimum of 42 credits for the major. Credit toward the major will be allowed only for courses and co-requisites completed with a grade of 2.0 or higher.

A. Core (*16 credits*)
PS 100 Introduction to American Politics
PS 114 Issues in World Politics *or* PS 131 Comparative Politics
PS 303 Research Methods and Statistics (*should be taken in sophomore year)*
PS 351 Public Administration Financial Analysis

B. Sequence of departmental courses that include: (*22 credits*)
PS 257 Public Affairs Career Orientation
PS 350 Public Administration
PS 353 American Public Policy
PS 453 Public Budgeting
PS 454 Public Sector Human Resource Management

PS 458 Internship (4 cr): 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 capstone course (4 cr), subject to approval of the department's chief adviser.

C. Co-requisite course (*4-6 credits*)
ECN 200 Principles of Macroeconomics *or* ECN 210 Principles of Economics (this 6-credit course may be used in lieu of ECN 200)

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, including one introductory core course (PS 100, 114 or 131), and at least 8 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.

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 co-requisite. 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, PS 314 and either ECN 201 or ECN 210.

Electives in political science (*4 credit minimum, 8 credit maximum*): PS 308, 315, 317, 328, 329, 330, 332, 333, 334, 335, 338, 339, 360, 361, 362, 413.

Electives in economics, history or philosophy (*3-4 credit minimum; 6-8 credit maximum*): ECN 200, 326, 373, 374; HST 262, 320, 321, 341, 352, 356, 357, 358, 359, 363, 367, 376, 383, 386, 389; PHL 311, 320.

Co-requisite: 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.

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, including PS 350, PS 353, PS 453, and PS 454. One additional course, selected from the following, is also required: PS 241, PS 305, PS 307, PS 342. Credit toward the minor will be allowed only for courses completed with a grade of 2.0 or higher.

Requirements for the secondary teaching minor in political science

The secondary teaching minor in political science requires 24 credits in political science courses, including PS 100, PS 301 (or 302 or 342), and one course from any four of the following six groupings: state and local government (PS 305 or 307); political behavior (PS 322, 324, 325 or 327); public administration and public policy (PS 350 or 353); international relations and comparative politics (PS 114

or 131); political philosophy (PS 371, 372, 373 or 374); and cross-cultural perspectives (PS 300 or 311). In addition SED 427, Methods of Teaching Secondary Students, is required. 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. ***Please 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 and 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, among others, American studies, applied statistics, human and industrial relations, and criminal justice.

Recommended courses for pre-law students

It is recommended that political science majors interested in law school elect the law related courses given by the department: PS 241 Law and Politics, PS 340 U.S. Constitutional Law, PS 341 Civil Rights and Civil Liberties, PS 342 The Judicial Process. 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.

Paralegal Program

In cooperation with the School of Business Administration's Center for Executive and Continuing Education, the Department of Political Science in the College of Arts and Sciences sponsors courses that prepare students for the paralegal field. To earn the certificate in this American Bar Association (ABA) approved program, students must take 10 foundation courses and three legal specialty courses, and serve an internship in a legal setting.

A student enrolled in the non-credit paralegal program, who also wishes to major in political science, may offer up to 8 credits of this course work toward the 40 credits required for the major. A student who wishes to minor in political science may offer up to 4 credits of this course work toward the 20 credits required for the minor. For a course to qualify for both the degree and the Paralegal Program certificate, concurrent registration for the course in both programs is required. Students enrolled in the paralegal program for academic credit may also use these courses as electives to any degree program. Courses approved to date by the Committee on Instruction are listed below. For specific details on policies and procedures for this program, request a brochure from the Center (238B Elliott Hall, 248-370-3128).

Permission of the Department of Political Science is required to enroll in any of the courses listed below. Only students who have been admitted to the paralegal program may enroll in these courses.

PL 379 (CE 2500) Introduction to the Legal System (2)
PL 380 (CE 2506) Substantive Law: Contracts (2)
PL 381 (CE 2507) Substantive Law: Torts (2)
PL 382 (CE 2510) Legal Research and Writing I (2)
PL 383 (CE 2511) Legal Research and Writing II (2)

PL 384 (CE 2520) Real Property Transactions (2)
PL 385 (CE 2530) Business Organizations (2)
PL 386 (CE 2550) Probate Administration (2)
PL 388 (CE 2568) Estate Planning and Documents (2)
PL 421 (CE 2540) Litigation I: Case Preparation before Trial (2)
PL 422 (CE 2541) Litigation II: Case Preparation before Trial (2)
PL 423 (CE 2547) Litigation III: Anatomy of a Lawsuit (2)
PL 424 (CE 2521) Criminal Law (2)
PL 426 (CE 2524) Environmental Law (2)
PL 427 (CE 2535) Employment Law (2)
PL 429 (CE 2532) Immigration Law and Procedure (2)
PL 431 (CE 2575) Computer Assisted Legal Research (1)
PL 432 (CE 2576) Patent, Trademark and Copyright Law (2)
PL 433 (CE 2578) Auto Accident Law (2)
PL 434 (CE 2579) Family Law (2)
PL 435 (CE 2581) Bankruptcy and Collections (2)
PL 436 (CE 2583) Medical Terminology (2)
PL 491 Special Topics for Paralegals (2)

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*.

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 110 Contemporary Political Issues (2 or 4)
Selected topics dealing with current political issues or public policy problems. The particular topic will be announced at the time of offering. Designed for the general student. May be repeated for credit with different topics.

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 241 Law and Politics (4)
A 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 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. (This course may not be taken for credit by students receiving credit for AMS 300.)

PS 301 American Presidency and the Executive Process (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.
Prerequisite: PS 100.

PS 303 Research Methods and Statistics (4)
A study of research design, measurement of political variables and data analysis.
Prerequisite: PS 100, 114 or 131 or permission of instructor.

PS 304 Computer Techniques (2)
Introduction to the computing environment at the university; computer packages in word-processing, electronic spreadsheet analysis and business graphics statistical packages on the computer.

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.
Prerequisite: PS 100.

PS 306 Special Topics in American Politics (4)
From time to time, the department offers courses on special topic 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.
Prerequisite: PS 100.

PS 308 Special Topics in Comparative Politics and International Relations (4)
From time to time, the department offers courses on special topic 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 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. *Satisfies the university 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 writing intensive course in general education or the major, not both. Prerequisite for writing intensive: completion of university writing foundation requirement.*
Prerequisite: may not be taken for credit by students who have taken PS 203.

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.
Prerequisite: PS 114 or permission of instructor.

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.
Prerequisite: PS 100 or 114 or permission of instructor.

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 314 recommended.

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: PS 303.

PS 321 Systematic Political Analysis (4)
A study of selected formal (i.e., logical, mathematical or statistical) models in political science. An introduction to the methodology of social science research, with emphasis on student research projects.
Prerequisite: PS 303.

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 and Interest Groups.
Prerequisite: PS 100.

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.
Prerequisite: PS 100.

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.
Prerequisite: PS 100.

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.
Prerequisite: PS 114 or 131.

PS 331 Politics in Canada and the Commonwealth (4)
An analysis and comparison of politics, parties, parliament, politicking and public policy in Canada and selected countries of the Commonwealth.

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 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.
Prerequisite: PS 114 or ECN 200 or 201.

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)
A 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 100 or 241 recommended.

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 100 or 241 recommended.

PS 342 The Judicial Process (4)
A study of judicial behavior and decision making in federal courts with an emphasis on the role of courts in developing public policies. PS 100 or 241 recommended.

PS 343 Women 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.
Prerequisite: PS 100 or PS 241 recommended.

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: 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.
Prerequisite: PS 100 or permission of the instructor.

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.
Prerequisite: PS 100 or permission of instructor.

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 359 Public Policy and Health Care (4)
An examination of the status and evolution of public policies relating to health and health care, the policy-making processes in health care and the various implications of trends in health care policy. Identical with HS 359.
Prerequisite: PS 100.

PS 360 International Terrorism: Causes, Consequences, Responses (4)
An exploration of terrorist motivation and ideology, methods, and the effectiveness of international and state-level responses to terrorist challengers.
Prerequisite: PS 114 or permission of instructor.

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)
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: 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.
Prerequisite: PS 114 or 131.

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.
Prerequisite: PS 114.

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)
Will use literary works (novels, short stories, plays, essays) to examine a range of social and political systems in specific settings. Will discuss 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: permission of department and instructor; form available in 418 Varner Hall.

PS 412 Police Budgeting and Personnel Management (4)
Finance and resource allocation methods used by local and state police agencies. Topics include funding sources, expenditure patterns, resource allocation techniques and stakeholder influence.

PS 413 International Law (4)
An examination of the principles and organization of modern international law. Attention is given to the growing fields of ocean resources, outer space, environmental protection and information law.
Prerequisite: PS 314.

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 or 8)**
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: internship director permission.
Prerequisite or corequisite: PS 257.

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: permission of internship director.
Prerequisite or corequisite: PS 257 or 326.

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: PS 303, junior or senior standing, and permission of department.

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: PS 303, junior or senior standing, and permission of department.

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: PS 303, junior or senior standing, and permission of department.

PS 490* **Special Topics or Directed Research (2, 4 or 8)**
Prerequisite: permission of the instructor; form available in 418 Varner Hall.

PS 497 **Apprentice College Teaching (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: permission of instructor and department chair; form available in 418 Varner Hall.

***Students are limited to 8 credits of independent study (PS 390 or 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.**

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 **Seminar in Political Behavior (4)**
PS 478 **Seminar in Public Law (4)**
PS 480 **Seminar in Political Theory (4)**
PS 482 **Seminar in Public Administration: Strategies and Policies (4)**
PS 484 **Seminar in Public Policy (4)**

DEPARTMENT OF PSYCHOLOGY

111 PRYALE
(248) 370-2300
Fax: (248) 370-4612

Chairperson: *Todd K. Shackelford*

Professors emeriti: *Edward A. Bantel, Jean S. Braun, Daniel N. Braunstein, Harvey Burdick, Christine Hansen, Algea Harrison, Lawrence Lilliston, Ralph Schillace, David W. Shantz*

Professors: *Ranald D. Hansen, Dean G. Purcell, Todd K. Shackelford, Robert B. Stewart, Jr.*

Associate professors: *Mary B. Lewis, Sylvie Adeline Lombardo, Debra McGinnis, Cynthia Sifonis, Keith L. Williams*

Assistant professors: *Andrea T. Kozak, Scott Pickett, Michele Purdie, Lakshmi Raman, Kanako Taku*

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.

Course work 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 40 credits in psychology with a minimum GPA of 2.00 over all psychology courses and must satisfy the following three requirements:

1. PSY 100, 250 and 251 with a minimum course grade of 2.0.
2. Two of the following courses: PSY 215, 225, 235 and 245.
3. One course each from the following four groups:
   Basic processes: PSY 311, 315, 316, 318, 319, 415
   Developmental: PSY 321, 322, 323, 327, 425
   Social: PSY 330, 333, 337, 338, 339, 435
   Personality and individual differences: PSY 341, 342, 343, 344, 445

Students planning to attend graduate school should complete one of the experimental courses (PSY 450, 452, 453 or 454).

Departmental honors

Departmental honors may be awarded to graduates who have taken a 400-level experimental methods course (or equivalent), or who have done honors-level work resulting in a tangible product in

PSY 494 or in PSY 483-485, 487-489, and achieved a grade point average of 3.50 or above in psychology courses. The student must have completed at least six psychology courses at Oakland University. It is also the student's responsibility to file an "Application for Departmental Honors in Psychology" form.

Requirements for a modified major in psychology with a concentration in linguistics, B.A. program

Students with this modified major in psychology must have a minimum of 24 credits in psychology and 20 credits in linguistics including:

1. PSY 100, 250 and 251;
2. At least two 300-level PSY courses;
3. 16 credits in LIN courses, including: LIN 201, 303, 304, and either 403 or 404;
4. ALS 335.

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 three requirements:

1. PSY 100 or 130, and PSY 250 with a minimum course grade of 2.0.
2. Two of the following courses: PSY 215, 225, 235 and 245.
3. One course each from two of the following four groups:
   Basic processes: PSY 311, 315, 316, 318, 319, 415
   Developmental: PSY 321, 322, 323, 327, 425
   Social: PSY 330, 333, 337, 338, 339, 435
   Personality and individual differences: PSY 341, 342, 343, 344, 445.

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*.

PSY 100 Foundations of Contemporary 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 130 Positive Psychology (4)
Scientific study of the strengths and virtues that allow individuals and communities to thrive. Understanding positive emotions such as contentment, happiness, hope; individual traits such as capacity for love and work, courage, compassion, resilience, creativity, curiosity, integrity, self-knowledge, moderation, wisdom; institutional strengths that foster justice, parenting, leadership, teamwork, purpose and tolerance. *Satisfies the university general education requirement in the social science knowledge exploration area.*

PSY 200 Topics in Psychology (4)
Offered occasionally on special topics of current interest that are not listed among regular offerings.
Prerequisite: See individual listings in *Schedule of Classes*.

PSY 215 Introduction to Basic Psychological Processes (4)
Survey of the processes of learning, memory and thinking, including physiological factors underlying these processes.
Prerequisite: 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: 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: PSY 100 with a grade of 2.0 or higher.

PSY 245 Introduction to Individual Differences and Personality Psychology (4)
A 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: PSY 100 with a grade of 2.0 or higher.

PSY 250 Introduction to Research Design (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: PSY 100 with a grade of 2.0 or higher.

PSY 251 Statistics and Research Design (4)
Introduces principal statistical procedures needed to analyze and interpret data in behavioral science research. Includes descriptive and inferential statistics.
Prerequisite: 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 305 Creativity and Innovation (4)
Interdisciplinary approach to understanding cultural, societal, individual, cognitive, and biological determinants of creativity and their application to innovation.
Prerequisite: 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: PSY 250 with a grade of 2.0 or higher.

PSY 315 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: PSY 250 with a grade of 2.0 or higher.

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: PSY 250 with a grade of 2.0 or higher.

PSY 318 Physiological 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: PSY 250 with a grade of 2.0 or higher.

PSY 319 Animal Behavior (4)
Comparative psychological, ethological and sociobiological viewpoints on behavior of animals. Emphasis will be 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: 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: 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: 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: PSY 250 with a grade of 2.0 or higher.

PSY 327 Socialization in the Family (4)
Some areas of research and theory on socialization processors. Areas of focus: attachment and separation, conscience development, sex-role identity, ego-identity, etc. Role of principal agents, e.g., family, peers, school. *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: 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: PSY 250 with a grade of 2.0 or higher.

PSY 333 Motivation (4)
The nature of physiological and behavioral mechanisms that control an organism's reaction to the demands of its environment. *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: PSY 250 with a grade of 2.0 or higher.

PSY 337 Interpersonal Processes and Group Behavior (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: PSY 250 with a grade of 2.0 or higher.

PSY 338 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: PSY 250 with a grade of 2.0 or higher.

PSY 339 Emotion (4)
Understanding of human emotion from both a 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 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: PSY 250 with a grade of 2.0 or higher.

PSY 341 Introduction to 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: PSY 250 with a grade of 2.0 or higher.

PSY 342 Coping Strategies in the Normal Personality (4)
Characteristics of healthy personality in the following dimensions: need gratification, reality contact, interpersonal relationships and growth. *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: PSY 250 with a grade of 2.0 or higher.

PSY 343 Psychopathology of Childhood (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: 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: PSY 250 with a grade of 2.0 or higher.

PSY 358 History and Systems of Psychology (4)
How psychology came to be as it is. The beginning to the great experiments and the schools of psychology; the schools to World War II; World War II to the present. Researchers, experiments, theories. *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: PSY 100 with a grade of 2.0 or higher and two psychology courses other than PSY 251.

PSY 362 Statistical Analysis on Computers (4)
Advanced statistical procedures employed in behavioral science research. Emphasis will be on the statistical software SPSS. Topics include multivariate analyses and nonparametric tests. *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: PSY 251 with a grade of 2.0 or higher.

PSY 370 Psycholinguistics (4)
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 371 Work with the Elderly (4)
Introduction to community and institutional work with the elderly. Field placement is combined with readings and lectures on psychosocial services for the elderly.
Prerequisite: PSY 250 with a grade of 2.0 or higher, and 323 or permission of instructor.

PSY 374 Psychology of Women (4)
Examines gender differences resulting from the socialization of girls and women and the psychological impact of life events experienced exclusively or differentially by women. Topics include role conflicts, gender stereotypes, achievement and employment. Identical with WGS 374.
Prerequisite: PSY 100 with a grade of 2.0 or higher.

PSY 381 Tests and Measurement (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: 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: 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 415 Seminar in Basic Psychological Processes (4)
Advanced seminar in a special topic related to cognition, perception, conditioning or physiological processes. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 215, 250 with a grade of 2.0 or higher, and 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. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 225, 250 with a grade of 2.0 or higher, and 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. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 235, 250 with a grade of 2.0 or higher, and permission of instructor.

PSY 445 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. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 245, 250 with a grade of 2.0 or higher, and permission of instructor.

PSY 450 Research Methodology: Basic Psychological Processes (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: PSY 251 with a grade of 2.0 or higher and permission of instructor.

PSY 452 Research Methodology: Developmental (4)
Issues in design and methodology of psychological research with application to the developmental area. Independent research project required. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 251 with a grade of 2.0 or higher, and permission of instructor.

PSY 453 Research Methodology: Social (4)
Issues in design and methodology of psychological research with application in the social area. Individual research project required. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 251 with a grade of 2.0 or higher and permission of instructor.

PSY 454 Research Methodology: Individual Differences and Personality (4)
Issues in design and methodology of psychological research with application to the social area. Independent research project required. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: PSY 251 with a grade of 2.0 or higher and permission of instructor.

PSY 460 Senior Seminar in Psychological Science (4)
This team-taught seminar will bring to bear the understandings of various subdisciplines in psychology on a complex behavioral issue (e.g. child rearing, academic achievement, hostility and helping). The members of the department representing the relevant subdisciplines will lead the seminar discussion.
Prerequisite: PSY 251 with a grade of 2.0 or higher and PSY 358.

PSY 470 Apprentice College Teaching (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: permission of instructor.

PSY 483-485 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: permission of instructor and completion of the university writing foundation requirement.

PSY 487-489 Research Apprenticeship (2 or 4 each)
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: permission of instructor.

PSY 494 Honors Independent Studies (4)
Independent honors research project supervised by a faculty member. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: permission of instructor.

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

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Chairperson: *Albert J. Meehan*

Professors emeriti: *Peter J. Bertocci, William E. Bezdek, Judith K. Brown, James W. Dow, Harry Gold, David R. Maines, Jacqueline R. Scherer, Gary Shepherd*

Professors: *Albert J. Meehan, Terri L. Orbuch, Suzanne M. Spencer-Wood*

Associate professors: *Karen Allen, Joanne E. Reger, Cynthia Schellenbach, Richard B. Stamps*

Assistant professors: *Amanda Burgess-Proctor, Graham Cassano, Lisa Dalton, Henri Gooren, Raymond V. Liedka, Heidi Lyons, George Sanders, Scott Smith*

Chief advisers: *Cynthia Schellenbach (Sociology), Maria DeVoogd Beam (Social Work)*

The Department of Sociology and Anthropology offers a major in sociology and a major in anthropology leading to a Bachelor of Arts (B.A.) degree, and a major in social work leading to the Bachelor of Social Work (BSW) 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.

Students also may select a combined major in sociology and anthropology, and a modified major in sociology or anthropology with a concentration in linguistics. The department offers minors in sociology or anthropology and sociology minor for students in the secondary teaching education program (STEP). The department houses two interdisciplinary concentrations – archaeology and criminal justice, as well as the religious studies program, which offers a concentration in religious studies and three minors in Islamic studies, Judaic studies, and Christianity studies. The department also participates in the American studies and urban studies concentrations.

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
   SOC 202 Research Methods
   SOC 203 Social Statistics with Computer Applications
   SOC 400 Sociological Theory

2. One class from each of the following categories:

Interaction processes:	SOC 206, 207, 337, 402
Social issues:	SOC 205, 300, 222, 323, 315, 316, 465
Social institutions:	SOC 240, 326, 305, 320, 327, 328, 335, 381, 425, 437
Social inequality and change:	SOC 301, 331, 336, 344, 345

3. 8 elective credits at the 300-400 level, 4 of which may include anthropology.

***Note**: no more than 8 credits counted toward the major may be taken in SOC 190, 392, 399 or 480.

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
   AN 102 Culture and Human Nature
   AN 302 Anthropological Research Methods
   AN 470 Anthropological Theory

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, 382, 391 or 410
Social anthropology:	AN 200, 210, 271, 300, 305, 307, 310, 320, 322, 331, 337, 374, 375, 401 or 430.
Archaeology:	AN 222, 282, 370, 380, 385
Ethnology of world culture area:	AN 361, 362, 363, 371 or 381

      2. 8 credits in electives from any AN courses at the 200 level or above.

   B. **Archaeology** (*24 credits*):
      1. AN 222
      2. AN 383 (8 credits)
      3. 12 elective credits from AN 282, 370, 380, 384, 385

C. **General anthropology** (*24 credits*):
Students may choose elective credits from any anthropology courses.

Note: LIN 201 is strongly recommended for all AN 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/SOC 190, 392, 399 or 480.

Requirements for the combined liberal arts major in sociology/anthropology, B.A. program

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. SOC 100, 202, 203
2. AN 101, 102
3. SOC 400 or AN 470.

No more than 8 credits counted toward the major may be taken in SOC/AN 190, 392, 399 or 480.

Requirements for the major in social work, Bachelor of Social Work (BSW) program

Admission to the Bachelor of Social Work degree program will be based on the following criteria: a minimum GPA of 2.80; completion of the pre-core courses; experience in the human services field (employment or volunteer work including work completed for SW 210 or SOC 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 complete a minimum of 48 credits in the core social work curriculum.

Pre-core *(28 credits):*

1. SOC 100 Introduction to Sociology
   SW/SOC 210 Introduction to Social Work
   BIO 104* Human Biology or BIO 111 Biology
   PSY 100* Foundations of Contemporary Psychology
   PS 100* Introduction to American Politics
2. Co-requisites (may be taken concurrently with major course work)
   AN 102 Culture and Human Nature
   Sociology elective selected from: SOC 240, 323, 326, 465

Core *(48 credits):*

1. SOC 202 Introduction to Methods of Social Research
   SOC 203 Social Statistics with Computer Applications
   SW 310*** Human Behavior and Social Environment I
   SW 311 Human Behavior and social Environment II
   SOC/
   SW 315 Social Welfare Policies
   SW 316*** Fundamentals of Social Work Practice
   SW 318*** Foundations for Multicultural Social Work
   SW 405 Social Work Practice I
   SW 406 Social Work Practice II
   SW 430 Social Work Internship I
   SW 431 Social Work Seminar I

SW 432	Social Work Internship II
SW 433	Social Work Seminar II

2. Diversity courses selected from: SOC 331** or WGS 200**

*May be used to fulfill general education requirements and/or college distribution requirements.
**Either course may be used to fulfill the university's U.S. diversity requirement, and the major diversity requirement.
***Students must be formally accepted into the social work program to take this course.

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, 202, 203, 400, and a minimum of 20 credits in linguistics including LIN 201, 303, 304, and either 403 or 404, and LIN/SOC 376.

To earn a modified major in anthropology with a concentration in linguistics, students must complete AN 101 and 102, plus a minimum of 12 additional credits in anthropology and 20 credits in linguistics, including: LIN 201, 303, 304, and either 403 or 404, and either LIN/AN 374 or 375.

Requirements for a liberal arts minor in sociology or anthropology

To earn a minor in sociology, students must complete SOC 100 plus a minimum of 16 additional credits in sociology, 12 of which must be at the 300-400 level. To earn a minor in anthropology, students must complete AN 101 and 102 plus a minimum of 12 credits in anthropology courses at the 300-400 level.

Requirements for the secondary teaching minor in sociology (STEP)

Generally a cumulative grade point average (GPA) 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.

The secondary teaching minor in sociology requires a minimum of 24 credits including:

1. Core: SOC 100, 205, 331.
2. One course from each of the following areas:
   a. Social Problems: SOC 240, 300 or 315.
   b. Social Inequality: SOC 301, 336 or 352.
   c. Interpersonal Relations: SOC 335, 337 or 402.
3. In addition SED 427, Methods of Teaching Secondary Students, is required.

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 distribution 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.

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.

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*.

Permission to register for a course may be granted by the instructor when previous course work, other than the prerequisite(s) listed below, qualifies the student for enrollment in the course.

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 (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 worldwide 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: AN 102.

AN 222 Introduction to Anthropological Archaeology (4)
Introduces the field of anthropological archaeology through examination of theory. data collection methods and techniques, and interpretive strategies used to understand human histories, lifeways 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: AN 102.

AN 282 The Prehistoric Origins of Civilization (4)
The development and spread of culture in the period before written history, using archaeological evidence from Neolithic Old World and New World sites. Cultural evolution from early farming and settlement to the rise of complex civilization.
Prerequisite: AN 101.

AN 300 Culture, Society and Technology (4)
Technology has played a critical role in all human evolution. This course provides a 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: 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: 4 credits in art history.

AN 309 Pre-Columbian Art (4)
Identical with AH 309.
Prerequisite: 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: AN 102.

AN 320 Law and Society (4)
Identical with SOC 320.
Prerequisite: SOC 100 or 205 or AN 102.

AN 322 The Food Quest (4)
Relationship of environment, subsistence activities and food-related technologies in a variety of non-industrial societies, including both societies 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: SOC 100 or 205 or AN 102.

AN 333 Medical Anthropology (4)
Interaction between biological, ethnopsychiatric and sociocultural environments in health, illness and treatment. Includes historical, organizational, demographic, ecological and other problems in health care delivery.
Prerequisite: 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: AN 102 or WGS 200.

AN 350 World Regional Geography (4)
Comparative study of 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: 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 sociocultural change.
Prerequisite: 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: 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: 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: 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: 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: 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)
The evolution of native North American cultures (including Mesoamerica) from 50,000 B.C. to 1500 A.D., with emphasis on the ecological factors in the development of culture areas.
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: 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: AN 101.

AN 383 Methods in Anthropological Archaeology (4 or 8)
Instruction and field research including site location, excavation and artifact analysis, and conservation. If taken once for 4 credits, may be repeated once more for 4 credits.
Prerequisite: AN 101.

AN 384 Museum Studies in Archaeology (4 or 8)
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: 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.*
Prerequisites: AN 101 or AN 102 or permission of instructor.

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: 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: 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: 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: 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: 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: 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: 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.*
Prerequisites: 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: 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 only once for credit toward a major.
Prerequisite: senior anthropology major and 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 190 Current Issues in Sociology (4)
Designed for the general student, this course will examine issues of current interest in sociology. The topic will be announced at the time of the offering.

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: 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: SOC 100, 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: SOC 100 or 206.

SOC 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. Identical with SW 210.
Prerequisite: SOC 100 or PSY 100.

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: SOC 100 or 205.

SOC 240 Sociology of Crime and Punishment (4)
An introduction to the study of crime and the system of criminal justice in the United States. Provides an overview of different theories of crime, the production of crime statistics, types of offenses, the role of the police, courts and correctional agencies, and public policy. Also includes a comparison of street crime with white-collar crime. *Required of all students in the criminal justice concentration.*

SOC 300 Alcohol, Drugs and Society (4)
An 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.
Prerequisite: SOC 100 or 205.

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: SOC 100 or 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: SOC 100 or 205

SOC 308 Population Dynamics (4)
Historical analysis of world population growth, focusing on relationships among population size, population policy, and social and economic development.
Prerequisite: SOC 100 or 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: SOC 100 or SOC/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: SOC 100 or 205 or AN 102.

SOC 323 Juvenile Delinquency and its Social Control (4)
Nature and types of juvenile delinquency, the relation of juvenile delinquency to the stress of adolescence and the specific social situation, methods of preventing delinquency or its recurrence.
Prerequisite: SOC 100 or 205.

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: SOC 100 or 205.

SOC 327 Police and Society (4)
A study of police techniques and problems, of deviant citizen-police relations, and of social control in a field where power is high and visibility is relatively low. Topics include the defenses against corruption and the containment concept of police.
Prerequisite: SOC 100 or 205.

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: SOC 100 or 205.

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: SOC 100 or 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 science knowledge exploration area.*
Prerequisite: SOC 100 or 205 or AN 102.

SOC 335 The Family (4)
A comparative and historical study of the family. Identical with WGS 335.
Prerequisite: SOC 100 or 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: SOC 100 or 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: SOC 100 or 206.

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: SOC 100 or 205.

SOC 345 Urban Sociology (4)
The social structure, culture and ecology of early and contemporary urban communities; institutional responses to the problems of modern urban life.
Prerequisite: SOC 100 or 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: SOC 100 or 205.

SOC 352 Women 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: 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: 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: 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: SOC 100 or 205.

SOC 392 Current Problems in Sociology (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: SOC 100 or 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: sociology major or permission of instructor.

SOC 399 Field Experience in Sociology (4)
Field experience in sociology 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: junior/senior standing; 16 credits in sociology, of which at least 8 must be at the 300/400 level, and permission of the instructor.

SOC 400 Sociological Theory (4)
Major theoretical foundations of sociology including conceptual contributions of both classic and contemporary theorists. *Satisfies the university 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: SOC 100 or 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: SOC 100 or 205.

SOC 420 Research and Policy Evaluation in Criminal Justice (4)
Overview of problems of conducting research and policy evaluation in criminal justice agencies, including history of such research and "problem oriented" approach to policing.
Prerequisite: SOC 202, 203, or equivalent, and SOC 240. SOC 202 and 203 may be taken concurrently.

SOC 425 Corrective and Rehabilitative Institutions (4)
Overview of prison and correctional systems in the United States. Includes reviews of the historical development of corrections and current issues in corrections, 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: SOC 100 or 205.

SOC 430 Internship in Criminal Justice (2 or 4)
Field placement and supervision of students in police, prison, and parole organizations and agencies.
Prerequisite: enrollment in criminal justice concentration and written permission of instructor.

SOC 437 Sociology of the Courts (4)
The roles of judges, court officers, jury and attorneys are described and analyzed in the context of their professional matrix.
Prerequisite: SOC 100 or 205.

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: SOC 100 or 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: SOC 100 or 205.

SOC 480 Independent Study and Research (2 or 4)
Directed individual reading and research.
Prerequisite: permission of instructor.

SOC 497 Apprentice College Teaching (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: 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. Identical with SOC 210.
Prerequisite: SOC 100 or PSY 100.

SW 310 Human Behavior and Social Environment I (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: BIO 104 or BIO 111; PSY 100; SOC 100, or SOC 210 or SW 210; and formal admission to social work program.

SW 311 Human Behavior and Social Environment II (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: 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: 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: BIO 104 or 111; PS 100; PSY 100; SOC 100; SOC 210 or SW 210; and formal acceptance into 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: SW 310 and SW 316.

SW 395 Special Topics in Social Work (4)
Special topic for which no course offerings currently exist. May be repeated for credit under different subtitle.
Prerequisite: 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, 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: SW 311; SOC 315 or SW 315; and SW 318.
Corequisite: 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, institutional racism.
Prerequisite: SW 405.
Corequisite: 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: SW 311, SW 315 and SW 318.
Corequisite: 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, skills. Review of helping process, generalist practice, 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: SW 311, SW 315, SW 318.
Corequisite: 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: SW 405, SW 430 and SW 431.
Corequisite: 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: SW 405, SW 430 and SW 431.
Corequisite: SW 406 and SW 432.

WOMEN AND GENDER STUDIES PROGRAM

Director: *Jo Reger (Sociology)*

Women and Gender Studies Executive Committee: *Susan Evans (Art), Kellie Hay (Communication), Diane Hartmus (Political Science), Tim Larrabee (Education), Sylvie Lombardo (Psychology), Mark Navin, (Philosophy), Patricia Wren (Health Sciences)*

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, distributed as follows:

1. Core: WGS 200, 320, 321, 399, 405. Students must earn a grade of at least 2.0 in both WGS 200 and 320.
2. Five courses selected from: AH/WGS 351; AN/WGS 305, 337, 385; COM 327; EED/WGS 481; HST/WGS 322, 339, 361, 362, 375; MUS/WGS 370; PA 510, 511; PHL 305/WGS 307; PS/WGS 311; PSY/WGS 374; WRT/WGS 365; SOC 207, 335, 336, 352; WGS/WHP 325; WGS 300, 301, 382, 400.

At least 28 credits counted towards the major must be at the 300 level or above.

Note: 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.

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.

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 distribution as follows:

a. Core: WGS 200, 320, 321. Students must earn a grade of at least 2.0 in both WGS 200 and 320.
b. 8 credits at the 300 level or above chosen from the above list of WGS electives.

Course Offerings

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: SOC 100 or 206.

WGS 300 Women in Transition (4)
Focuses on life experiences unique to women. Major issues include identity and independence, marriage, childbirth, adulthood and aging. *Satisfies the university 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. Satisfies the university general education requirement in U.S. Diversity.*

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 305 The Life Course in Anthropological Perspectives (4)
Identical with AN 305.

WGS 307 Philosophy of Gender (4)
Identical with PHL 305.
Prerequisite: WRT 160 and one course in philosophy or one course in women and gender studies.

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: 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: WGS 200.

WGS 322 Women in Modern America (4)
Identical with HST 322.
Prerequisite: 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 335 The Family (4)
Identical with SOC 335.
Prerequisite: SOC 100 or 205.

WGS 336 Sociology of Gender (4)
Identical with SOC 336.
Prerequisite: SOC 100 or 205.

WGS 337 Women's Lives in Cross-Cultural Perspective (4)
Identical with AN 337.
Prerequisite: AN 102 or WGS 200.

WGS 339 Women in Early Modern Europe (4)
Identical with HST 339.
Prerequisite: WRT 160.

WGS 351 Women in Art (4)
Identical with AH 351.
Prerequisite: AH 101 or WGS 200.

WGS 352 Women and Work (4)
Identical with SOC 352.
Prerequisite: 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: 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: WRT 160.

WGS 364 Gender and International Relations (4)
Identical with PS 364.
Prerequisite: PS 114.

WGS 365 Women Writing Autobiography (4)
Identical with WRT 365.
Prerequisite: WRT 160.

WGS 370 Women in Music (4)
Identical with MUS 370.

WGS 374 Psychology of Women (4)
Identical with PSY 374.
Prerequisite: PSY 100 or 130.

WGS 375 Women in China, 1700 to the Present (4)
Identical with HST 375.
Prerequisite: WRT 160.

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: AN 101 or 102.

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: junior/senior standing. Minimum of 16 credits in the major including WGS 320, 321 or approval of women and gender 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: 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 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: junior or senior standing. 16 credits in women and gender studies courses including WGS 320 and 321 or approval of women and gender studies director.

WGS 481 Gender Socialization in the Schools (4)
Identical with EED 481.

The following courses are graduate level courses open to undergraduate students with instructor, and women and gender studies director permission:

PA 510 Non-Profit Organizations and Management (4)
Fundamentals of nonprofit organization and management. Differences between the nonprofit and the for-profit and public sectors. Board and staff relations. Management theories; leadership styles. Human

resource development; financial management; planning and accounting. Marketing, public relations and ethical issues. Case studies and specific management techniques.

PA 511 Fundraising and Philanthropy (4)
Issues of fundraising and philanthropy in the nonprofit sector. Case studies of nonprofit fundraising from a variety of nonprofit organizations. Sources of funding: government, public and private foundations, corporate giving, and individual contributions. Ethics and values in fundraising. Strategies and techniques of fundraising.

DEPARTMENT OF WRITING AND RHETORIC

378 O'Dowd Hall (248) 370-2746
Fax: (248) 370-2748

Chairperson: *Marshall Kitchens*

Professors: *Alice S. Horning, Ronald A. Sudol*

Associate professors: *Wallis May Andersen, Marshall W. Kitchens*

Assistant professors: *Elizabeth G. Allan, Dana Lynn Driscoll, Greg Giberson, Lori Alden Ostergaard, Jim Nugent*

Special instructors: *Bernadette Dickerson, Catherine Haar, Kasia G. Kietlinska*

Lecturers and Special Lecturers: *Glen Armstrong, Benjamin Bennett-Carpenter, Marilyn Borner, Timothy Briggs, Matthew Burkett, William Byrne, David Calonne, Catheryn Cheal, Jill Chroback, Laura Colbeck, Jennifer Coon, LaWanda Dickens, Joseph DiGaetano, Colleen Doyle, Suzanne Drapeau, Laura Duprey, Wendy Farkas, Matthew Ferguson, Ryan Flaherty, Christina Fontana, John Freeman, Laura Gabrion, Natasha Gavroski, Paul Gelinas, Christina Hall, Lisa Hine, Vanessa Holmes, Laura Klein, Andrew Kos, Fran Kranz, Kathleen Lawson, Sabahat Masood, Catherine McQueen, Shaun Moore, Arthur Orme, Sherry Perdue, Cornelia Pokrzywa, Colleen Potocki, Leba Rauthort, Lauren Rinke, Rebecca Rivard, Cathy Rorai, William Rouster, Bethany Shepherd, John Simecek, Kathy Skomski, Craig Smith, Jeremy Stephison, Michael Tolinski, Carol Trupiano, Amelie Welden, Helen Zucker*

Chief adviser: *Greg Giberson*

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.

Students who take courses 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 new media; or on academic writing in preparation for graduate studies.

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.

The department supports a larger culture of writing including the Oakland University Writing Center, the Meadow Brook Writing Project, the Writing Excellence Awards and the Community Book Project.

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

Placement by ACT 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. Students who have been exempted from WRT 160 for submitting a portfolio as described under the *General Education Program* in the *Undergraduate Degree Requirements* section of the *Undergraduate Catalog* do not need to take WRT 160 and can instead choose an additional elective course to complete their 20 credit of course work. Students must complete the following:

1. twelve credits from core courses WRT 160, 342, and 394.
2. eight credits from WRT electives at the 200 level or above. Students may substitute appropriate courses from other departments with permission of the WRT department chair.
3. sixteen credits from one area of specialization (one of the elective courses may be chosen from another track with the permission of the WRT department chair):
    a. Writing for the Professions: WRT 331, plus three courses from WRT 335, 350, 381, 382, and 386.
    b. Writing for New Media: WRT 232, plus three courses from WRT 231, 233, 305, 330, 332, and 370.
    c. Writing as a Discipline: WRT 329, plus three courses from WRT 320, 360, 364, 365, 414 and 497.
4. One senior capstone (WRT 490 or 491) is required.

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. Students who have been exempted from WRT 160 for submitting a portfolio as described under the *General Education Program* in the *Undergraduate Degree Requirements* section of the *Undergraduate Catalog* do not need to take WRT 160 and can instead choose an additional elective course to complete their 20 credit of course work.

1. Core courses (8 credits):
    a. WRT 160 Composition II (*or its equivalent*),
    b. one course from the following: WRT 342 (History of Rhetorical Studies), WRT 394 (Literacy, Technology, and Civic Engagement), WRT 331 (Introduction to Professional Writing),
2. 12 credits from additional WRT courses at the 200 level or above.

Departmental honors

Graduating seniors may apply for departmental honors. To be considered, students must have completed 24 credits of writing and rhetoric program courses at Oakland University with a GPA of 3.60 or higher in the major.

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*.

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: 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 skills 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: placement by ACT English score, or WRT 102 with a grade of 2.0 or higher.

WRT 160 Composition II (4)
Emphasizes the process of writing in increasingly complex rhetorical situations with focus on developing analytic thinking and problem-solving strategies in writing. Students learn methods of academic research including evaluation and documentation of sources and are expected to create at least one research paper. *A grade of 2.0 or higher must be achieved to satisfy the university general education requirement in the writing knowledge foundation area.*
Prerequisite: WRT 150 with a grade of 2.0 or higher, or placement.

WRT 231 Composing Audio Essays (4)
Explores the rhetorical, ethical, and technical principles of creating personal and ethnographic essays and oral histories for digital audio distribution.
Prerequisite: completion of the university writing foundation requirement.

WRT 232 Writing for New Media (4)
Introduction to the rhetorical, ethical, stylistic, and technical principles of web authoring. Examines the rhetorical roles of ethos, logos, and pathos in the construction of online identities; basic theoretical arguments around the construction of identity and community in online contexts; and ethical and stylistic issues surrounding web authorship.
Prerequisite: 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: completion of the university writing foundation requirement.

WRT 305 Advanced Writing: Various Themes (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: completion of the university writing foundation requirement.

WRT 320 Peer Tutoring in Composition (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: a grade of 3.0 or better in WRT 160 or its equivalent.

WRT 329 Composition 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: completion of the university writing foundation requirement.

WRT 330 Digital Culture: Identity and Community (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. Identical with COM 330. *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: 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: 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: WRT 160 and WRT 232 or permission of instructor.

WRT 335 Writing for Human Resource Development Professionals (4)
Development of analytic reading and writing skills for human resource development professionals. Emphasis on using rhetorical analysis to write in a variety of forms which may include letters, memos, electronic communications, problem statements, proposals, and 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. Prerequisite for writing intensive and knowledge applications: completion of the university writing foundation requirement.*

WRT 340 Issues in Writing and Rhetoric Studies (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.
Prerequisite: completion of the university writing foundation requirement.

WRT 342 History of Rhetorical Studies (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: 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: 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: 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: completion of the university writing foundation requirement.

WRT 365 Women Writing Autobiography (4)
Students use autobiography as a feminist methodology to explore topics of personal and community significance, and practice writing strategies relevant to addressing issues of audience, purpose, agency and research. Autobiographical texts by diverse women writers serve as models for students' own writing. Identical with WGS 365.
Prerequisite: completion of the university writing foundation requirement.

WRT 370 Special Topics (2 or 4)
Special topics in composition and rhetoric. May be repeated under different subtitles.
Prerequisite: completion of the university writing foundation requirement.

WRT 380 Persuasive Writing (4)
Advanced writing designed to help students develop argumentative and stylistic skill in a variety of rhetorical contexts with application in business, communication, industry and government. *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: 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: 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: 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: 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: completion of the university writing foundation requirement.

WRT 414 Teaching Writing (4)
Examination of and practice in instructional techniques and research in writing pedagogy, and such related issues as assessment and classroom workshops.
Prerequisite: 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: junior standing. Completion of the university writing foundation requirement.

WRT 490 Independent Study (2 or 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: one 300-level writing/rhetoric course and permission of instructor.

WRT 491 Internship (4)
Experience working with writing professionals in business, industry or educational or non-profit organizations. May be repeated once in a different setting. *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: WRT 320, 335, 382 or another 300-400 level writing/rhetoric course, and permission of the instructor.

WRT 497 Apprentice College Teaching (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: senior standing. WRT 414 and two additional 300-400 level WRT courses. WRT 414 may be taken concurrently.

OTHER 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. *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*. 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.

Concentration in American Studies

Coordinator: *Jeffrey Insko (English)*

Committee: *Gladys Cardiff (English), Sara Chapman (History), Daniel J. Clark (History), Todd A. Estes (History), Susan Hawkins (English), Edward Haworth Hoeppner (English), Andrea Knutson (English), L. Bailey McDaniel (English), Karen A.J. Miller (History), Kathleen Pfeiffer (English), Janice Schimmelman (Art History)*

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.

Concentration requirements include AMS 300 and 401, one course in anthropology, one American history course at the 300 level and three electives from the courses listed as electives in the current catalog. No more than two electives may be taken from any one department's offerings, and at least one must represent a field or fields outside the student's major. (Those majoring in anthropology or history should be aware that no more than 8 credits may be counted toward both the major and a concentration.) Students interested in pursuing this concentration should file a plan of study with the coordinator.

Recommended departmental electives

Art and art history	AH 350, 352, 355
English	ENG 112, 224, 317, 318, 319, 320, 324, 341, 342
History	HST 114, 115, 292, 301, 305, 306, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 319, 322, 323, 360, 361, 362
Music	MUS 200, 338
Political science	PS 100, 300, 301, 302, 305, 307, 312, 324, 326, 327, 340, 341, 342, 371
Sociology/anthropology	SOC 100, 205, 315, 331, 373; AN 380, 381

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.

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. Prerequisite: Writing requirement (may be waived by the concentration coordinator in the case of foreign students). *Satisfies the university general education requirement for knowledge applications integration. 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 in U.S. diversity*.

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.
Prerequisite: AMS 300.

Concentration in Archaeology

Coordinator: *Richard B. Stamps (Anthropology)*

Committee: *Suzanne M. Spencer-Wood (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:

1. AH 100, AN 101 and 222;
2. one of the following - AH 310, 312, 314, 380; AN 282, 370, 371, 380, 384, 385, 392;
3. 8 credits in field methods (AN 383);
4. at least 4 elective credits. The following courses are recommended for those who wish to expand their background: AH 322, 326; HST 261, 306, 367.

Students are reminded that professional conservation work requires knowledge in botany and chemistry. Students wishing to enroll in the archaeology concentration should file a minor and concentration authorization form with the coordinator.

Minors in Computer Science, Computing, and Information Technology

Coordinator: *Dae-kyoo Kim (Computer Science and Engineering)*

The School of Engineering and Computer Science offers the following three minors, which are available to students in the College of Arts and Sciences.

The *minor in computer science is* suitable for students with majors in engineering, mathematics, physics, chemistry or biology, who may wish to emphasize numerical, scientific and engineering aspects of computing.

The *minors in computing and information technology* are suitable for students with majors in English, history, modern languages, philosophy, psychology, sociology or anthropology, who may wish to take courses that emphasize non-numerical and symbolic data processing aspects of computing and information technology.

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 Department of Computer Science and Engineering section of this catalog.

Concentration in Criminal Justice

Coordinator: *Albert J. Meehan, (Sociology*)

The concentration in criminal justice requires at least 28 credits and is to be taken in conjunction with a full major in any department of the college. It provides career-oriented education for students interested in law, in the social forces producing delinquency and crime, in the evaluation of social planning for crime prevention and control, and in the operation of police organizations and correctional institutions. Graduates of the concentration work in all areas of the criminal justice and treatment systems as well as continue on to law school, masters programs in social work, counseling or criminal justice, or Ph.D. programs in their respective major fields. On occasion, courses related to criminal justice may be offered as special topics courses or seminars by participating departments. These courses will be identified by the concentration director and will count for concentration credit. Appropriate transfer courses also may be accepted for credit when they meet university equivalency requirements. Students should consult with the concentration director to determine how these courses may fulfill credit requirements and to formalize their program of study in the concentration.

A student must be formally admitted to the program by meeting with the concentration director and must fulfill the following requirements:

1. SOC 240, The Sociology of Crime and Punishment.
2. five courses from the following with a minimum of two from different disciplines: PHL 319, 321; PS 241, 340, 341, 342; PSY 322, 341, 343; SOC 300, SOC/AN 320, SOC 323, 327, 420, 425, 437; and
3. 4 credits of SOC 430 Internship in Criminal Justice.

SOC 430 Internship in Criminal Justice is designed to give students practical experience in the criminal justice or legal system. The student's particular interests guide the internship selection process. An internship usually involves work in an agency and meeting with the internship adviser on a regular basis. A term paper integrating existing research literature with some aspect of the internship experience is required in order to receive course credit. The internship is a valuable learning experience and should be taken toward the end of the concentration.

Concentration in Environmental Studies

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 ENV 308, plus 16 credits of work at the 300 level or above selected from at least three rubrics. Advanced courses in many departments may be suitable for the

concentration. In addition to ENV courses, these include, but are not limited to, AN 410; BIO 301, 303, 311, 373; CHM 410, 412, 413; PS 350, 353 and 354. At least 16 credits must be in non-duplicative course work 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 the Environmental Science Program section of the catalog for ENV course offerings.

Concentration in French Studies

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. 8 credits of French language taken at Oakland University. Students must achieve minimally at the 215 level. Students who place into FRH 215 will take 215 and 314; if they place higher than 215, they will take 314 plus 4 credits in a higher level course.
2. 8 credits from the following courses: LIT 181, 182, 251 or ML 390 or LIT 375 when available (all conducted in English).
3. 8 credits from the following history courses: HST 329, 345, 347, 348 and 349*. Other topic courses in history may be substituted with permission of the concentration coordinator.
4. 4 credits in Art and Art History: AH 326, 360 or 361. Other topic courses in art history may be substituted with permission of the concentration coordinator.

*Students must take either HST 101 or 102 as a co-requisite for the concentration (either of which satisfies the general education requirement).

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.

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

Coordinator: *Keith A. Berven (Biological Sciences)*

Committee: *Andrew F.X. Goldberg (Eye Research Institute), Kathleen H. Moore (Chemistry), John R. Reddan (Biological Sciences)*

The pre-medical studies concentration is intended for students who wish to pursue careers in medicine, dentistry, optometry or veterinary medicine. Students are expected to complete a concentration consisting of the following:

1. At least 24-25 credits of biology, including some laboratories and the required introductory biology sequence (BIO 111, 113, 116), and at least three of the following:

Cell biology	BIO 309, 310
Genetics	BIO 341, 342

Physiology BIO 207 or 321 and 322
Biochemistry BIO 325, 326, 425 or CHM 453, 457, 458
Developmental biology BIO 323, 324
Microbiology BIO 319, 320;

2. 20 credits of chemistry: CHM 157, 158, 234, 235, 237;
3. 10 credits of physics: PHY 101-102 or 151-152 and PHY 158;
4. 8 credits of mathematics: MTH 141 plus one of MTH 122, 154, STA 225, 226, 228. Note: pre-optometry concentration students must take 12 credits of mathematics including one statistics course (STA 225, 226, or 228).

The pre-medical studies 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). The committee strongly recommends WRT 142 or 144 for better preparation for the non-science portions of the standardized tests.

This concentration does not constitute a major. Students must elect a major from those offered by the university. Interested students should consult with Keith Berven, pre-medical studies concentration coordinator, for counseling and assistance in planning their academic programs.

Religious Studies

Director: *Charles Mabee*

Sub-program Directors: *Elysa White (Judaic Studies), Achmat Salie (Islamic Studies), Charles Mabee (Christianity Studies)*

Concentration in religious studies

This concentration offers a structured program of study that explores and examines the human religious experience, both in terms of its fundamental ideas as well as pervasive practice. While a number of methods and disciplines common to the liberal arts tradition are employed throughout the various courses offered, focus typically is given to the historical, literary, and cultural 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. Students wishing to make religion the focus of an *independent major* should contact the program director for further information. A minimum of 28 credits is required for the concentration in religious studies, distributed as follows:

1. Either REL 100 or REL 150;
2. Core studies - *Two* of the following (8 credits) from REL 201, 301, 303, 355;
3. Field related studies - *Four* courses in at least *three* of the following five fields (16 credits):
   Art: AH 104, 310, 322, 326;
   History: HST 303, 324, 325, 327, 357; REL 300;
   Literature: ENG 312, ENG 305/REL 311, REL 302;
   Philosophy: PHL 352; PHL/REL 325, PHL/REL 350;
   Social Science: PSY 445 (*only when special topic is religion*), AN/REL 271, SOC/ REL 305.

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 ethnic components – are integrally connected to the most urgent global political issues 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.

Minor in Islamic studies

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. Either REL 100 or REL 150.
2. REL 101.
3. Either REL 314 (Islamic Ethics) or any REL 300 special topics course in Islamic studies, such as Muslims in America, Introduction to Islamic History, Islamic Literature, or Muhammad and the Quranic Tradition.
4. One of the following field related courses: AH 104, HST 356, 357, IS 270.
5. One of the following applications: ARB 114 or higher, or REL 450 (structured by the Islamic studies program director upon request) or approved study abroad in a Middle Eastern country.

Minor in Judaic studies

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. Either REL 100 or REL 150.
2. REL 102.
3. One of the following core studies: REL 315 (Jews in America), 316 (Holocaust) or any REL 300 special topics course in Judaic studies.
4. Either ENG 305/REL 311 or HST 357.
5. One of the following applications: Hebrew language or REL 450 (structured by the Judaic studies director upon request) or approved study abroad in Israel.

Minor in Christianity studies

The liberal arts minor in Christianity studies requires a minimum of 20 credits as described below. At least 8 credits must be taken in religious studies courses at Oakland.

1. Either REL 100 or REL 150.
2. 12 credits selected from among: ENG 305/REL 311 (The Bible as Literature), AH 322 (Early Medieval, Byzantine and Romanesque Art), AH 326 (Gothic Arts), HST 326 (Europe, 300-1100), HST 327 (The Reformation), HST 328 (Medieval Europe, 1100-1500), PHL 205 (Medieval Philosophy), and appropriate special topics courses in Christianity studies offered under REL 300.
3. 4 credits from one of the following applications: REL 450 (structured by the Christianity studies director upon request) or an approved directed reading course (REL 490) in Christianity studies.

Note that special topics courses offered in other areas (English, history, philosophy, political science, anthropology, art history) may be applied towards the minor when the topic is on an aspect of religious studies appropriate to the minor.

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*.

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.*

REL 102 Introduction to Judaism (4)
Religious beliefs, practices and philosophies embedded within the major historical experiences (Biblical and Daisporic) 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.*

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 Introduction to Sacred Texts (4)
Explores the various roles played by sacred texts within both Western and Eastern religious traditions. Core texts from these traditions are analyzed and compared, revealing the basic approaches to religious life contained in each.

REL 271 Magic, Witchcraft and Religion (4)
Identical with AN 271.

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. *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 301 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 application integration area. Prerequisite for knowledge application: completion of the general education requirement in the social science or the global perspective knowledge exploration area.*

REL 302 Religion and Literature (4)
Study of world religious literature. May include Greek tragedy, Hindu epics, Dante and Milton. Will treat both use of religious themes in literature and about literature as an expression of religious belief.

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: SOC 100 or 205.

REL 311 The Bible as Literature (4)
Identical with ENG 305. *Satisfies the university general education requirement in the literature knowledge exploration area.*
Prerequisite: WRT 160 with a grade of 2.0 or higher and junior standing.

REL 312 Early Christianity (4)
Exploration of historical, social, biblical literature tracing the rise of Christianity from a sect of Judaism to the dominant religion in the Roman empire during the 5th century CE, utilizing social science, ancient documents, hero stories, community documents and church scholars.

REL 314 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 315 Jews in America (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 316 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 325 Philosophy of Religion (4)
Identical with PHL 325.
Prerequisite: WRT 160 with a grade of 2.0.

REL 350 Philosophies and Religions of Asia (4)
Identical with PHL 350.
Prerequisite: WRT 160 with a grade of 2.0.

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.

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: 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: REL 100, REL 201 and permission of concentration coordinator.

Concentration in Urban Studies

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, HST 301, PS 305, SOC 345.
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; HRD 364; HST 302; PS 307, 350, 353; SOC 315, 331.
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.

Pre-law Studies

Pre-law studies is not a major and students interested in pre-law must select a major. 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 pre-law students.

1. The 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/COM 207; ENG 380; PHL 102 and 103; WRT 380.
2. Oral communication. The following courses are recommended: COM 201, 220, 301, 318 and THA 105.
3. The law in relationship to other disciplines. Suggested courses are: ECN 378; ENV 461; JRN 403; MGT 350; PHL 316, 318, 319; PS 241, 340, 341, 342; SOC/AN 320; and SOC 437.

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 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 Keith Berven, pre-medical studies concentration coordinator, or any of the faculty listed with the concentration, and with an adviser in the College of Arts and Sciences Advising Office for assistance in planning their programs.

Liberal Arts Minor in Science

Coordinator: *Kathleen H. Moore (College of Arts and Sciences)*

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.

Two-science minor

1. Complete at least two of the following course sequences: BIO 111, 113 and 116; CHM 157, 158 (or 167, 168); or PHY 101, 102 (or 151, 152) and 158.
2. Complete at least 8 additional credits from either one science or split between the two sciences. Biology and chemistry courses numbered lower than BIO 111 and CHM 157, respectively, do not apply to the science minor, nor do CHM 201, 300 and BIO 300.

Three-science minor

Complete the following: BIO 111, 113 and 116; CHM 157, 158 (or 167, 168); and PHY 101, 102 (or 151, 152) and 158.

Geography Course Offerings

The following 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.

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: AN 200 or IS 200 or GEO 200.

SCHOOL OF BUSINESS ADMINISTRATION

427 Elliott Hall (248) 370-2957
sba.oakland.edu Fax: (248) 370-4974

Dean: *Mohan Tanniru*

Associate Dean: *Balaji Rajagopalan*

Office of the Dean: *Donna Kellstrom, business manager and director of corporate relations; Robin Michel, development director*

Department chairs: *Mohinder Parkash, accounting and finance; Thomas W. Lauer, decision and information sciences; Anandi P. Sahu, economics; Ravi Parameswaran, management and marketing*

Distinguished professor emeritus: *Karl D. Gregory*

Professors emeriti: *Elefterios Botsas, Daniel N. Braunstein, Ronald Horwitz, Sid Mittra, John Tower*

Professors: *Lizabeth A. Barclay, Mohammed S. Bazaz, Joseph H. Callaghan, Addington Coppin, Mohammad Dadashzadeh, Gadis J. Dillon, David P. Doane, Sherman R. Folland, John W. Henke, Oded Izraeli, Thomas W. Lauer, Paul Licker, J. Austin Murphy, Kevin J. Murphy, Ravi Parameswaran, Mohinder Parkash, Balaji Rajagopalan, Anandi P. Sahu, Howard S. Schwartz, Jonathan Silberman, Miron Stano, Vijayan Sugumaran, Kenneth M. York*

Associate professors: *Henry Aigbedo, Mukesh Bhargava, Xiaodong Deng, Eugene B. Fliedner, Mark W. Isken, Karl Majeske, Karen S. Markel, John Kim, Kieran Mathieson, Cynthia Miree-Coppin, Nivedita Mukherji, Robert Nehmer, Ram Orzach, Sandra H. Pelfrey, R. Mohan Pisharodi, James Serocki, Srinarayan Sharma, Mark Simon, Rajeev Singhal, Kasaundra Tomlin, Ronald L. Tracy, T.J. Wharton*

Assistant professors: *Ranadeb Chaudhuri, Yu Vivienne Chen, Seong-Yeon Cho, Liang Fu, Joy Ruihua Jiang, Hong Qian, Joseph Schiele, Jennifer Thor, Janell Townsend, Jennifer E. Yugo, Ellen Zhu, Xie Zhu*

Special instructors: *Lori Dorko, Donna Free, Frederick Hoffman, Sukanya Rangarajan*

Graduate Program Advisers: *Paul Trumbull, coordinator, graduate business programs, Theawiana English, extension site administrator/adviser; Donna Free, faculty coordinator, masters of accounting program (MAcc)*

Professional and Community Education: *Anandi Sahu, CFP Director*

Undergraduate Program Advisers: *Julie Dermidoff, academic adviser; Kellie Klinck, academic adviser; Laurie Shano, academic adviser*

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 on supporting its mission in the external community as well as provide consultation on goals and objectives.

The board members are:
Craig Stinson, Norman Group GmBH.,Chairman, Board of Visitors
James M. Cavellier, SVP Information Services, Comerica Bank
John R. Crary, Chief Information Officer, American Red Cross
Stuart D. Doyle, Senior Director, Advisory Services, Cisco Systems
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John M. Savio, Vice President, Branch Operations, Oakland University Branch, Michigan State University Federal Credit Union
Douglas Smith, Deputy County Executive, Oakland County
Rebecca R. Smith, Consultant
Mohan Tanniru, Dean, School of Business Administration, Oakland University, ex-officio
Joseph Tori, Owner, g2 Business Development Solutions
Tommi White, Chief Executive Officer, ER-One Partners

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. Toward the achievement of these ends, the SBA promotes collaborative relationships among students, faculty, administrators and employers.

General Information

The School of Business Administration (SBA) 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, 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 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, which 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.

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 with the fall 2011 semester. Students enrolled prior to fall 2011 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 precore, 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 precore 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 precore, 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, 200, 201, 210 and QMM 240, 241 and 250. Of these 31 credits, at least 12 credits must be in the student's major;
7. take the last 8 credits needed to complete 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 located 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 the 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 2011 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:
  a. WRT 160 and its prerequisites;
  b. an intensive writing course in other general education requirements. This category is normally covered for business majors by WRT 382, Business Writing; and
  c. an intensive writing course in the major. This category is normally covered for business majors by MGT 435, Management Strategies and Policies.
- 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 210. The rest of this category is covered by one course ach in arts, foreign language and culture, global perspective, literature, natural science and technology, and Western civilization.
- Knowledge Application: This category is normally covered for business majors by QMM 240, 241 or 250.
- Capstone course: This category is normally covered for business majors by MGT 435, Management Strategies and Policies.
- 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.

Precore 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.

The required writing and precore courses are:

		Credits
WRT 160	Composition II (or complete the writing requirement in another manner)	0-4
COM 201	Public Speaking	
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	4
MIS 100	Business Problem Solving with Information Technology	3
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 and 201)	6-8
ACC 200	Introductory Financial Accounting	4
ACC 210	Managerial and Cost Accounting I	4
QMM 240	Statistical Methods for Business	
or QMM 250	Statistical Methods for Business (a 6 credit course that covers the material of both QMM 240 and 241)	3-6
		28-41

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.

* If a student places into and completes MTH 154 with the required minimum grade, MTH 141 is not required. If a student does not place into calculus, MTH 121 and MTH 122 or MTH 141 and MTH 154 must be completed with the required minimum grade.

The freshman and sophomore years of study for students pursuing the business administration program will be devoted to the writing, general education and precore 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 to be awarded an undergraduate business degree. Applications are filed with Undergraduate Advising, 238 Elliott Hall.

Students who do not apply for major standing during the semester that they are completing the precore requirements run a high risk of registration and major completion difficulties. 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 6 credits completed at Oakland University);
4. A minimum grade of 2.0 in each of the following precore courses or their equivalents: ACC 200, 210; COM 201 or 202; ECN 200 and 201 (or 210); MIS 100; (MTH 061, 062 if required by the math placement); MTH 121, 122; QMM 240 (or 250)
5. Submission of an "Application for Major Standing" for the desired major.
6. Completion of SBC 199 and SBC 299.

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 prep 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 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, the 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 2011/2012 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, ECN 303, POM 343, FIN 322, ORG 331, and MGT 350) required a student to be in major standing or coded as pre-business (see *Admission to Major Standing in Business Administration* for requirements to be coded as pre-business).

		Credits
QMM 241 (or 250)	Statistical Methods for Business II	0-3
WRT 382	Business Writing (or WRT 380 or 381)	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
		35-38

*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 4 credits of independent study (490) courses may be used to meet the major elective requirement. Courses numbered 380 and 480 may be repeated for credit provided the topics are different. Students will be required to complete ACC 399 or ECN 399 or FIN 399 or ORG 399 or MGT 399 or MIS 399 or MKT 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.

Requirements for the major in accounting

Major adviser: *Donna Free*

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 precore courses:		**Credits**
ACC 200	Introductory Financial Accounting	4
ACC 210	Managerial and Cost Accounting I	4
		8
Required major courses:		
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
		12
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)	
		12
		32

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.

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 Masters 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. An adviser should be consulted if this option is selected.

Requirements for the major in business economics

Major adviser: *Anandi P. Sahu*

By combining studies of the basic functional areas of business with the analytical and quantitative methods of economics, the business economics major 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 studies 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.

Required in the precore and core:		**Credits**
ECN 200	Principles of Macroeconomics	
and ECN 201	Principles of Microeconomics	
or ECN 210	Principles of Economics	6-8
ECN 303	Managerial Economics	3
		9-11
Required major courses:		
ECN 302	Intermediate Macroeconomics	3
ECN 304	Consumer and Welfare Economics	3
ECN 405	Econometrics	3
ECN 399	ACHIEVE III Business Economics	0
		9

Electives — Choose four courses, at least one of which is a 400-level course:

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	Economics of International Finance (3)	
ECN 378	Economic Analysis of Law (3)	
ECN 380	Topics in Economics (3)	
ECN 385	Economics of Industries (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)	
		12
		30-32

Requirements for the major in finance

Major adviser: *Austin Murphy*

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 accounting and 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 22 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.

Required in the core:		**Credits**
FIN 322	Managerial Finance I	4
Required major courses:		
ACC 301	Financial Reporting and Analysis*	3
FIN 416	Investment Analysis	3
FIN 422	Managerial Finance II	3
FIN 399	ACHIEVE III Finance	0
		9

*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):**

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 480	Special Topics in Finance (3)	
		9
		22

**ACC 320 (3) or ECN 321 (3) may be substituted for one finance elective.

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, ATB, ECN, FIN, MGT, MIS, MKT, ORG, POM or QMM) and must be chosen from courses numbered 300 or higher; at least 6 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 4 credits of independent study (490 courses) may be used to meet the major elective requirement.

Required major course:		**Credits**
MGT 399	ACHIEVE III General Management	0

Requirements for the major in human resources management

Major adviser: *Karen Markel*

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.

Required in the core:		**Credits**
ORG 330	Introduction to Organizational Behavior	3
ORG 331	Introduction to the Management of Human Resources	3
		6

Required major courses:		
ORG 399	ACHIEVE III Human Resources Management	0
ORG 430	Organizational Research Methods	4
ORG 434	Advanced Human Resources Management	4
ORG 460	Compensation and Benefits	4
		18

Electives — Choose two courses, at least one of which must be a 400-level ORG course:		
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)	7-8
		25-26

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. 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 HRME faculty 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. Mid-term hours and job duties verification -
   - After 140 contact hours, the student must submit documentation of the hours worked, anticipated completion date and job duties. The HRME supervisor's signature is required on this document.

   c. Exit interview -
   - Upon completion of the internship, the student must schedule an exit interview with the faculty internship coordinator.
   - This interview should be scheduled upon completion of the student's application for a degree.
   - If the student is using a previous or current work experience, the student must schedule the exit interview upon verification of the work hours of this employment relationship.
   - Upon completion 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. Capstone Project

   Several options are available for this project. The requirements are available through the major adviser. The project is intended to integrate and apply the major course materials. The project will be designed and evaluated under the advisement of a Human Resources Management faculty member. Project examples include: research projects, service learning assignments, development of an organizational Human Resource case study or completion of HR-related tasks. Each of these options involve a 280 hour commitment. Once the Project is completed and submitted to the coordinating faculty member, written documentation of the completion of the requirement will be provided to the student and the undergraduate advising office within two weeks.

3. Passing the new SHRM Assessment Exam

   Information concerning this Assessment Exam is available from the HRME Coordinator. Once the student submits verification of their passing score to the HRME Coordinator, written documentation of the completion of the requirement will be provided to the student and the undergraduate advising office within two weeks.

Requirements for the major in management information systems

Major adviser: *Xiaodong Deng*

The major in management information systems (MIS) specifies a set of courses that will give students skill with development and use of computer applications, with information processing in organizations, with systems analysis and with the use of computers in management decision-making and support of organizational functions. 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 28 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 MIS course before a MIS major, or any Oakland University student, may begin work in that MIS course.

Required in the pre-core and core:		**Credits**
MIS 100	Business Problem Solving with Information Technology	3
MIS 300	Management Information Systems	3
		6
Required major courses:		
MIS 305	Information Technology Foundation	3
MIS 314	Data and Process Modeling	3
MIS 315	System Design	3
MIS 350	Managing Information Projects	3
MIS 399	ACHIEVE III Management Information Systems	0
		12
Electives — Choose three courses		
MIS 405	Networks (3)	
MIS 418	Network Management (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 446	Business Analysis and Modeling (3)	
MIS 480	Advanced Topics in MIS (3)	9
		27

Requirements for the major in marketing

Major adviser: *Mukesh Bhargava*

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 24 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.

Required in the core:		**Credits**
MKT 302	Marketing	4
Required major courses:		
MKT 353	Marketing Management	4
MKT 399	ACHIEVE III Marketing	0
MKT 404	Consumer Behavior	4
MKT 405	Marketing Research	4
		12
Electives — Choose two courses:		
MKT 406	Integrated Marketing Communications (4)	
MKT 420	Distribution Channels Management (4)	
MKT 430	Personal Selling (4)	
MKT 450	International Marketing (4)	
MKT 470	Business to Business Marketing (4)	
MKT 480	Seminar in Marketing (4)	
		8
		12

Requirements for the major in operations management

Major advisers: *Gene Fliedner, T.J. Wharton*

The major in operations management 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, process management 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.

To fulfill the requirements for the major in operations management, students must be admitted to major standing in operations management, complete the core program and complete at least 22 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 POM 343 and in each prerequisite for an operations management course before an operations management major, or any Oakland University student, may begin work in that operations management course.

Required in the core:		**Credits**
POM 343	Operations Management	4
Required major courses:		
POM 399	ACHIEVE III Operations Management	0
POM 443	Operations Planning and Control	3
POM 450	Operations Strategy	3
		6

Electives Group A (choose at least three of these electives)		
POM 440	Process Management	3
POM 442	Supply Chain Management 1	3
POM 448	Project Management	3
POM 480	Special Topics in Operations Management	3
POM 490	Independent Study	3-4
QMM 440	Management Science	4
QMM 452	Forecasting	4
Electives Group B (choose at most one of these electives)		
MIS 420	Electronic Commerce	3
MIS 442	Issues in Supply Chain Management 1	3
MIS 446	Business Analysis and Modeling	3
ACC 320	Managerial and Cost Accounting II	3
ISE 484	Flexible Manufacturing Systems	4
ISE 485	Statistical Quality Analysis	1
		4
		12-15

[1] Only one of these two courses may be taken.

A total of 4 electives are required from the above two groups.

Bachelor of Science with a Major in Economics

Major adviser: *Anandi P. Sahu*

The curriculum in economics 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 major in business economics (described previously), the Department of Economics offers four economics programs: Bachelor of Arts in Economics (offered through the College of Arts and Sciences), Bachelor of Science in Economics (offered through the School of Business Administration), 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. Bachelor of Science with a Major in Actuarial Science blends of 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 do routine student advising.

Requirements for the bachelor of science degree with a major in economics

To earn the Bachelor of Science degree with a major in economics, students must complete a minimum of 128 credits as follows:

English composition:		**Credits**
WRT 160	Composition II (or complete the writing requirement in another manner as detailed in the general education section of Undergraduate degree requirements)	0-4
WRT 382	Business Writing (or WRT 380 or 381)	4
		4-8
General education requirement:		**28**

See the university general education requirements section of the Undergraduate degree requirements for details on the writing requirement, U.S. diversity and other general education requirements. For economics majors, the social science field category cannot be satisfied with an economics course.

Cognate courses:		**Credits**
MTH 121	Linear Programming, Elementary Functions (or MTH 141)	4
MTH 122	Calculus for the Social Sciences (or MTH 154)	4
MIS 100 or CSE 130	Business Problem Solving with Information Technology	3
ACC 200	Introductory Financial Accounting	4
ACC 210	Managerial and Cost Accounting I	4
QMM 240 and 241 or QMM 250	Statistical Methods for Business I and II Statistical Methods for Business (a 6 credit course that covers the material of both QMM 240 and 241)	6
FIN 322	Managerial Finance I	4
		29

Required courses:		
ECN 200 and ECN 201 or ECN 210	Principles of Macroeconomics Principles of Microeconomics Principles of Economics (a 6-credit course that covers the material of both ECN 200 and 201)	6-8
ECN 302	Intermediate Macroeconomics	3
ECN 303	Managerial Economics	3
ECN 304	Consumer Economics	3
ECN 405	Econometrics	3
		18-20

Electives: 15-16

Choose five economics electives at the 300-level or above, one of which must be at the 400-level. Students taking ECN 150 before ECN 200 or 201, 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 3 credits in ECN 380 or ECN 490 may be counted as economic electives.

General electives:	23-34
	128

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, 122; MIS 100 (or CSE 130); ECN 200 and 201 (or 210) and QMM 240 (or 250);
3. complete ECN 302, 303 and 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 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.

Bachelor of science with a major in actuarial science

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 Economics and the Department of Mathematics and Statistics through the College of Arts and Sciences. See the Department of Economics section in the College of Arts and Sciences portion of the catalog.

Minors

The School of Business Administration offers 12 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 and entrepreneurship minors. The minor in applied technology in business (ATiB) is open only to business and economics majors, and admission to the minor is competitive. See the description of the minor in applied technology in business below for the grade requirements and other features of this 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 entrepreneurship), and to take 300- and 400- level business classes, **non-business students must meet with the minor coordinator and have an approved university concentration/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 6 of these 9 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, 241, 250 and 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, 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.

Minor in accounting

Coordinator: *Donna Free*

The minor in accounting consists of a minimum of the following 20 credits and any prerequisites for these courses: ACC 200, 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.

Minor in applied technology in business (ATiB)

Coordinator: *Kieran Mathieson, Director*

The minor in applied technology in business provides a unique opportunity to combine studies in any business or economics major with the opportunity to gain technology skills. The curriculum consists of four 3-credit courses – ATB 306, ATB 307, ATB 406 and ATB 407. These courses cover a wide range of topics including not only technology application but topics such as project management and strategic planning. Application to the program is restricted to business and economics majors and admission to the program is competitive. Students interested in applying for this minor should contact the program coordinator. The minor consists of 12 credits and any prerequisites for these courses: A minimum grade of 3.0 is required in each of these courses, and a cumulative GPA of 3.00 or better must be maintained to remain in the program.

Minor in business

Coordinator: *Fred Hoffman*

The minor in business consists of a minimum of 20 credits, described as follows, and any pre-requisites for these courses: (Take six of the following seven choices) ECN 150 (or ECN 200 or ECN 201 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.

Minor in economics

Coordinator: *Anandi P. Sahu*

The minor in economics consists of a minimum of 18 credits in economics courses including any prerequisites for these courses. A student must take both ECN 200 and 201 or ECN 210. A student must then complete 12 additional credits in any 300- or 400-level economics (ECN) courses. A minimum grade of 2.0 must be earned in each course in the economics minor and in the prerequisites for each course. This minor is open to all students except economics and business economics majors. **Students taking ECN 150 before ECN 200 or 201, and who subsequently want to minor in economics, should talk to the minor coordinator.**

Minor in entrepreneurship

Coordinator: *Ravi Parameswaran*

The minor in entrepreneurship consists of a minimum of 18 credits in entrepreneurship courses including any prerequisites for these courses: ENT 300, ENT 305, ENT 310, or MGT 300, ENT 320 or ACC 320, ENT 330 or MKT 300 and ENT 340. A minimum grade of 2.0 must be earned in each course in the entrepreneurship minor and in the prerequisites for each course. Students wishing to earn the entrepreneurship minor are encouraged to take either MIS 100 or CSE/CIT 130 to refresh or develop their computer workstation skills. This minor is *not* open to pre-business students, undecided business students, or students holding major standing in the School of Business Administration. Students selecting the entrepreneurship minor cannot earn any other SBA minor. None of the courses in the entrepreneurship minor can be used to fulfill the requirement of any other SBA major or minor. In addition, none of the entrepreneurship 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.

Minor in finance

Coordinator: *Austin Murphy*

The minor in finance consists of a minimum of 13 credits in finance courses including FIN 322 and 9 additional credits in finance (FIN) courses and any prerequisites for these courses (either ACC 301 or ECN 321 may satisfy 3 credits toward the finance minor). The prerequisites for the finance courses normally require up to 26 credits including MTH 121 and 122, ACC 200 and 210, ECN 201, QMM 240 and 241 (or QMM 250). 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.

Minor in human resources management

Coordinator: *Kenneth M. York*

The minor in human resources management consists of a minimum of 18 credits, described as follows: ORG 330, 331 and 434 and 8 additional credits chosen from ORG 430, 431, 432, 433, 460, 470 and 480, and the prerequisites for these courses. The prerequisites for these ORG courses normally require up to 14 credits including MTH 121 and 122, and QMM 240 and 241 (or QMM 250) (or an equivalent statistical sequence). 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.

Minor in international management

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 210 or both ECN 200 and 201; 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.

Minor in management information systems

Coordinator: *Srinarayan Sharma*

The minor in management information systems (MIS) consists of a minimum of 18 credits in the following courses and any prerequisites for these courses: MIS 100 or (MIS 200 or CSE 125), MIS 300, 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.

Minor in marketing

Coordinator: *John Kim*

The minor in marketing consists of a minimum of 20 credits, described as follows: MKT 302, 353, 404, 405, and one course chosen from MKT 406, 420, 430, 470, or 480, and the prerequisites for these courses. The prerequisites for these MKT courses normally require up to 21 credits including ECN 200, MTH 121 and 122, MIS 100, QMM 240 and 241 (or QMM 250) (or an equivalent statistical sequence). 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.

Minor in operations management

Coordinator: *Henry Aigbedo*

The minor in operations management consists of a minimum of 9 credits, described as follows: POM 343 and any two courses chosen from POM 440, 442, 443, 448, 450 and QMM 452 and any prerequisites for these courses. The prerequisites for these courses normally require up to 18 credits including MIS 100 (or MIS 200 or CSE 125, or CSE 130); MTH 121 and 122; and QMM 240 and 241 (or QMM 250). 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.

Minor in quantitative methods

Coordinator: *David P. Doane*

The minor in quantitative methods consists of a minimum of 27 credits, described as follows, and any prerequisites for these courses: CSE 130; MTH 121, and 122; QMM 240 and 241 (or QMM 250 or

STA 226) and any three courses chosen from QMM 440 or 452; POM 448; MIS 446; ECN 405; STA 424. A minimum grade of 2.0 must be earned in each course in the quantitative methods minor and in the prerequisites for each course. This minor is open to all majors.

Policies and Procedures

High school admissions

For entering freshmen, admission to pre-business is restricted to those presenting a 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 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. 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.

Repeats

Repeats of a course: A student can repeat, either at Oakland University or at another approved institution, any business precore or core course in which a 2.0 grade 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. 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 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 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 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 corequisite 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, 238 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 canceled.

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 Coordinator of Undergraduate Advising 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 8 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 a 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 the 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 201, 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)
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.

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, 241, 250 and 452 are 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

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: 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.

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 5 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.

Wall Street Journal Student Achievement Award: This award is presented annually to the graduating senior who has demonstrated the greatest academic and leadership achievement in the SBA. Selection is made by the faculty.

School of Business Administration awards/scholarships

Accounting and Finance Advisory Board Accounting Scholarship: This $1,000 scholarship 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. The award can be applied against Oakland University tuition.

Accounting and Finance Advisory Board Finance Scholarship: This $1,000 scholarship 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. The award can be applied against Oakland University tuition.

Alumni Association Endowed Scholarship Fund: This $3,000 award is available to junior or senior business majors with at least 3.00 GPA in their major. See applications for other criteria.

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.

Bud Kulezsa Family Endowed Scholarship Fund: This $1,000 scholarship is awarded to the undergraduate accounting major who has completed at least two accounting courses beyond ACC 210, has at least a 3.00 overall GPA, and has at least a 3.00 GPA in accounting courses. Foreign language ability and evidence of an entrepreneurial spirit will enhance the application.

Derderian Kann Seyferth & Salucci: This $1,000 tuition award is open to undergraduate accounting majors with a minimum GPA of 3.00 or above.

Diane and Michael Grieves Endowed Diversity Scholarship: This estimated $1000 scholarship will be awarded to economically disadvantaged full-time (minimum 12 credits) undergraduate 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 a 2.60 cumulative GPA at Oakland University, be a US citizen or legal permanent resident and applied for Financial Aid in the distribution year.

Dicron Tafralian Memorial Scholarship: This $1,000 scholarship is awarded annually, on a merit basis, to a continuing accounting major at Oakland University. 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 Award: This $1,000 scholarship is awarded annually to an undergraduate accounting major. Candidates must have at least junior standing, a 3.00 or higher GPA in courses taken at Oakland University, and have an interest in pursuing a career in public accounting. The scholarship can be used only for tuition.

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.

Gale Blank Copple Endowed Economics Scholarship: This $1,000 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 senior standing 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 3.00 and must have an overall GPA of at least 3.00.

Jon & Gwyn Hartman Scholarship: This scholarship awards $5,000 to a junior or senior accounting or finance major who is a full-time student with at least 45 credits at Oakland University and a GPA of at least 3.20.

Marvin L. Katke Scholarship: This scholarship awards a junior or senior business major with at least a 3.00 GPA who demonstrates outstanding academic achievement and extra-curricular and/or civic involvement. This scholarship normally awards $2,500.

Lorenz Awards for Rising Seniors: These awards are to recognize academic excellence in SBA juniors who are moving into their senior year. A full tuition scholarship for the senior year will be awarded to the junior student who has the highest overall GPA in the SBA; $2,000 goes to the student with the second highest GPA; $500 awards go to the two students with the third and fourth highest GPA.

Meer Scholarship: This $1,000 scholarship award is open to an undergraduate student at the University and admitted to major standing in the School of Business Administration. Candidates must have a 2.80 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.

Paul F. Lorenz/Texas Instruments Excellence Awards: These awards are based on undergraduate academic excellence. Awards of $1,000 and $500 will be made to two graduating seniors with the highest overall GPAs.

Professor Ronald M. Horwitz Outstanding Finance Student Scholarship Award: This $1,000 award is given to the graduating 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.

SBA Tower Scholarship: This $2,000 scholarship is awarded to an undergraduate student pursuing a degree in the School of Business Administration.

Stephan and Rita Sharf Scholarship: A scholarship awarded annually to an upper division student who will be enrolled full-time in the SBA. Selection is based upon academic achievement and demonstrated financial need. This scholarship normally awards $2,000.

The Catherine Tyler International Scholarship: This $1,000 tuition award was established in memory of Catherine L. Tyler, Ph.D., who was an Assistant Professor of Management in the School of Business Administration at Oakland University. This award is open to undergraduate students at the University and admitted to major standing in the School of Business Administration who will use the award to participate in a University approved study abroad or international internship program.

TMBKS Family Scholarship Award – Accounting: The $1,500 tuition/book assistance award is available to qualified undergraduate accounting majors who has exhibited an outstanding combination of academic performance and extracurricular activities.

TMBKS Family Scholarship Award – DIS: The $1,500 tuition/book assistance award is available to qualified junior or senior students who have achieved major standing in DIS.

Volkswagen of America Corporate Leadership Scholarship Award: These scholarship awards were established to assist talented students pursuing a career in business. Candidates must be full-time students, have achieved junior standing, have a GPA of 3.00 or above, and have demonstrated financial need. This scholarship normally awards $2,000.

Course Offerings

Following are descriptions of the courses offered by the School of Business Administration. Required precore and core courses for students majoring in the business programs are generally offered each fall, winter and summer semesters.

Except as noted, the 300- and 400-level ACC, FIN, ATB, MGT, MIS, MKT, POM and QMM courses require that the student have major standing in business or an approved concentration/ minor authorization form that includes the course in order to register for the course. Economics courses at the 300-400 level require major standing only for business majors. The 300-level courses should be taken during the junior year (56-90 credits). Non-business majors are allowed to take ENT courses. Courses titled "Survey of" are only permitted for non-business majors pursuing a business minor. Except for courses that fulfill the business minor, 300- or 400-level courses can only be taken by non-business students if they meet the prerequisites (except for major standing) and the course is listed on an approved university concentration/minor authorization form.

The 500-level accounting courses are designed as advanced electives for undergraduate accounting majors and as electives for students in the Masters of Accounting program. The school 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*.

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: (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: 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: 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: 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: 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: ACC 310 with a minimum grade of 2.0.

ACC 318 Accounting Information Systems: Planning and Analysis (3)
Focuses on business modeling and the integration of accounting systems with other information systems in the organization. Students should be capable of using the knowledge and modeling skills acquired in this course in order to develop modern, technologically relevant accounting information systems. The Systems Development Cycle is used as the course's logical framework, while the Information Engineering set of methodologies is used to model real-world business systems.
Prerequisite: 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: 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: 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: 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: ACC 311 and ACC 318, with a minimum grade of 2.0 in each course.

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: 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: (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: ACC 301 or ACC 311 with a minimum grade of 2.0 and major standing.

ACC 490 Independent Study (1-3)
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: an overall GPA of 3.00 or better, major standing and an approved contract prior to registration.

The following graduate level accounting courses are open to undergraduate accounting majors with permission of the Faculty Coordinator of the Masters of Accounting Program.

ACC 505 Business Law for Accountants (3)
The course covers numerous areas of law that are important in the context of a business entity operating in the United States. It generally will cover topics suggested for business law on the Uniform CPA Exam. Students cannot receive credit for ACC 505 if they have already received credit for MGT 450.

ACC 521 Federal Income Tax II (3)
The study of federal income tax laws relating to corporations, partnerships, individuals, estates and trusts. Topics include the formation, operation and taxation of corporations, partnerships and other taxable entities. It generally will cover topics suggested for taxation on the Uniform CPA exam.

ACC 526 Accounting Information Systems: Audit and Control (3)
This course deals with audit and control aspects of information systems. Students will study the risks, controls, audit techniques and computer fraud detection techniques related to key information systems areas and will perform audit tests and fraud prevention and detection procedures. Student must have completed a course in accounting information systems and auditing.
Prerequisite: ACC 318 and ACC 411 with a minimum grade of 2.0 in each course and major standing or ACC 518 and admission to a graduate business program.

ACC 533 Accounting Information Systems: Analysis and Design (3)
Students will learn how to analyze modern technologically relevant financial information systems. The Systems Development Life Cycle (SDLC) is used as the logical framework and appropriate modeling technologies are used to analyze and design real-world business systems. Student must have completed a course in accounting information systems.
Prerequisite: ACC 318 with a minimum grade of 2.0, and major standing or ACC 518 and admission to a graduate business program.

APPLIED TECHNOLOGY IN BUSINESS

ATB 306 Business and Information Technology Foundations (3)
The role of information technology (IT) in advancing organizational goals and discussion of how IT solutions to solve business problems are crafted will provide the backdrop for introducing students to a number of tools and methodologies. These include: modeling organizations and their competitive environment, modeling business processes, conceptual data modeling, flowcharting, and program design and development using VBA and VBScript.
Prerequisite: junior standing and acceptance into the ATIB program.

ATB 307 IT Project Management (3)
Students are assigned corporate sponsored projects so they can practice their problem solving and project management skills, with special focus on interviewing, task identification, time/resource estimation, setting milestones, and project presentation. Topics covered also include executive and knowledge-based systems and inter-organizational systems.
Prerequisite: ATB 306.

ATB 406 Information Management (3)
Students continue to work on corporate student projects and practice additional skills such as meeting management, implementation and user training. Additional focus is innovative uses of IT, effective use of communications and networking, and management of diverse information needs as part of an organization's strategy.
Prerequisite: ATB 307.

ATB 407 Corporate Internship (3)
Students work at a corporate site and work on a specific project that has been agreed to by the program director and the corporation. The students manage the project on their own using a variety of skills they have acquired during the prior three semesters in this program.
Prerequisite: ATB 406.

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 back- ground for the Professional Engineering (PE) examination. Economics or business majors 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.)*
Prerequisite: none.

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, 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 social science knowledge exploration area.* Generally offered every semester.
Prerequisite: 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 and term.)*
Prerequisite: high school algebra.

ECN 210 Principles of Economics (6)
Provides an introduction to principles of macroeconomics and microeconomics, covering the same topics as ECN 200 and ECN 201 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.)*
Prerequisite: high school algebra and a GPA of 3.00 or better.

ECN 250 Economic 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: 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: (MTH 122 or MTH 154) and (ECN 200 and ECN 201) 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 requirement 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: (ECN 200 and ECN 201) 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)
This 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: 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: 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: 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: 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 semesters).*
Prerequisite: 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.*
Prerequisite: 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: ECN 150 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: 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: (ECN 200 and ECN 201) 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.*
Prerequisite: (ECN 200 and ECN 201) or ECN 210 with a minimum grade of 2.0 in each course.

ECN 374 International 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: (ECN 200 and ECN 201) or ECN 210 with a minimum grade of 2.0 in each course.

ECN 378 Economic Analysis of Law (3)
Economics 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: (ECN 200 and ECN 201) 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: (ECN 200 and ECN 201) 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: (ECN 200 and ECN 201) 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: 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: (QMM 241 or QMM 250 or STA 226) and ECN 303 with a minimum grade of 2.0 in each course.
Corequisite: weekly lab to accompany ECN 405.

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: (QMM 241 or QMM 250 or STA 226) 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. 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 even years.
Prerequisite: (QMM 250 or QMM 241 or STA 226) 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: ECN 302 with a minimum grade of 2.0.

ECN 450 Risk Management (3)
The course reviews interest rate theory, Poisson, exponential and probability models and then develops and uses a variety of actuarial and risk models such as contingent payment models, and frequency, severity and aggregate claims models. Usually offered during summer semester with sufficient demand.
Prerequisite: FIN 322 and (STA 226 or QMM 250 or QMM 240) with a minimum grade of 2.0 in each course.

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: (QMM 241 or QMM 250 or STA 226) 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: ECN 303 with a minimum grade of 2.0.

ECN 490 Independent Study (1-3)
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: overall GPA 3.00 or better and an approved contract prior to registration.

ENTREPRENEURSHIP

ENT 300 Foundations of Entrepreneurship (3)
Addresses challenges of creating and sustaining organizations in today's global environment. Provides overview of the role and importance of entrepreneurship in society. Examines how individuals use entrepreneurial skills to craft responses to societal needs. (Not open to pre-business or business-undecided students or students with major standing in business.)

ENT 305 Creativity and Innovation (3)
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. (Not open to pre-business or business-undecided students or students with major standing in business.)

ENT 310 Structure and Management Behavior in the Entrepreneurial Organization (3)
Addresses organizational structure and design as they relate to new ventures. Focuses on the decision-making processes of entrepreneurs. Leadership patterns and group dynamics will be examined as they relate to the development of effective entrepreneurial based businesses. (Not open to pre-business, business-undecided students or students with major standing in business).
Prerequisite: sophomore standing.

ENT 320 Accounting and Finance for the Entrepreneurial Organization (3)
Application of accounting and financial management principles to small business. Addresses use of financial tools including Income Statements, Balance Sheets and Statements of Cash Flow. Reviews

capital needs of start-up, small business enterprises and sources of capital. (Not open to pre-business, business undecided students, students with major standing in business).
Prerequisite: junior standing.

ENT 330 Marketing for the Entrepreneurial Organization (3)
Strategic marketing approach emphasizing the design of entrepreneurial marketing plans, innovation and new product or service processes. Emphasis given to integration of product, price, place, and promotion goals in the development and implementation of marketing plan and programs. (Not open to pre-business, business-undecided students, students with major standing in business).
Prerequisite: junior standing.

ENT 340 Entrepreneurship Capstone: Writing the Business Plan (4)
Students will write a business plan that integrates all internal aspects of a business while recognizing the external environment. The financial component of the business plan is emphasized. Other concepts include competitive analysis, competitive positioning, market segmentation, and issues related to new venture launch. Case studies will be used.
Prerequisite: ENT 300, ENT 305, and (ENT 310 or MGT 300) and (ENT 320 or ACC 200) and (ENT 330 or MKT 300), junior or senior standing.

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: 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.
Prerequisite: (ECN 210 or ECN 200 and ECN 201) and ACC 210 and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course.

FIN 399 Achieve III – Finance (0)
Guide students through the job search process within the Finance major.
Prerequisite: 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.
Prerequisite: FIN 322 and (ACC 301 or ACC 310) 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: FIN 322 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: FIN 322 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: FIN 322 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: FIN 322 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.
Prerequisite: FIN 322 and (ACC 301 or ACC 310) with a minimum grade of 2.0 in each course.

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: FIN 322 with a minimum grade of 2.0 and major standing.

FIN 490 Independent Study (1-3)
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: 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: completion of the university writing foundation requirement. Course is only recommended for non-SBA majors or business students who have not achieved major standing only.

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.*
Prerequisite: none.

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 organizations, corporate culture, and organizational change and development.
Prerequisite: sophomore standing.

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: ECN 210 or (ECN 200 and ECN 201) and (COM 201 or COM 202) and ACC 200 with a minimum grade of 2.0 in each course and junior standing.

MGT 399 Achieve III – General Management (0)
Guide students through the job search process within the General Management major.
Prerequisite: 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 multinational firms cope with the complex international environment.
Prerequisite: ECN 210 or (ECN 200 and ECN 201), 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 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 the capstone experience. 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: (ENG 382 or WRT 382) 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: 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 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: major standing in the SBA.

MGT 490 Independent Study (2, 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: an overall GPA of 3.00 or better, major standing in the SBA and an approved contract prior to registration.

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: ECN 210 or (ECN 200 and ECN 201) and (MIS 100 or MIS 200 or CSE 125) and (ACC 200 or ACC 300) with a minimum grade of 2.0 in each course.

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.
Prerequisite: Sophomore Standing, and MIS 100 or CIT 120.

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: MIS 300 with a minimum grade of 2.0.

MIS 314 Data and Process Modeling (3)
Introduces the software development cycle and information requirements analysis. Covers various kinds of data modeling, such as entity-relationship diagramming and object modeling. Examines process modeling with UML methods, such as case analysis. Includes projects.
Prerequisite: MIS 305 with a minimum grade of 2.0 and major standing.

MIS 315 Systems Design (3)
Continuation of MIS 314. Covers system design (translating requirements specifications and process models into design specifications, emphasizing object-oriented techniques), database design (creating relational databases from data models), interface design, and test software. Includes projects.
Prerequisite: 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: MIS 314 with a minimum grade of 2.0.

MIS 399 Achieve III – Management Information Systems (0)
Guide students through job search process within the Management Information Systems major.
Prerequisite: 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: MIS 300 and MIS 305 with a minimum grade of 2.0 in each course.

MIS 418 Network Management (3)
This course provides a general overview of communications network design. Relevant data communication hardware and software characteristics are examined. Students are introduced to network models, and design of local area networks and wide area network along with Intranet and Extranet. The impact of communications technology on organizations as well as trends in the telecommunications industry is explored.
Prerequisite: MIS 405 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: 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: 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 different solution architectures and their relative advantages and disadvantages. Several 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: MIS 422 with a minimum grade of 2.0 or instructor's permission.

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: MIS 305 with a minimum grade of 2.0 and major standing.

MIS 436 Decision Support Systems (3)
Using data, model and information systems to support managerial decision making.
Prerequisite: MIS 300 and MIS 305 with a minimum grade of 2.0 in each course.

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: MIS 300 and POM 343 with a minimum grade of 2.0 in each course.

MIS 446 Business Analysis and Modeling (3)
Focuses on developing and using spreadsheet based models and data analysis tools for supporting managerial decision-making. Topics include Monte-Carlo stimulation, optimization, and spreadsheet application development within the context of business problem solving.
Prerequisite: MIS 300 and QMM 241 or QMM 250 or (STA 225 and STA 226) with a minimum grade of 2.0 in each course, and major standing.

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.
Prerequisite: MIS 300 and MIS 305 with a minimum grade of 2.0 in each course.

MIS 490 Independent Study (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: overall GPA 3.0 and approved contract.

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: junior 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: ECN 150 or ECN 201 or ECN 210 and (RHT 160 or WRT 160) 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 353 Marketing Management (4)
A study of the overall marketing strategies pertaining to problems experienced in today's economy. Uses the case study method to analyze these problems. This course requires a knowledge of spreadsheets and financial statements.
Prerequisite: 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 399 Achieve III – Marketing (0)
Guide students through the job search process within the marketing major.
Prerequisite: 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: 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: MKT 302 and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course and junior standing and major standing.

MKT 406 Integrated Marketing Communications (4)
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: 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 (4)
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: MKT 302 with a minimum grade of 2.0, major standing and junior standing.

MKT 430 Personnel Selling (4)
Focuses on the activities of personnel 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: MKT 302 with a minimum grade of 2.0 and 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 (4)
The application of marketing principles to problems associated with marketing products and services to different nations. Cases in international marketing will be analyzed.
Prerequisite: 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 470 Business to Business Marketing (4)
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: MKT 302 with a minimum grade of 2.0, major standing and junior standing.

MKT 480 Seminar in Marketing (4)
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.
Prerequisite: MKT 302 with a minimum grade of 2.0, and junior standing.

MKT 490 Independent Study (2, 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: MKT 302 with a minimum grade of 2.0, major standing and junior standing. An overall GPA of 3.00 or better and an approved contract prior to registration.

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: ECN 210 or (ECN 200 and ECN 201) and (COM 201 or COM 202), 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 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: 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 (0)
Completion of the HR Experience Requirement.
Prerequisite: 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: ORG 331 and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course.

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: 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: 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: ORG 331 and (QMM 241 or QMM 250 or STA 226) with a minimum grade of 2.0 in each course.

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: ORG 331 and (QMM 241 or QMM 250 or STA 226), with a minimum grade of 2.0 in each course.

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: ORG 331 and (QMM 241 or QMM 250 or STA 226) 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: 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: 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 490 Independent Study (2, 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: major standing, junior standing, an overall GPA of 3.00 or better and an approved contract prior to registration.

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.
Prerequisite: 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: (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 and major standing.

POM 399 Achieve III – Operations Management (0)
Guide students through the job search process within the Operations Management major.
Prerequisite: major standing and SBC 199 and SBC 299.

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 improvement. Organizational efforts to

continuously improve processes and enhance customer satisfaction are examined including topics of leadership, change management, lean, total quality management.
Prerequisite: POM 343 with a minimum grade of 2.0.

POM 442 Supply Chain Management (3)
Examines the management, planning, and analysis of both inbound and outbound material and information flows along with associated services. Specifically, this course will examine purchasing, materials management, and distribution functions used to support the physical flow and the offering of goods and services both domestically and internationally.
Prerequisite: 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: POM 343 with a minimum grade of 2.0.

POM 448 Project Management (3)
Project management topics examined will include: project selection, alternative project organizational structures, project planning, work breakdown structures, the role of the project manager, leadership styles, teamwork approach, PERT/CPM networks. Ganett charts, critical path analysis, float times resource allocation, least-cost scheduling, time-cost tradeoff analysis, monitoring and controlling projects, and risk management.
Prerequisite: 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.
Prerequisite: POM 343 and (POM 440 or POM 442 or POM 443 or POM 448) with a minimum grade of 2.0 in each course, 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: 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: overall 3.0 GPA and approved contract.

QUANTITATIVE 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: 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: (MTH 122 or MTH 154) and (STA 225 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: (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 (4)
Provides an introduction to the use of quantitative modeling and analysis tools for complex business problems. Techniques from the field of management science are combined with state of the art software including spreadsheet based optimization, decision analysis and simulation packages to give the student a practical, usable toolkit for business problem solving.
Prerequisite: QMM 240 or QMM 250 or STA 225 with a minimum grade of 2.0 in each course.

QMM 452 Forecasting (4)
Survey of time-series forecasting, including trend-fitting, exponential smoothing, decomposition, ARIMA, and neural nets. Econometric topics include seasonal binaries, autocorrelation, lagged variables, multicolinearity, causality tests, and vector autoregression. Industry case studies and discussion of current economic conditions and managerial implementation. Extensive use of computer packages. Frequent written projects and oral presentations.
Prerequisite: QMM 241 or QMM 250 or STA 226 with a minimum grade of 2.0 in each course.

QMM 490 Independent Study (2, 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 semester.* May be repeated for a total of 8 credits.
Prerequisite: overall GPA of 3.00 or better and an approved contract.

SBC SCHOLAR

SBC 130 SBA Freshman Scholar 1 (0)
High school seniors wanting to major in business are invited to participate in the SBA Freshman Scholars program based upon their high school record and ACT scores. This is the first of three courses in the SBA Freshman Scholar program. Offered every fall semester.
Prerequisite: approval of a School of Business undergraduate adviser; and freshman standing.

SBC 140 SBA Freshman Scholar 2 (0)
High school seniors wanting to major in business are invited to participate in the SBA Freshman Scholars program based upon their high school record and ACT scores. This is the second of the three courses in the SBA Freshman Scholars program. Offered every winter semester.
Prerequisite: approval of the Undergraduate Leadership and Development Center.

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.
Corequisite: SBC 299.

SBC 230 SBA Sophomore Scholar 1 (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: 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 250 SBA Freshman Scholar 3 (0)
This is the third of the three courses in the SBA Freshman Scholar program and should complete the student's transition to major standing. Not open to Freshman Scholars who choose to become Sophomore Scholars. Offered every fall semester.
Prerequisite: SBC 140. Approval of the Undergraduate Leadership and Development Center.

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 or Corequisite: 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: 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: 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: 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: 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: 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: 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: 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: 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: major standing and permission of the Leadership and Development Center.

SBC 491 SBA Research Scholar 1 (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: approval of the Undergraduate Leadership and Development Center.

SBC 492 SBA Research Scholar 2 (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: SBC 491.

SBC 495 SBA Independent Study (1 to 4)
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: 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.

SBC 499 Achieve IV (0)
Acclimation to workplace environment.
Prerequisite: ACC 399, ECN 399, FIN 399, MGT 399, MIS 399, MKT 399, ORG 399, or POM 399.

SCHOOL OF EDUCATION AND HUMAN SERVICES

415 Carlotta and Dennis Pawley Hall (248) 370-3050
Fax: (248) 370-4202

Dean: *Louis B. Gallien*

Associate Dean: *Mary T. Stein*

Office of the Dean: *Judeen Bardos, assistant director PSA/Urban Partnerships; Jennifer Bellini, adviser; Andreea Bordeianu, adviser, OU at Macomb; Barbara B. Campbell, coordinator, Educational Resource Laboratory; Pamela Day, assistant dean; Richard DeMent, information technology specialist; Patrick Faircloth, SEHS Counseling Center coordinator; Helen Gauntt, coordinator, field placements; Sherrill M. Karppinen, director, field placements; Pam Kellett, Director of operations, OU at Macomb; Julianne Leigh, director of budget, OU at Macomb, and director, Pawley Institute; Donna Malaski, adviser; Nichole Moninger, Director of Teacher Education Advising Services; Marvella Ramsey, business manager/compliance officer PSA/Urban Partnerships; Lisa A. Reeves, executive director, professional development; Linda Robak, director, professional development; David Secord, coordinator, field placements; Mildred Taylor, director PSA/Urban Partnerships; June Wuopio, administrative coordinator PSA/Urban Partnerships*

Adult Career Counseling Center: *Department of Counseling, Luellen Ramey, director*

Ken Morris Center for the Study of Labor and Work: *Michael P. Long, program director*

Lowry Center for Early Childhood Education: *Julie Ricks-Doneen, faculty director*, *Department of Human Development and Child Studies; Carol Swift, chair*

Michigan Reading Recovery Center: *Department of Reading and Language Arts, Mary Lose, director*

Oakland University Center for Autism Research, Education, and Support (OUCARES): *Carol Swift, chair*

School of Education and Human Services Counseling Center: *Department of Counseling, Lisa Hawley, chair; Luellen Ramey, director; Patrick Faircloth, coordinator*

School of Education and Human Services Reading Clinic: *Department of Reading and Language Arts, James Cipielewski, chair*

Programs Offered

The School of Education and Human Services offers programs designed to prepare students for careers in teaching and related human service activities. 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, counseling, early childhood education and educational leadership, the Education Specialist in school administration, 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 provide 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/.

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), and Master of Arts in Teaching with elementary or secondary certification. The HRD Advising Office at 435B/430C Pawley Hall, (248) 370-3066, is responsible for providing academic advising and career counseling for students in the Bachelor of Science degree program in Human Resource Development.

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. Patrons are provided with a functional setting for the examination, study, research, development, production and evaluation of instructional materials and technologies. Workshops, seminars and consultation services in instructional technology and research strategies are available.

Field Placements and Internships

The Office of School and Field Services, 385 Pawley Hall, (248) 370-3060, oakland.edu/oakland/ouportal/index.asp?site=55), is responsible for the placement of pre-service field students and interns in elementary, secondary, art and music education.

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, taught at on- and off-campus locations, are offered 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, provides year-round programs for young children, toddlers through kindergarten-age. The center is a research and training facility for students and faculty concerned about child growth and development.

Michigan Reading Recovery Center

The Michigan Reading Recovery Center, 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.

Oakland University Center for Autism Research, Education and Support

OUCARES integrates academic course work, knowledge and research with hands-on work in the community to prepare professionals to be leaders in the autism community. Through these academic and service programs, Oakland University also provides supportive individual and family programs. OUCARES, housed in the Schools of Education and Human Services, encourages the exchange of ideas relating to the education and support of individuals with Autism Spectrum Disorder as well as provides services and support needed to improve daily living. Call (248) 370-2424 for more information.

Professional Development and Education Outreach

The Professional Development Office, 373 Pawley Hall, (248) 370-3033 or oakland.edu/pd, coordinates off-campus courses, certificate, distance/on-line learning, and other programs for teachers, school administrators, counselors, career changers, human resource personnel, workforce development specialist and training and development professionals. As an outreach unit of the School of Education and Human Services, the office creates partnerships with organizations desiring university credit or continuing education units for staff development programs.

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.

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 on 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 1 to 12 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 supervises each clinic. Instruction typically focuses on comprehension, word recognition (including phonics), writing, literature, study skills, and oral language.

DEPARTMENT OF COUNSELING

491B Pawley Hall (248) 370-4179
Fax: (248) 370-4141

Chair: *Lisa D. Hawley*

Professors emeriti: *Jane S. Goodman, Howard Splete*

Professors: *James T. Hansen, Mary L. Otto*

Associate professors: *Thomas W. Blume, Michael P. Chaney, Jr., Elyce A. Cron, Robert S. Fink, Lisa D. Hawley, Luellen Ramey*

Assistant professors: *Erin Binkley*, *Mary Rose Day, Todd W. Leibert, Brian J. Taber*

Visiting assistant professor: *Kristin Smiley*

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 Offering

The department offers this selected course as warranted by student need. 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 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)
Introduction to 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

Chairperson: *Carol A. Swift*

Professor: *Ronald M. Swartz*

Associate professors: *Sandra M. Alber, Ambika Bhargava, Janet E. Graetz, Darlene Groomes, Andrew S. Gunsberg, James M. Javorsky, M. Shannan McNair, Sherri L. Oden, Richard C. Pipan, Erica A. Ruegg, Carol A. Swift*

Assistant professors: *Julie Ricks-Doneen, Sunwoo Shin*

Within the School of Education and Human Services, the faculty of the Department of Human Development and Child Studies offers courses in educational foundations and special education at the undergraduate level for students pursuing a career in teaching. The department houses master's degree programs in early childhood education and special education; these graduate programs can provide teaching certificate endorsements and/or professional education certification requirements. The department also offers a doctor of philosophy degree in early childhood.

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*.

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: 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: 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: EC 320.

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: EC 320.

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: EC 320.

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.
Prerequisite: EC 320.

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.

FOUNDATIONS OF EDUCATION

FE 301 Human Nature (4)
An analysis of human nature through evolutionary, developmental, cultural and philosophical perspectives. Implications for the helping professions.

FE 310 Social and Philosophical Issues in Elementary Education (4)
Study of elementary education in broad perspective, as both an interpersonal activity and a social institution. Topics include immediate and ultimate aims of elementary education, social and cultural differences within and between schools, and assumptions underlying school policy. Includes a required field experience.
Prerequisite: admission to major.

FE 315 Educational Psychology for Elementary Teachers (4)
Incorporates and places into perspective learning theories, developmental theories, biological theories and evaluation, with emphasis on the effects of varied qualities of experience during childhood and early adolescence. Includes a required field experience.
Prerequisite: admission to major.

FE 344 Social and Philosophical Issues in Secondary Education (4)
Study of secondary education in broad perspective, as both an interpersonal activity and a social institution. Topics include immediate and ultimate aims of secondary education, social and cultural differences within and between schools, and assumptions underlying school policy.

FE 345 Educational Psychology for Secondary Teachers (4)
Psychological factors in learning and development are examined in lectures, class discussions and observations. These may be observations of actual teaching in the schools, or of videotapes of teaching. Attention to regular and exceptional development during the adolescent years. Required field experience: 30 clock hours of observation and interaction in local secondary classrooms in the student's minor area during the semester enrolled.
Prerequisite: admission to secondary education program.

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.

SPECIAL EDUCATION

SE 355 Identifying Learning and Behavior Differences in Students (4)
Familiarizes students with the characteristics of all types of exceptional students, including the gifted and talented. Introduces special education law and services for persons with special needs. Requires completion of assignments in the field such as informal observation and assessment techniques for determining individual differences.
Prerequisite: Admission to elementary education major; EED 354, EED 420, FE 310, FE 315, IST 396 and one from EED 305, EED 470 or MTD 301 or admission to studio art major.
Corequisite: RDG 414 except for studio art majors.

SE 401 Introduction to Students with Special Needs (4)
Introduction to special education, atypical children, individual differences, learner environment and instructional adaptations.
Crosslisting with SE 501.

DEPARTMENT OF HUMAN RESOURCE DEVELOPMENT

435A Pawley Hall
(248) 370-4109
Fax: (248) 370-4095
Internet: oakland.edu/sehs/hrd

Chairperson: *Michael P. Long*

Professors emeriti: *F. James Clatworthy, William C. Fish, William F. Moorhouse, Robert G. Payne*

Professor: *Susan M. Awbrey*

Associate professors: *Michael P. Long, James Quinn, Chaunda L. Scott, Tomas R. Giberson*

Assistant professors: *Nancy Hastings, William Solomonson*

Special instructor: *Mark Doman*

The Department of Human Resource Development (HRD) 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, 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 435B and 430C Pawley Hall, (248) 370-3066. To avoid delays, students are encouraged to seek advising prior to early registration periods. A graduation audit should be obtained from the academic adviser at the beginning of the student's senior year (one year before planned graduation). The responsibility for meeting graduation requirements rests with the student.

Degree requirements - major in human resource development

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.

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) with a minimum grade of 2.8 in each HRD required course.

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.

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	Technology Applications in HRD	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	4
		32

B. HRD Focus Area Courses (32 credits)

The student may take up to eight credits of HRD Focus Area courses before completion of the core courses and admission to major standing. Additional HRD Focus Area courses may not be taken without admission to major standing. 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 440	Strategic Planning	4

TRAINING & DEVELOPMENT

*HRD 423	Instructional Methods	4
HRD 307	Presentation and Facilitation	4
HRD 402	Program Evaluation	4
HRD 472	Technology Based Instruction	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	Intro to Public Sector Labor & Employment Rel	4
HRD 322	The Study of Labor and Work	4
HRD 326	Collective Bargaining & Dispute Resolutions	4
HRD 327	Employee Benefits	4
HRD 328	Civil Rights & Regulations	4
HRD 336	Behavioral Problems in Employment	4
		44

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 completion of a professional internship, a research internship, a project internship or a combination of two or three of these options. Applications for internship 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. Internship must be completed with a minimum grade of 2.8.

Professional internship

In order for a student to complete a professional internship, 8 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 8 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 previously 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 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 HRD department.

Project internship

A project internship of 8 credits may be completed by students who have completed a minimum of two (2) years of work in the field of Human Resources or are subject to special circumstances. To qualify for a project internship, students are required to have previously 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 HRD department.

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 & Interaction within Organizations	4
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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.

1. Course Requirements (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 & Regulations (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)
      OSH 235 Occupational Safety and Health Standards (3)

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 applied leadership skills

The School of Education and Human Services (Department of Human Resource Development) 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 allow students to develop an academic understanding of leadership. Then, secondly, 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 8 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

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	Communication Theory (4)
COM 305	Interpersonal 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

COM 220	Public Speaking on Public issues (4)
WGS 300	Women in Transition (4)
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

ENT 310	Structure and Management Behavior in the Entrepreneurial Organization (3)
HRD 320	Introduction to Labor & Employment Relations (4)
HRD 401	Change Process in Organizations (4)
MGT 300	Survey of Management (3)
ORG 330	Introduction to Organizational Behavior (3)
PS 300	American Political Culture (4)

Students may want to consider planning their course work in a means 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 Dr. Margaret Pigott, Director of International Education, for opportunities.)

Related minors and concentrations

Students who wish to obtain more than one minor 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 Human Resource Development. This means that one course cannot be used to meet the requirements of an HRD major and two HRD department minors or to meet the requirements of all three HRD department minors.

Departmental honors

HRD departmental 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 HRD Department courses (excluding HRD 499).

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*.

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: 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 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 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 Technology Applications in HRD (4)
Examines trends in technology that are transforming HRD practices, including HRIS, portals, knowledge management, service centers, and distance learning. Explores building a technology plan and using technology strategically within the organization.
Prerequisite: 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: 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 336 Behavioral Problems in Employment (4)
Examination of a variety of problem behaviors in the workplace, including substance abuse, violence and stress, and their causes. Focuses on identifying problem behaviors, developing individual and organizational-level interventions and how to evaluate the success of such programs.

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. Formerly HI 351. *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: 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: WRT 160 or equivalent.

HRD 365 Interviewing in the Workplace (4)
Examines fundamental principles and behaviors influencing workplace interviewing. Featured topics include active listening, questioning techniques, and structuring interviews. Skill practice opportunities are provided for needs assessment, behavioral, counseling, performance, conflict mediation and recruitment/selection interviews. Formerly HI 365.
Prerequisite: HRD 306 and HRD 351.

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: WRT 160 or equivalent.

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.
Replaces HRD 362.

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: permission of a faculty sponsor by application to department.

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: 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 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: 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: 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: 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: course work or experience in the seminar topic.

HRD 472 Technology-Based Instruction (4)
Examines concepts, strategies and applications of multimedia and web-based instruction. Explores the design and development of computer-based instruction, popular authoring tools, roles of instructors and learners, and characteristics of effective instructional materials.
Prerequisite: HRD 310, 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: 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

485K Pawley Hall (248) 370-3065
Fax: (248) 370-4367

Chairperson: *James F. Cipielewski*

Professors emeriti: *Richard F. Barron*, *Jane Bingham, Gloria T. Blatt, Robert J. Christina, George E. Coon*

Distinguished professor: *Ronald L. Cramer*

Professors: *John E. McEneaney, Robert M. Schwartz, Toni S. Walters*

Associate professors: *James F. Cipielewski, Ledong Li, Mary K. Lose, Gwendolyn M. McMillon, Linda M. Pavonetti, Anne E. Porter*

Assistant professors: *Tanya M. Christ, S. Rebecca Leigh*

Adjunct assistant professor: *Linda Ayres*

Special instructor: *Annette Osborne*

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, instructional systems technology and children's literature at the undergraduate level for students pursuing a career in teaching. The department offers a master's degree program in reading and language arts, certificate programs in microcomputer applications, postmaster's certificate programs, K-12 reading endorsements, a master's degree program combined with the early childhood endorsement and a doctor of philosophy degree in reading.

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*.

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: Admission to major, FE 310, FE 315, EED 354, EED 420, IST 396.
Corequisite: RDG 333.

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: WRT 160 or equivalent.

RDG 333 Teaching the Language Arts (2 or 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: Admission to major, FE 310, FE 315, EED 354, EED 420, IST 396.
Corequisite: RDG 331.

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: WRT 160.

RDG 337 Content Reading in the Elementary School (4)
Designed for content subject learning in the elementary classroom. The course bridges learning to read and reading to learn practices relevant to the curriculum of the elementary school children.
Prerequisite: RDG 331, RDG 333, admission to elementary education program or permission of instructor.

RDG 338 Teaching Reading in the Content Areas (4)
Basic course in reading for secondary teachers. Focuses on the reading process, strategies and materials for teaching reading in English, social studies and other subjects to junior and senior high school students. Not open to elementary education majors.

RDG 414 Reading Appraisal in the Elementary Classroom (2 or 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: admission to Major, FE 310, FE 315, EED 310, EED 354, EED 420, IST 396, RDG 331, RDG 333, SE 355.

RDG 490 Independent Study and Research (2 or 4)
Directed individual reading research. May be repeated for a maximum of 4 credits. Departmental permission required. Students must obtain written faculty agreement to supervise their study before permission is granted.
Prerequisite: RDG 331, RDG 333.

INSTRUCTIONAL SYSTEMS TECHNOLOGY

IST 396 Educational Uses of Microcomputers and Related Technologies (3 or 4)
Basic microcomputer literacy course. Focuses on educational applications. Prepares students to use microcomputers and related technologies for career and personal goals.
Prerequisite: admission to Major, FE 310, FE 315.

IST 397 Integrating Technology in Secondary Curricula (4)
A general personal computer course designed for secondary education students. Students will become proficient users of the World Wide Web and software application tools designed to integrate technology into secondary curricula.

IST 399 Secondary Education - Uses of Microcomputers and Related Technologies (4)
A general microcomputer literacy course designed with focus on educational applications to enable secondary education students to utilize microcomputers and related technologies for career and personal goals. This course is a requirement of secondary education majors for the computer science minor.
Prerequisite: 12 credits in Computer Science.

IST 464 Consultation: Technology Applications in Education (4)
Approaches consultation from an organizational development and change perspective. Students will develop a basic understanding of the consulting process and technology applications.
Prerequisite: IST 396, IST 397, IST 399 and permission of instructor.

IST 490 Independent Study: Instructional Systems Technology (2 or 4)
Topics differ depending on student interests. Students pursue a topic independently but with instructor guidance. A written proposal is prepared and must be approved by faculty sponsor.
Prerequisite: IST 396 or IST 397 or IST 399 and permission of instructor.

IST 499 Final Project in Instructional Systems Technology (4)
Students, independently or in groups, formulate a project in an area of personal interest with practical application in the secondary classroom. Project proposals require instructor approval. Assistance is available upon request. Completed project must be presented at least two weeks before the end of classes in the semester of graduation.
Prerequisite: IST 399.

DEPARTMENT OF TEACHER DEVELOPMENT AND EDUCATIONAL STUDIES

485B Pawley Hall (248) 370-2613
Fax: (248) 370-2639

Chairperson: *Dyanne M. Tracy*

Professors emeriti: *James W. Hughes, M. Sharon P. Muir*

Professors: *Dyanne M. Tracy, Mary T. Stein, Robert A. Wiggins*

Associate professors: *Karen Bolak, Nancy A. Melamed-Brown, Timothy Larrabee, Ji-Eun Lee, Michael MacDonald, Carolyn O'Mahony, Thomas Pedroni, Dawn M. Pickard*

Assistant professors: *Mark Olson, Michael Weiss*

Special instructors: *Linda Tyson, Mary F. Zeppelin*

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 Teacher Education Accreditation Council (TEAC) 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 that enable students to earn concurrently 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.

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 are 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.

Students in this status may only register for the following categories of coursework: Math (MTH 061, 062, STA 225, MTE 210), Writing (WRT 102, 150, 160), General Education, Major/Minor endorsement area courses, EED 310/311, SCS 105 and the 20-credit planned program (Option 1 track) or the comprehensive major (Option 2 track).

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 a multicultural school or district. Underrepresented students are especially encouraged to apply.

Minimum criteria for admission to the major are:

1. Passing the Michigan Test for Teacher Certification (MTTC) Basic Skills Exam. Please note: students must request that MTTC send the student's scores to OU and each student must submit a photocopy of official Examinee Score Report that the student receives to SEHS Advising.
2. Completion of STA 225 and 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 310/311 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") in EED 310/311. (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 311 in lieu of 310. Previously enrolled OU students must take EED 310 at OU.)
5. Achieve 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. All first year and transfer students are required to attend an orientation to plan their first semester courses. During the first semester at Oakland, students should schedule an advising appointment to review the program plan and degree requirements. In subsequent semesters, students should schedule advising appointments far in advance of early registration time so that the staff may adequately serve their needs. The adviser's role is to audit, assist and advise. Ultimately the student is responsible for meeting all degree and graduation requirements.

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.

To earn the BS degree – Option 1 students must:

1. Complete 132-159 credits depending on student's core content area major or minor areas of concentration. At least 32 credits, including the last 8, 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 NCATE-accredited colleges may be approved.
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, 406, 410, MTD 301, and 3 additional core content area courses that are not in the student's teaching major or 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"), EED 310/311 (3.0 or "B"), SCS 105. Professional courses: EED 354, EED 420, FE 406, EED 316, IST 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 2.80 GPA.
7. Be in compliance with all legal curricular requirements for Michigan certification.

General education (see page 56)

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. (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.

Language arts teaching minor (24 credits) — ENG (choose one (1) course from the list of approved Literature General Education courses), RDG 332; ALS 176; RDG 331, RDG 333 and RDG 414. 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, ENG 210, ENG 215, ENG 380, ENG 383, ENG/WRT 386, JRN 200, JRN 312, JRN 405, WRT 320, WRT 364; one course from Oral Language Component: COM 201, COM 202, COM 303, COM 305, COM 307, COM 360, THA 100, THA 105, THA 211, THA 330; and one course from the combination of the two or one of the following: ALS 334, ALS 335, ALS 374, ALS 375, ALS 376, IST 464, LIN 201 and RDG 490.

Mathematics teaching minor (20 credits) — MTE 210, 211, 410; MTH 141; STA 225. Students who test out of MTH 141 must elect one additional course from MTH 118, MTH 122 or MTH 154.

Mathematics teaching major (30 credits) — Meet requirements of the mathematics minor plus at least 10 credits from MTH 118, MTH 122, MTH 154, CSE 130 or MTE 405.

Modern languages teaching minor (20 credits) — Choose from French, German, and Spanish. All credits must be at the 300-400 level: 314, 316, 318, 351, and 370 (plus 4 credits elective) in French; 314, 316, 318, 351 and 380 (plus 4 credits elective) in Spanish; and 314, 316, 318, 440 and 371 (plus 4 credits elective) in German. In addition EED 428, Foreign Language Teaching Methods in Elementary and Middle School, is required.

Modern languages teaching major (32 credits) — Choose from French, German, and Spanish. All credits must be at the 300-400 level: 314, 316, 318, 351, 370 and 380 (plus 12 credits elective) in French; 314, 316, 318, 351, 370, 380 and IS 250 (plus 8 credits elective) in Spanish; and 314, 316, 318, 371, 381 and 440 (plus 12 credits elective) in German. In addition EED 428 – Foreign Language Teaching Methods in Elementary and Middle School is required.

Integrated science teaching minor (28 credits) — SCS 105, SCI 100, BIO 104, BIO 300, CHM 104, PHY 101, PHY 104 or PHY 106.

Integrated science teaching major (36 credits) — Meet requirements of the integrated science minor plus 4 credits from PHY 104 or PHY 106, 4 credits of electives select from BIO 111, SCS 306, CHM 300, PHY 102 or PHY 120.

Social studies teaching major (36 credits) — HST 114 and 115; ECN 200 and 201; GEO 200, and 106, PS 100 plus one additional PS course (selected from PS 131, PS 114, PS 314 or PS 329). And SST 200 and 490. If additional elective credits are needed, they should be selected from either the list of approved PS courses detailed above or HST 102 or 321.

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, 332, 322, 324, 326, 328, 330, and 333.

English as a Second Language (20 credits) – LIN 201, ALS 375, 317, 418, 438, and 419. LIN 201 and ALS 418 each require a 3.0 grade or "B" minimum. All other courses require a 2.5 grade or "B-".

To earn the BS degree – Option 2, students must:

1. Complete 159-162 credits depending on student's chosen core content area endorsement. At least 32 credits, including the last 8, 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 NCATE-accredited colleges 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), STA 225 (2.0 or "C" minimum), MTE 210 (2.0 or "C" minimum), HST 114 or 115 (2.5 or "B-" minimum), GEO 106 or 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 310/311 (3.0 or "B"), SCS 105. Professional courses: EED 354, EED 420, FE 406, EED 316, IST 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 2.80 GPA.
7. Be in compliance with all legal curricular requirements for Michigan certification.

General education (see page 56)

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 K-6 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, 332, 322, 324, 326, 328, 330, and 333.

English as a Second Language (20 credits) – LIN 201, ALS 375, 317, 418, 438, and 419. LIN 201 and ALS 418 each require a 3.0 grade or "B" minimum. All other courses require a 2.5 grade or "B-".

Modern languages teaching minor (20 credits) — Choose from French, German, and Spanish. All credits must be at the 300-400 level: 314, 316, 318, 351, and 370 (plus 4 credits elective) in French; 314, 316, 318, 351 and 380 (plus 4 credits elective) in Spanish; and 314, 316, 318, 440 and 371 (plus 4 credits elective) in German. In addition EED 428, Foreign Language Teaching Methods in Elementary and Middle School, is required.

Modern languages teaching major (32 credits) — Choose from French, German, and Spanish. All credits must be at the 300-400 level: 314, 316, 318, 351, 370 and 380 (plus 12 credits elective) in French; 314, 316, 318, 351, 370, 380 and IS 250 (plus 8 credits elective) in Spanish; and 314, 316, 318, 371, 381 and 440 (plus 12 credits elective) in German. In addition EED 428 – Foreign Language Teaching Methods in Elementary and Middle School is required.

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 courses must be completed prior to student teaching. 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: (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; or (x) failure to exercise appropriate; professional judgments.

Field placements: Participation in field placements is required during EED 310/311 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 two in urban 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 fall semester for both fall and winter student teacher applicants) at which 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; and 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 (83); students placed in a middle school must have passed the MTTC Elementary Education test (83) 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, 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, and successfully pass the elementary education MTTC #83 exam. To be recommended for content area endorsements to the elementary education certificate, students must also successfully pass the subject area tests required by the state. Oakland University requires that the candidate additionally document successful completion of one subject area MTTC test in order to be recommended from this university for certification. 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 grade 6 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.

Course Offerings

For FE and SE course descriptions, see the Department of Human Development and Child Studies; for RDG and IST courses, see the Department of Reading and Language Arts. The department offers

courses from this catalog as warranted by student needs and availability of faculty. Specific offerings for each term may be found in SAIL. All professional courses may be retaken only once.

ELEMENTARY EDUCATION

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: admission to major and EED 310/311, 354, 420, FE 406, IST 396, and MTE 210.
Prerequisite or Corequisite: SE 401 and SCS 105.

EED 303 Teaching Mathematics in Middle School (4)
Assists prospective and practicing teachers in developing sound pedagogical strategies and instructional techniques for teaching mathematics in the middle school. Crosslisted with SED 429 and EST 530.
Prerequisite: EED 302 or SED 428.

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: admission to major and EED 310/311, EED 354, EED 420, FE 406, IST 396, MTE 210, and SCS 105.
Prerequisite or Corequisite: RDG 331 and 333.

EED 306 Teaching Health at the Elementary and 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 310 Public Education for the Future (3)
Exposes prospective elementary education majors to an overview of practical issues, theoretical foundations and professional standards. This course assists students in determining whether they possess the desire and prerequisite skills needed for pursuing teaching as a career, including interpersonal, and intrapersonal communication skills such as reading, writing, speaking and listening. Includes a required field 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. May only be retaken once.
Prerequisite: GPA 2.80 or better and WRT 160 (3.0 or "B" minimum).

EED 311 Public Education for Prospective K-8 Teachers (2)
Students transitioning from community college programs to the Teacher Education Programs at Oakland University will explore K-8 teaching as a career through critical reflection, research related to teaching as a profession including an understanding of professional standards, intensive writing and a required 30-hour urban field 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.* This course can only be repeated once. This course is cross-listed with SED 301.
Prerequisite: adviser approval.

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.
Prerequisite: admission to major, EED 310/311, EED 354, EED 420; FE 406, IST 396.

EED 354 Instructional Design and Assessment (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 and (EED 310/311), FE 406.
Corequisite: EED 420.
Prerequisite or Corequisite: IST 396.

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.
Prerequisite: admission to K-8 Elementary Education Program.

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 for Elementary Education major: EED 310/311, FE 406.
Corequisite for Elementary Education major: EED 354.
Prerequisite or Corequisite for Elementary Education major: IST 396.
Prerequisite for Studio Art or Modern Language major: EED 310/ 311 or SED 300/ 301.
Prerequisite or Corequisite 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 the foreign language classroom fosters creative and communicative language practices. Required field experience.
Prerequisite: admission to major and EED 420.

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: 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: admission to major, EED 310/311, 354, 420, FE 406, IST 396.
Prerequisite or Corequisite: RDG 331 or RDG 333.

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.
Crosslisted 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. Crosslisted 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: 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 (3 or 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: 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: 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: 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.
Prerequisite: 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: permission of instructor.

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, 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 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 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 course-work. 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 the internship year:

SED 300 Introduction to Secondary Education
(includes a 50 hour field assignment in the major in addition to course time.)
Must be completed no less than 1 semester before application to STEP.
Overall GPA of 2.80 required to enroll. May only be retaken once. 3.0
minimum grade required for STEP application. 4

IST 397 Integrating Technology in Secondary Curricula
(K-12 Art and Modern Language Students may elect IST 396 instead.)
Students may pass a required competency exam in the area of
technology in lieu of completing the IST requirement. Interested
students should consult SEHS Advising for further details. 4

FE 406 Child Development, Variability and Learning (includes a
required field experience) 4

RDG 338 Teaching Reading in the Content Areas (includes a
required field experience) 4

SED 427 Methods of Teaching Secondary Students/(includes
a required field experience in minor) or
SED 426 Teaching in Your Minor Field: Mathematics
(includes a required field experience in minor) or
ENG 398 Approaches to Teaching Literature and
Composition (English minors are required to complete a required
field experience in minor) 4

- Additional professional course requirements for Modern Language majors: EED 420 and EED 428.

Internship year courses include (Field experience required. 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 Teaching of the Major Field	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 300/301
Senior year, winter semester	FE 406; SED 427, SED 426, or ENG 398 (dependent upon your 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 300/301
Senior year, winter semester	RDG 338; SED 427, SED 426 or ENG 398 (dependent upon your 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: (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) of community standards or policies; or (x) failure to exercise appropriate; professional judgments.

Field experiences

SED 300/301; 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 300/301 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 in 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 300/301 with a minimum grade of 3.0. *This course 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 GPAs of 3.00 in both CAS major and minor and education coursework.
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 Basic Skills Test components of the Michigan Test for Teacher Certification (MTTC).

Program admission

The process of admission is designed to identify and to 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 GPAs, 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 course-work 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 is

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, or incomplete applications, will not be considered.* 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 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.

K-12 ART EDUCATION COURSES

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 crosslisted 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 cross-listed with EST 502. *Field placement required.*
Prerequisite: 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: AED 301 and AED 302.
Corequisite: 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: AED 301, 302.
Corequisite: AED 303.

AED 455 Internship to 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 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: permission of department (present written consent by faculty who will supervise study).

SECONDARY EDUCATION

SED 300 Introduction to Secondary Education (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 writing foundation requirement.*

SED 301 Public Education for Prospective K-12 Teachers (2)
Students transitioning from Macomb Community College or other community college programs to the Teacher Education programs at Oakland University will explore 6-12 teaching as a career through critical reflection, research related to teaching as a profession including an understanding of professional

standards, intensive writing and a required 30-hour urban field experience. Eligibility to apply to the OU STEP includes attainment of a 3.0 GPA in SED 301 as well. Crosslisted with EED 311. *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: 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 affective learning. *Field placement required.*
Prerequisite: admission to secondary education, minor field- mathematics only.

SED 427 Methods of Teaching Secondary Students (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.
Prerequisite: admission to Secondary Education major. Minor must not be Math or English. Field placement required.

SED 428 Teaching of the Major Field (3 or 4)
Develops specific knowledge, competencies and skills required for effective teaching in the student's major field. Field placement required.
Prerequisite: admission to Secondary Education and internship placement.

SED 429 Teaching Mathematics in the Middle School (1 to 4)
Assists prospective teachers in developing sound pedagogical strategies and instructional techniques for teaching mathematics in the middle school. Crosslisted with EED 303 and EST 530.
Prerequisite: EED 302 or SED 428.

SED 455 Internship in Secondary Education (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: 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: permission of department (or written consent by faculty who will supervise study).

SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

248 DODGE HALL (248) 370-2217
oakland.edu/secs Fax: (248) 370-4261

Dean: *Louay M. Chamra*

Office of the Dean: *Fatma Mili, interim associate dean; Keith Harvey, business manager; Patrick Bennett, academic adviser/program coordinator; Carmen Etienne, academic adviser; Kathleen Livelsberger, engineering cooperative education coordinator*

Advisory Board

The Advisory Board for the School of Engineering and Computer Science 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:

Ron A. May, Chairperson, Advisory Board; Senior Vice President, DTE Energy
Hadi A. Akeel, Ph.D., Consultant, Robotics and Automation
Thomas E. Anderson, Director, Automation Alley Technology Center
Michael Bolon, Senior VP, General Dynamics Land Systems
Glenn Denomme, VP, Automotive Solutions Group
Herbert H. Dobbs, Ph.D., Consultant, Rochester, Michigan
Shavesh Doshi, The Doshi Group
John Felice, (retired), Chrysler LLC
Grant R. Gerhart, Ph.D., Retired, TARDEC
David Gorsich, Ph.D., Chief Scientist, U.S. Army RDECOM-TARDEC
Philip M. Headley, Chief Engineer, Brake Systems, N.A., Continental Teves
Fred Killeen, Interim Chief Technology Officer, General Motors Corporation
Joseph D. Long, Chief Engineer, Door Systems, Inteva Products
William Mattingly, Business Development, Automotive Systems Integrators
William T. Mihalic, Executive Coordinator, Denso International America, Inc.
Yogen N. Rahangdale, Retired, American Axle & Manufacturing
Gary W. Rogers, President and CEO, FEV Engineering Technology, Inc.
Stephan Sharf, President, Sharf International Consultant Associates
Jeffery Van Dorn, Android Industries, LLC

Mission

The overall mission of the School of Engineering and Computer Science is threefold:

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

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

- education of engineers and computer scientists,
- development of research programs and
- fulfillment of the demands for professional service.

General Information

Accreditation

The undergraduate programs in computer, electrical, industrial and systems and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700. The computer science program is accredited by the Computing Accreditation Commission (CAC) of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700.

Undergraduate programs

The School of Engineering and Computer Science 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 engineering biology are offered jointly with the College of Arts and Sciences.

Through its engineering programs, the School of Engineering and Computer Science 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 School of Engineering and Computer Science 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 School of Engineering and Computer Science 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), Institute of Electrical and Electronics Engineers (IEEE), International Association for Hydrogen Energy (IAHE), Institute of Industrial Engineers (IIE), Oakland Robotics Association (ORA), Society of Automotive Engineers (SAE), 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 School of Engineering and Computer Science offers programs leading to the Master of Science degree in computer science and engineering, electrical and computer engineering, embedded systems, industrial and systems engineering, information systems engineering, mechanical engineering, mechatronics, software engineering, and the Doctor of Philosophy degrees in, computer science and informatics, electrical and computer engineering, mechanical engineering and systems engineering. The latter involves 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 and Advanced Automation (CRAA)

The School of Engineering and Computer Science has a Center for Robotics and Advanced Automation. The main goals of the center are to contribute to the demand for high technology and industrial productivity in the United States.

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.

Product Development and Manufacturing Center (PDMC)

Global competition in manufacturing mandates continual improvement in technology, business processes and employee capabilities. The manufacturing enterprise must also consider interdependencies between these three factors when affecting change. In recognition of this dynamic, the Product Development and Manufacturing Center at Oakland University focuses on improving the competitiveness of the automotive industry and its suppliers through application of new and existing technology, modified business practices and new educational and training paradigms.

Automotive Tribology Center (ATC)

The ATC performs research that lowers frictional energy losses and enhances reliability and durability of automotive components.

Admission

High school preparation

Entering freshmen planning to major in engineering, computer science should have taken at least four years of high school mathematics, including trigonometry. A solid background in English composition is essential for all majors. Additional preparation should include course work in chemistry and physics. Drafting, machine shop practice, computer programming and electronics shop courses are useful, but are not required for admission. Freshmen planning to enter a program in information technology should have at least three years of high school mathematics with some preparation in science. Normally, a 3.00 (B) grade point average is required for admission to programs in the School of Engineering and Computer Science.

Transfer policy

The programs offered by the School of Engineering and Computer Science 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 background into advanced analysis and design work.

To ensure the integrity of its programs, the School of Engineering and Computer Science 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 college physics using calculus; 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 the 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 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 college physics using calculus. 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 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 approval of the specific Departmental Undergraduate Affairs Committee, before student receives official transfer credit. See Transfer student information for additional information.

Internal transfer

Oakland University students wishing to transfer into engineering or computer science programs in the School of Engineering and Computer Science from other majors or from undecided status will be considered upon the completion of the following courses: MTH 154, 155; PHY 151 and 152. Similarly, students wishing to transfer into the information technology program will be considered upon completion of MTH 154 or 122, STA 227, APM 163 and a proper science elective.

Academic advising and plans of study

The programs of study for all entering freshmen are focused toward acquiring math, science, writing and programming skills and thus follow a more or less uniform pattern. One of the early courses taken by engineering students is EGR 120, Engineering Graphics and CAD that introduces students to the special software tools used in engineering. Upon acquiring major standing (see below), students are assigned to a faculty adviser. It is mandatory for the students to consult their faculty advisers to plan a meaningful program of professional study in their major immediately after major standing has been granted.

In order to further facilitate the student-faculty interaction, one week in winter semester is designated as "Advising Week." Failure to meet with his/her adviser during each winter semester will result in a hold being placed on the student's registration for the succeeding semester.

In consultation with the faculty advisers, 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 the academic adviser in 159 Dodge Hall. Students of the School of Engineering and Computer Science 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.

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, engineering biology, computer science and information technology:

1. Complete at least 128 credits for all programs. 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 School of Engineering and Computer Science for further clarification.) The credits taken at Oakland must include the following for students majoring in:
   Computer, electrical, industrial and systems, mechanical engineering: at least 24 credits in engineering core or professional subjects required for the major,
   Engineering chemistry, engineering physics, and engineering biology: 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 requirement (see below *and Undergraduate degree requirements*).
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 2.00 in courses taken at Oakland University.
8. Complete an Application for Degree at the Office of the Registrar and pay the graduation service charge.

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. (*please 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, Diversity requirements must also be met. For details, see page 56 of this catalog.

Foundations:
(1) Writing foundations as indicated above.
(2) Formal Reasoning *

Exploration:
(3) Art
(4) Foreign Language and Culture
(5) Global Perspective
(6) Literature
(7) Natural Science and Technology*
(8) Social Science
(9) Western Civilization

Integration:
(10) Knowledge Applications*

Capstone*

Diversity: may be met by an approved course in Explorations area.

*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. A course may be selected such that it also satisfies science elective requirement of the IT program.

Engineering core

All engineering programs in the School of Engineering and Computer Science 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 School of Engineering and Computer Science 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 the 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 in the advising office (159 Dodge Hall).

To gain major standing requires completion of writing foundations (see above) and satisfactory completion of course work in mathematics, science and the major, as designated below.

Engineering:
Mathematics: MTH 154-155, APM 255. Science: CHM 143; PHY 151, 152. Engineering Core : EGR 120, 141, 240, 250, 260 and 280.

Computer Science:
Mathematics: MTH 154-155, 275; APM 263, Science: PHY 151, 152, Major: EGR 141, 240; CSE 230, 280.

Information Technology:
Math/Science: MTH 154 or 122, STA 227; APM 163, science elective. Major: CIT 120, 131, 230, 247, 251, 280.

Engineering Biology:
Math/Science: MTH 154-155, APM 255, Science: PHY 151, 152, BIO 111-113. Major: EGR 120, 141, 240, 250, 280.

Engineering physics:
Mathematics: MTH 154-155, APM 255. Science: CHM 143; PHY 151, 152, 158. Major: EGR 120, 141, 240, 250, 260, 280.

Engineering chemistry:
Mathematics: MTH 154-155, APM 255. Science: CHM 157-158 or 162-163; 147-148. Major: EGR 120, 141, 240, 250, 260, 280.

To complete the requirements for major standing satisfactorily a student must a) have an average of at least 2.00 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 repeated any course more than twice; and d) not have repeated more than three different courses. Courses in which a W (withdrawal) grade is recorded will not be counted.

Major standing may be granted in the semester in which the student is enrolled in the 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 first two years

	Fall	**Winter**
Year 1	MTH 154	MTH 155
	CHM 143	PHY 151
	EGR 120	EGR 240
	EGR 141	Gen. Ed.
	Gen. Ed.	
Year 2	APM 255	MTH 254/APM 263
	PHY 152	EGR 260
	EGR 250	EGR 280
	Gen.Ed./CSE 230	Gen.Ed./CSE 231

Scheduling for subsequent years 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 School of Engineering and Computer Science.

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 159, Dodge Hall.

Cooperative education

General information

Students in the School of Engineering and Computer Science who want to combine relevant work experience with their college education are encouraged to participate in the university's cooperative education program. Co-op employment provides practical training related to a student's field of study and forms an integral part of the educational program. It enables students to relate their academic studies with practical applications, and it gives them early contact with practitioners in their fields.

Requirements of the cooperative education program

Students interested in the cooperative education program in engineering, computer science or information technology should apply through the office of the cooperative education coordinator, 275 Vandenberg Hall, (248)370-3250.

To be admitted, students must:

1. be granted major standing (see above), or file an approved plan for achieving major standing, signed by the academic adviser;
2. normally, have a cumulative grade point average of at least 2.80;
3. have the approval of the academic adviser, the cooperative education coordinator for the school and the employer.

Transfer students must have completed at least one semester of full-time study at Oakland University before acceptance into the program.

To remain in good standing in the cooperative education program, students must:

1. complete alternate semesters of full-time study and full-time work or participate in a parallel co-op, taking a reduced course load while working part-time;

2. complete at least 8 to 12 credits of course work appropriate to their elected major during each semester of study, maintaining a cumulative grade point average of at least 2.80;
3. submit a satisfactory training report within four weeks of the beginning of the semester following each co-op assignment;
4. receive a satisfactory employer evaluation for each assignment.

Students who do not meet the conditions for good standing will be subject to dismissal from the co-op program. The co-op program is administered by the Department of Career Services.

Double major

To earn two majors in engineering or in engineering and computer science, students must complete all 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:

International orientation for engineering/computer science students

Coordinator: *Fatma Mili*

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 for engineering/computer science students, students must complete the following courses with a grade of at least 2.0 in each course:

Introductory course (4 credits): IS 210, 220, 230, 240, 250, 260; HST 341

Foreign language consistent with the introductory course (8 credits)

ECN 200 or 210 (4-6 credits)

One advanced course (4 credits) from PS 314 or ECN 373

EGR 496 (4 credits), which requires eight weeks of study/work abroad.

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.

Minors in computer science, computing, or information technology for non-engineering majors are also offered. For details see the listing in the Department of Computer Science and Engineering portion of this catalog.

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 cancelled if they register for courses for which they do not meet the 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 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 2.00 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 2.00 in one or more of the three categories will be placed on provisional status.

While on provisional status, students must have their programs of study approved by the chair of their major department. Students who fail to remove provisional conditions after one semester are generally ineligible to continue their programs. However, provisional 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 provisional 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 the academic adviser or the 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 in 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 3.50 in SECS courses.

Each year the faculty selects graduating seniors to receive four special awards: Exceptional Achievement, Academic Achievement, Professional Development, and Service. Details are described in the SECS undergraduate student handbook available on the SECS web site. In addition to scholarships available to all Oakland University students, the following are available specifically to SECS students:**

DeVlieg Foundation Scholarships: Awarded annually to both undergraduates and graduate students by the Department of Mechanical Engineering, these scholarships are merit based in amounts ranging from $1,000 to $5,000.

MSPE Scholarship: A $1,000 scholarship is awarded annually to a student in the SECS. Application is filled with the Michigan Society of Professional Engineers.

NHK International Corporation Scholarship: This endowed scholarship of $2,000 is awarded to a full-time SECS graduate or undergraduate student whose GPA is a minimum of 3.20 and who has demonstrated professionalism, the ability to collaborate with others and a potential to contribute to the quality of academic and student life.

Oakland University Engineering Scholarship: Awarded to entering engineering or computer science students based upon a minimum high school GPA of 3.50 and scores on a standardized test, these scholarships may be renewed for a total of eight semesters to recipients who maintain a 3.00 GPA and continue to major in engineering or computer science.

SAE Engineering Scholarship: This $1,000 scholarship is awarded annually to an entering freshman with high academic credentials and involvement in extra curricular or community activities. Application is filed with the Society of Automotive Engineers.

Society of Women Engineers: Open to undergraduate and graduate students majoring in Mechanical Engineering or Electrical & Computer Engineering and are members of the Society of Women Engineers. Undergraduate GPA greater than 3.50, Graduate GPA: 3.70. Good communication + leadership skills, as well as community involvement.

Thomas A. Yatooma Memorial Scholarship: provided by the SECS Alumni Affiliate, up to four $1,000 scholarships are awarded annually to engineering or computer science majors. Applications are available in February from the SECS advising office and the alumni office.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

168 DODGE HALL (248) 370-2200

Chairperson: *Ishwar K. Sethi*

Professors emeriti: *David E. Boddy, Glenn A. Jackson, Janusz W. Laski, Ronald J. Srodawa, Sarma R. Vishnubhotla, Thomas G. Windeknecht*

Professors: *Fatma Mili, Ishwar K. Sethi*

Associate professors: *Debatosh Debnath, Huirong Fu, Dae-Kyoo Kim, Lunjin Lu, Gautam Singh*

Assistant professors: *Nilesh Patel, Guangzhi Qu, Mohammad R. Siadat, Ching Seh Wu*

Special instructor: *Jerry E. Marsh*

Special lecturer: *Laura Dinsmoor, Sebnem Onsay*

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
Jerry L. Chapin, Vice President, Science Applications Int'l. Corporation
Richard J. Chutarash, IEE-Sensing
Keith Ensroth, CIO, Entertainment Publications
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.

Mission

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 doctoral program in Computer Science and Informatics.

Major in computer science

The program in computer science leading to a Bachelor of Science degree prepares students for professional practice in systems programming, software design and computer applications, or for graduate study in computer science. The program provides a solid foundation based on the organization, processing and display of information.

Program Educational Objectives

The objectives of the Computer Science program are to produce graduates who:

- are able to design, implement, verify and test a computer software system;

- can adapt and contribute to new technologies and methods and to use these in the practice of computer science;
- are prepared to pursue successfully graduate study in computer science or related disciplines;
- are proficient in written and oral communication;
- can function successfully in the automotive and other global industries;
- can serve in a variety of roles such as solving problems with technical and nontechnical elements, serving as team members, and leading others; and
- have high standards of professional and ethical responsibility.

To earn the Bachelor of Science degree with a major in computer science students must complete a minimum of 128 credits, satisfy writing requirements (also see *Undergraduate degree requirements*) and meet the following requirements:

		Credits
General education		**24**
Mathematics and science		
MTH154-155	Calculus	8
MTH 275	Linear Algebra	4
APM 263	Discrete Mathematics	4
PHY 151-152	Introductory Physics	8
STA 226	Applied Probability and Statistics	4
Approved mathematics or science elective*		4
		32
Computer science core		
CSE 142	Introduction to C Programming and Unix	2
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
		20
Professional subjects		
Required:		
200-Level CSE Programming elective (CSE 232 or 233 or 234 or 235)		2
200-Level	Professional elective (CSE 247 or 252)	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 402	Social Implications of Computers	2
CSE 450	Operating Systems	4
CSE 480	Senior Capstone Project	4
		36
Electives —		
Professional electives: 8 credits chosen from:		**8**

Any 300-, 400-, or 500-level engineering or computer science or information technology courses, or approved mathematics and science electives (see below)* 8

Free electives: (may be used to satisfy writing requirement) 8

Total 128

**Approved mathematics and science electives:*

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. For more information about these selections, students are encouraged to visit with an undergraduate adviser before registering for an approved math or science elective.

APM 255	*Introduction to Differential Equations with Matrix Algebra*
APM 332	*Applied Matrix Theory*
APM 433	*Numerical Methods*
APM 434	*Applied Numerical Methods: Matrix Methods*
APM 463	*Graph Theory and Combinatorial Mathematics*
APM 477	*Computer Algebra*
BIO 111	*Biology*
CHM 143	*Chemical Principles*
MOR 242	*Elementary Models in Operations Research*
PHY 325	*Biological Physics*
PHY 326	*Medical Physics*
PHY 331	*Optics*
PHY 366	*Vibrations and Waves*
PHY 371	*Foundations of Modern Physics*
MTH 352	*Complex Variables*
STA 322	*Regression Analyses*

or others by approval by 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 2.00 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 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: MTH 154, CSE 142, two general education, 14 credits; winter semester: MTH 155, PHY 151, CSE 230, general education, 16 credits.

Sophomore year — fall semester: APM 263, PHY 152, EGR 240, 200 Level Program. Elective, general education, 18 credits; winter semester: MTH 275, CSE 231, 200-level professional CSE elective, general education, CSE 280, 18 credits.

Junior year—fall semester: STA 226, CSE 335, 361, general education, 16 credits; winter semester: CSE 343, 364, 337, general education or free elective, 16 credits.

Senior year — fall semester: CSE 450, 345, professional elective, mathematics or science elective, 16 credits; winter semester: CSE 402, CSE 480, professional elective, free elective, 14 credits.

Major in information technology

The program in information technology (IT) leading to a Bachelor of Science degree prepares students for a professional career in IT. The program provides students with sufficient technical strength and a comprehensive understanding of information technology practice in context to act as problem solvers in various settings. This is achieved by requiring every student to either do an industry internship or participate in an industry-sponsored project, or perform undergraduate research under the supervision of a faculty mentor. The program also includes a strong professional component to develop skills in technical communication, ethics and group work. Finally, every IT major has a choice of an interdisciplinary track of upper division courses (12 credit hours) in an application area of IT.

Program Educational Objectives

The objectives of the Information Technology program are to produce graduates who:

- are able to design, implement and manage IT solutions to meet an organization's goals;
- can adapt and contribute to new technologies in support of IT infrastructure;
- are prepared to pursue successfully graduate study in IT-related disciplines;
- are proficient in written and oral communication;
- can function successfully in the automotive and other global industries;
- can serve in a variety of roles such as solving problems with technical and nontechnical elements, serving as team members, and leading others; and
- have high standards of professional and ethical responsibility.

To earn the Bachelor of Science degree with a major in information technology, students must complete a minimum of 128 credits, satisfy writing requirement (also see Undergraduate degree requirements) and meet the following requirements:

		Credits
General education		**24**
Mathematics and science		
MTH 154 or MTH 122	Calculus	4
STA 227	Introduction to Statistical Methods	4
APM 163	Mathematics for Information Technology	4
Approved science elective*		4
		16
Information Technology core		
CIT 120	Introduction to Computing and Programming using Excel	4
CIT 131	Computer Programming	4
CIT 230	Object-Oriented Computing I	4
CIT 247	Introduction to Computer Networks	4
CIT 252	Interactive Web Systems	4
		20
Professional subjects		
Required:		
CIT 248	Computer Systems	4
CIT 280	Sophomore Project	2
CIT 337	Software Engineering and Practice	4
CIT 345	Database Design and Implementation	4
CIT 350	Human Computer Interaction	4
CIT 352	System Analysis	4
CIT 402	Professional Practice	2

CIT 448	Information Security Practice	4
CIT 480	Senior Capstone Project	4
		32

Electives — 20 credits chosen from:

8 credits of courses from one of the following tracks: • System administration Track (CIT 348, 349) • Bioinformatics Track (BIO 341, CSE 461)	8
4 credits of Internship (CIT 496) or Industrial Project (CIT 497) or Undergraduate Research (CIT 498)	4
8 credits of course work in management and communications from the following: • CIT Project Management (CIT 450) • Group Dynamics and Communication (COM 202) • Communication in Organizations (COM 304)	8
Free electives (may be used to satisfy writing requirement)	20
	16
	Total 128

**Approved science electives for information technology majors are: biology courses numbered 111, 113 and higher except BIO 300; CHM 157 and higher, except CHM 300 and 497; physics courses numbered 151 and higher; environmental health courses ENV 308 and 373. Special topics and independent study courses require prior approval.*

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.00 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 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: MTH 122 or 154, CIT 131, general education, 16 credits; winter semester: CIT 120, CIT 230, science elective, general education, 16 credits.

Sophomore year —fall semester: APM 163, CIT 247, free elective, general education, 16 credits; winter semester: CIT 248, CIT 252, CIT 280, STA 227, 14 credits.

Junior year —fall semester: CIT 337, CIT 345, IT track elective 1, general education, 16 credits; winter semester: CIT 350, CIT 352, IT track elective 2, general education, 16 credits.

Senior year —fall semester: CIT 402, IT track elective 3, COM 202/304, free elective, 18 credits; winter semester: CIT 480, CIT 450, CIT 448, free elective, 16 credits.

Minors in computer science, computing or information technology

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.

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. Students must earn a minimum of 20 credits, including the following courses: CSE 142, CSE 230, CSE 231, and 10 credits minimum of CSE courses numbered 200 or above.

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.

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. 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.

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

102A SCIENCE AND ENGINEERING BUILDING (248) 370-2177

Chairperson: *Daniel N. Aloi*

Professors emeriti: *Naim A. Kheir, Keith R. Kleckner, Tung H. Weng, Howard R. Witt*

Professors: *Hoda S. Abdel-Aty-Zohdy, Ka C. Cheok, Manohar Das, Pieter A. Frick, Subramaniam Ganesan, Edward Y.L. Gu, Richard E. Haskell, Robert N. K. Loh, Andrzej Rusek, Mohamed A. Zohdy*

Associate professor: *Daniel N. Aloi, Darrin Hanna, Jia Li*

Assistant professors: *Hongwei* Qu, *Osamah Rawashdeh*

Adjunct professor: *Mutasim Salman*

Adjunct associate professors: *Anson Lee*

Adjunct assistant professors: *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:
Anthony D. Cooprider, Ph.D., Senior Technical Leader, Global IEEE, Ford Motor Company
Gerald Grzadzinski, (retired) Senior Technical Manager, Chrysler LLC
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.

Mission

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 master's programs in Electrical and Computer Engineering, Embedded Systems, Mechatronics, Systems Engineering, and a doctoral program in Electrical and Computer Engineering.

Major in electrical engineering

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.

Program Educational Objectives

The undergraduate program in Electrical Engineering will provide educational experiences aimed toward producing graduates who will:

- design electrical and/or electronic components or systems meeting user specifications;
- use laboratory (instrumentation, testing, protyping, etc.) and/or computer skills engineering analysis and design;
- adapt and contribute to new technologies and methods, and use these in engineering design;
- if desired, pursue successfully graduate study in electrical engineering or related disciplines;
- function successfully in local, national or global technology-driven industries;
- exhibit the willingness and flexibility to seek, accept and be effective in a variety of roles, such as developing and implementing solutions to problems with technical and non-technical elements, serving as a team member and leading others;
- communicate effectively in both written and verbal forms;
- exhibit high standards of personal and professional integrity and ethical responsibility.

To earn the degree of Bachelor of Science in Engineering with a major in electrical engineering, students must complete a minimum of 128 credits, demonstrate writing proficiency (see *Undergraduate degree requirements*) and meet the following requirements:

		Credits
General Education		**24**
Mathematics and Science		
MTH 154-155	Calculus	8
APM 255	Introduction to Differential Equations with Matrix Algebra	4
MTH 254	Multivariable Calculus	4
CHM 143	Chemical Principles (or CHM 157 or 162)	4
PHY 151-152	Introductory Physics	8
Approved math or science elective*		4
		32
Engineering core		
EGR 120	Computer 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
		21
Required Professional Subjects		
ECE 276	Electric Circuits	4
ECE 327	Electronic Circuits and Devices	4
ECE 335	Signals and Systems	3
ECE 345	Electromagnetics I	3
ECE 351	Electromechanical Energy Conversion	3
ECE 378	Digital Logic and Microprocessor Design	4
ECE 384	Electronic Materials and Devices	3
ECE 431	Automatic Control Systems	4

ECE 437	Communication Systems	4
ECE 491	Senior Design	4
		36

Professional electives:

Three professional depth area option courses (see below)	12
Free electives: (may be used to satisfy writing requirement)	3
Total	128

**Approved math or science electives:*
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*
APM 332	*Applied Matrix Theory*
APM 357	*Elements of Partial Differential Equations*
APM 433	*Numerical Methods*
APM 434	*Applied Numerical Methods: Matrix Methods*
APM 455	*Intermediate Ordinary Differential Equations*
APM 463	*Graph Theory and Combinatorial Mathematics*
APM 477	*Computer Algebra*
BIO 111	*Biology*
BIO 341	*Genetics*
BIO 351	*Neurobiology*
BIO 443	*Functional Genomics and Bioinformatics*
CHM 158	*General Chemistry II*
CHM 163	*Honors General Chemistry for Engineers II*
PHY 325	*Biological Physics*
PHY 326	*Medical Physics*
PHY 331	*Optics*
PHY 361	*Mechanics I*
PHY 366	*Vibrations and Waves*
PHY 371	*Foundations of Modern Physics*
PHY 431	*Lasers and Applications*
PHY 445	*Medical Instrumentation*
MTH 352	*Complex Variables*

or others by approval by petition to the SECS Committee on Academic Standing.

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, 200, 201 or 210. However, ECN 201 is not part of the general education requirement.

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 2.0 are permitted, at most two different courses may be repeated and a total of three repeat attempts is permitted.

Professional Electives

Electrical engineering students must complete at least three (3) additional 400- or 500- level courses with an ECE designation. However, students may not take ECE 490** and ECE 494** more than once.

Also other professional engineering courses carrying CSE, ME or ISE designations may be taken when called for by the options below or with prior approval of the chairperson of the Department of Electrical and Computer Engineering. Students are encouraged to consult their academic advisers in selecting professional elective courses.

Students interested in broadening their knowledge in a specific area of electrical engineering could elect sequences of courses as described in the specialized professional options listed below to satisfy the electrical engineering electives requirement.

Alternatively, they may elect any combination of the elective courses listed below under professional depth area options.

**ECE 490 and ECE 494 require prior permission of the chairperson of the Department of Electrical and Computer Engineering.

Suggested professional depth area courses

1. **Communication systems option**
   - ECE 426 Advanced Electronics Circuit Designs (4)
   - ECE 450 Satellite-Based Positioning System (4)
   - ECE 527 High-frequency Electronics (4)
   - ECE 534 Principles of Digital Communications (4)
   - ECE 537 Digital Signal Processing (4)

2. **Computer control systems option**
   - ECE 423 Robotic Systems and Control (4)
   - ECE 433 Control System Design (4)
   - ECE 470 Microprocessors-Based Systems Design (4)
   - ECE 472 Microcomputer-Based Control Systems (4)

3. **Electromagnetics option**
   - ECE 443 Electromagnetics II (4)
   - ECE 447 Antennas (4)
   - ECE 527 High-frequency Electronics (4)

4. **Electronics option**
   - ECE 426 Advanced Electronic Circuit Designs (4)
   - ECE 428 Industrial Electronics (4)
   - ECE 429 Introduction to Power Electronics (4)
   - ECE 485 VLSIC Design of Digital Chips (4)
   - ECE 525 Instrumentation and Measurements (4)

5. **Mechatronic systems option**
   - ECE 470 Microprocessors-Based Systems Design (4)
   - ECE 472 Microcomputer-Based Control Systems (4)
   - ECE 475 Automotive Mechatronics I (4)
   - ME 308 Computer-Aided Design (3)

6. **Microelectronics option**
   - ECE 485 VLSIC Design of Digital Chips (4)
   - ECE 487 Integrated Electronics (4)
   - ECE 581 Integrated Circuits and Devices (4)
   - ECE 583 Fundamentals of MEMS (4)

7. Power systems option

ECE 428	Industrial Electronics (4)
ECE 429	Introduction to Power Electronics (4)
ECE 441	Electromechanical Energy Conversion (4)
ECE 458	Electrical Energy Systems (4)
ME 454	Alternative Energy Systems (4)

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: EGR 120, MTH 154, EGR 141, CHM 143, WRT or general education, 17 credits; winter semester – EGR 240, MTH 155, PHY 151, general education, 16 credits.

Sophomore year - fall semester: ECE 276, APM 255, PHY 152, general education, 16 credits; winter semester: EGR 250, EGR 260, EGR 280, general education, 16 credits.

Junior year -fall semester: MTH 254, ECE 327, ECE 335, general education, 15 credits; winter semester: ECE 345, ECE 378, ECE 384, approved math or science elective, free elective, 17-18 credits.

Senior year – fall semester: ECE 351, ECE 431 or 437, professional elective, professional elective, 15 credits; winter semester: ECE 431 or 437, ECE 491, professional elective, general education, 15-16 credits.

Major in computer engineering

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.

Program Educational Objectives

The objectives of the Computer Engineering program are to produce graduates who will:

- design, implement and/or test hardware and/or software systems or components;
- use laboratory (instrumentation, testing, prototyping, etc.) and/or computer skills for engineering analysis and design;
- adapt and contribute to new technologies and methods, and use these in engineering design;
- if desired, pursue successfully graduate study in computer engineering or related disciplines;
- function successfully in local, national or global technology-driven industries;
- exhibit the willingness and flexibility to seek, accept and be effective in a variety of roles, such as developing and implementing solutions to problems with technical and non-technical elements, serving as a team member and leading others;
- communicate effectively in both written and verbal forms;
- exhibit high standards of personal and professional integrity and ethnical responsibility.

To earn the degree of Bachelor of Science in Engineering with a major in computer engineering, students must complete a minimum of 128 credits and satisfy the writing requirements. They must meet the following requirements: (also see *Undergraduate degree requirements*)

		Credits
General Education		24
Mathematics and science		
MTH 154-155	Calculus	8
APM 255	Introduction to Differential Equations with Matrix Algebra	4
APM 263	Discrete Mathematics	4
CHM 143	Chemical Principles (or CHM 157 or 162)	4
PHY 151-152	Introductory Physics	8
Approved math or science elective*		4
		32
Engineering core		
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
		21
Professional subjects		
Required:		
CSE 230	Object-Oriented Computing I	4
CSE 231	Object-Oriented Computing II	4
CSE 364	Computer Organization	4
ECE 276	Electric Circuits	4
ECE 327	Electronic Circuits and Devices	4
ECE 335	Signals and Systems	3
ECE 378	Digital Logic and Microprocessor Design	4
ECE 470	Microprocessor-Based System Design	4
ECE 491	Senior Design	4
		35

Electives —
Professional electives: 11 or 12 credits chosen from: **11-12**
Any 300-, 400-, or 500-level engineering, computer science courses, or concentrations (see below), or approved mathematics and science electives (see below)*
At least 4 credits must be a 400- or 500-level course.

Suggested Professional Elective Concentrations:
Communication and Networking
ECE 345 Electromagnetics I (3)
ECE 437 Communication Systems (4)
ECE 447 Antennas (4)
ECE 450 Satellite-Based Positioning System (4)
CSE 447 Computer Communications (4)

Microelectronics
ECE 384 Electronic Materials and Devices (3)
ECE 426 Advanced Electronic Circuit Designs (4)
ECE 485 VLSIC Design of Digital Chips (4)
ECE 487 Integrated Electronics (4)

Mechatronics

ECE 351 Electromechanical Energy Conversion I (3)
ECE 431 Automatic Control Systems (4)
ECE 472 Microcomputer-Based Control Systems (4)
ECE 475 Automotive Mechatronics I (4)

Computer Science

CIT 345 Database Design and Implementation (4)
CSE 361 Design and Analysis of Algorithms (4)
CSE 450 Operating Systems (4)
CSE 549 Wireless and Industrial Networks (4)
Free electives: (may be used to satisfy writing requirement)

4-5
Total 128

**Approved math and science electives:*
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. For more information about these selections, students are encouraged to visit with an undergraduate advisor before registering for an approved math or science elective.

APM 332 *Applied Matrix Theory*
APM 357 *Elements of Partial Differential Equations*
APM 433 *Numerical Methods*
APM 434 *Applied Numerical Methods: Matrix Methods*
APM 463 *Graph Theory and Combinatorial Mathematics*
APM 477 *Computer Algebra*
BIO 111 *Biology*
CHM 158 *General Chemistry II*
CHM 163 *Honors General Chemistry for Engineers II*
MOR 242 *Elementary Models in Operations Research*
PHY 325 *Biological Physics*
PHY 326 *Medical Physics*
PHY 331 *Optics*
PHY 366 *Vibrations and Waves*
PHY 371 *Foundations of Modern Physics*
MTH 254 *Multivariable Calculus*
MTH 275 *Linear Algebra*
MTH 352 *Complex Variables*
or others by approval by petition to the SECS Committee on Academic Standing.

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, 200, 201 or 210.
However, ECN 201 is not part of the general education requirement.

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: EGR 120, MTH 154, EGR 141, CHM 143, WRT or general education, 17 credits; winter semester – EGR 240, MTH 155, PHY 151, general education, 16 credits.

Sophomore year – fall semester: EGR 250, ECE 276, APM 255, PHY 152, 16 credits; winter semester: EGR 260, EGR 280, APM 263, general education, 16 credits.

Junior year – fall semester: CSE 230, ECE 327, ECE 335, approved math or science elective, 15 credits; winter semester: CSE 231, CSE 364, ECE 378, general education, 16 credits.

Senior year – fall semester: ECE 470, professional elective, professional elective, general education, 15-16 credits; winter semester: ECE 491, professional elective, general education, free elective, 16-17 credits.

DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING

653 SCIENCE AND ENGINEERING BUILDING (248) 370-2989
FAX: (248) 370-2699
oakland.edu/secs/isedept

Interim Chairperson: *Michael P. Polis*

Professors: *Michael P. Polis, Robert P. Van Til*

Associate Professors: *Patrick Dessert, Barbara Oakley, Sankar Sengupta, Christian C. Wagner*

Adjunct Assistant Professor: *Patrick Hillberg*

Advisory Board

The Industrial System Engineering External Advisory and Development Board will assist the department in enhancing its educational and research programs and ensuring their relevance to current and emerging technological needs. Board members are:

Greggory R. Garrett, Chief Strategy Officer – IT and Innovation, Volkswagen Group of America
Jeanne E. VanBuren, Senior Manager, Advanced Manufacturing Engineering, Chrysler LLC

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 program in Industrial and Systems Engineering;
- a master's program in Engineering Management with the cooperation of the School of Business Administration.

Also, the department actively participates in the school-wide doctoral program in Systems Engineering.

Major in industrial and systems engineering

Industrial and systems engineering is a discipline with roots in a diverse spectrum of engineering fields including the understanding and application of techniques for work measurement, ergonomics, optimization, facility layout, engineering economic analysis, and life cycle processes. The Industrial and Systems Engineering Department applied this diversity in developing an industrial and systems engineering program that focuses on the application of these skills into a particular domain. Typical domains addressed by industrial and systems engineering in the modern world include product design, manufacturing, health care, logistics, service and entertainment industries, and racing. The coordination of engineering tasks and the assembly of a complex array of human and engineering subsystems into a holistic solution are typical of the industrial and systems approach to problem solving and design.

The program emphasizes the important role of the computer in system design and analysis.

Program Educational Objectives

The objectives of Industrial and Systems Engineering programs are to produce graduates who will:

- design complex human and engineering systems composed of diverse components that interact in prescribed ways to meet specified objectives;

- use laboratory (instrumentation, testing, prototyping, etc.) and/or computer skills for engineering analysis and design;
- adapt and contribute to new technologies and methods, and use these in engineering design; if desired, pursue successfully graduate study in industrial and systems engineering or related disciplines;
- function successfully in local, national or global technology-driven industries;
- exhibit the willingness and flexibility to seek, accept and be effective in a variety of roles, such as developing and implementing solutions to problems with technical and non-technical elements, serving as a team member and leading others;
- communicate effectively in both written and verbal forms;
- exhibit high standard of personal and professional integrity and ethnical responsibility.

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 a writing requirement (see Undergraduate degree requirements) and meet the following requirements:

		Credits
General education (**excluding mathematics and science**)		24
Mathematics and science		
MTH 154-155	Calculus	8
MTH 254	Multivariable Calculus	4
APM 255	Introduction to Differential Equations with Matrix Algebra	4
CHM 143	Chemical Principles (or CHM 157 or 162)	4
PHY 151-152	Introductory Physics	8
Approved science elective**		4
		32
Engineering core		
EGR 120	Computer 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
		21
Professional subjects		
Required		
ISE 318	Engineering Statistics and Economic Analysis	4
ISE 330	Engineering Operations Research	4
ISE 341	Work Methods and Ergonomics	4
ISE 469	Computer Simulation of Discrete Event Systems	4
ISE 480	E-Commerce and ERP	4
ISE 483	Production Systems and Workflow Analysis	4
ISE 485	Statistical Quality Analysis	4
ISE 487	Foundations of Systems Engineering I	4
ISE 484	Flexible and Lean Manufacturing Systems	4
ISE 491	Senior Design	4
		40

Select 7-8 credits from professional electives below, at least one course from group A

Group A:		
ISE 422	Robotic Systems (4)	
ISE 430	Engineering Operations Research – Stochastic Models (4)	
ISE 441	Human Factors (4)	
ISE 464	Design for Manufacturing and Assembly Analysis (4)	
ISE 488	Foundations of Systems Engineering II (4)	
ME 474	Manufacturing Processes (4)	
Group B:		
ISE 490**	Senior Project (2-4)	
ISE 494**	Independent Study (2-4)	
ME 308	Computer-Aided Design (3)	
ME 372	Properties of Materials (4)	
ECE 463	Foundations of Computer-Aided Design (4)	
OSH 331	Occupational Safety I: Engineering and Technology (3)	
		7-8
Free Electives (may be used to satisfy writing requirement) For limitations on free electives see Policies on electives.		3-4
	Total	128

**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 list of additional approved math or science electives: APM 332, APM 357, APM 433, APM 434, APM 455, APM 463, APM 477, BIO 111, BIO 341, BIO 351, BIO 443, CHM 158, CHM 163, MTH 256, MTH 352, PHY 325, PHY 326, PHY 331, PHY 361, PHY 366, PHY 371, PHY 431, PHY 445 or other math or science courses with approval by petition to the SECS Committee on Academic Standing. Students are encouraged to meet with an SECS undergraduate advisor before registering for an approved math or science elective.*
***Needs prior permission of the chairperson of the Department of Industrial and Systems Engineering.*

Economics requirement

In addition to the requirements stated above, industrial and systems engineering students must fulfill the economics requirement. This may be met by completion of ECN 150, 200, 201 or 210. However ECN 201 is not part of the general education requirement.

General business

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* in the Business Administration portion of this catalog). Credits from the minor may be used to satisfy the social science general education requirement, the economics requirement, and the free elective requirement.

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 2.00 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.

Sample industrial and systems 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: EGR 120, MTH 154, CHM 143, EGR 141, general education; 17 credits, winter semester: MTH 155, PHY 151, EGR 240, general education; 16 credits

Sophomore year —fall semester: —MTH 254, PHY 152, EGR 250, general education; 16 credits, winter semester: APM 255, EGR 260, EGR 280, general education; 16 credits

Junior year —fall semester: ISE 318, ISE 341, general education; science elective; 16 credits, winter semester: ISE 330, ISE 487, ISE 469, general education; 16 credits

Senior year —fall semester: ISE 480, ISE 483, professional elective; free elective, 15 credits, winter semester: ISE 485 , ISE 491, ISE 484, professional elective, 16 credits

DEPARTMENT OF MECHANICAL ENGINEERING

170 DODGE HALL (248) 370-2210

Chairperson: *Zissimos P. Mourelatos*

Professors emeriti: *Robert Edgerton, Michael Y.Y. Hung, Gilbert L. Wedekind*

Professors: *Gary C. Barber, Bhushan, L. Bhatt, Randy Gu, Keyu Li, Zissimos P. Mourelatos, Sayed Nassar, Lianxing Yang*

Associate professors: *Yin-Ping Chang, Laila Guessous, Ching L. Ko, Christopher Kobus, Michael A. Latcha, Qian Zou, Brian P. Sangeorzan, Lorenzo Smith*

Assistant professors: *Xia Wang, David Schall*

Adjunct professors: *Ismat Abu-Isa, Alex Alkidas, Dennis Corrigan, Yung-Li Lee*

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-Li Lee, Ph.D., Senior Specialist, Chrysler, LLC
Yucong Wang, Ph.D., Surface Engineering and Tribology Center, General Motors Powertrain
Casilda de Benito, Ph.D., Innovation, Chrysler Group LLC
David Lamb, Ph.D., Deputy Chief Scientist, TARDEC
Ren-Jye Yang, Ph.D., Senior Tech Leader, Optimization and Robustness, Ford
Rohit Paranjpe, Ph.D., Director, GM Powertrain

Mission

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 options. The department also offers a master's program in mechanical engineering and a Ph.D. in mechanical engineering.

Major in mechanical engineering

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 the student 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 computers is interwoven through the curriculum. The program also provides numerous engineering design experiences.

Program educational objectives

The objectives of the Mechanical Engineering program are to produce graduates who will:

- analyze, design, develop and/or test components or systems in the areas of mechanics and/or fluid and thermal sciences;
- use laboratory (instrumentation, testing, prototyping, etc) and/or computer skills for engineering analysis and design;
- adapt and contribute to new technologies and methods, and use these in engineering design;
- if desired, pursue successfully graduate study in mechanical engineering or related disciplines;
- function successfully in local, national or global technology-driven industries;
- exhibit the willingness and flexibility to seek, accept and be effective in a variety of roles, such as developing and implementing solutions to problems with technical and non-technical elements, serving as a team member and leading others;
- communicate effectively in both written and verbal forms;
- exhibit high standards of personal and professional integrity and ethical responsibility.

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Requirements for major in mechanical engineering

To earn the degree of Bachelor of Science in Engineering with a major in mechanical engineering, students must complete a minimum of 128 credits, satisfy a writing requirement (see *Undergraduate degree requirements*) and meet the following requirements:

		Credits
General Education (excluding mathematics and science)		**24**
Mathematics and science		
MTH 154-155	Calculus	8
APM 255	Introduction to Differential Equations with Matrix Algebra	4
MTH 254	Multivariable Calculus	4
CHM 143	Chemical Principles (or CHM 157 or 162)	4
PHY 151-152	Introductory Physics	8
Approved math or science elective (See list of courses below)		4
		32
Engineering core		
EGR 120	Computer 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
		21
Professional subjects		
Required:		
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 or ME 482 Fluid and Thermal Systems Design	4
ME 492	Senior Mechanical Engineering Design Project or ME 490* Senior Project	4
		35

Electives —
Professional electives: three mechanical engineering electives (see description below) 12

Free electives: (may be used to satisfy writing requirement) 4

Total 128

**ME 490 requires approval of project proposal by the Mechanical Engineering Dept., if taken in place of ME 492 and project must be team-based.*

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, 200, 201 or 210. However, ECN 201 is not part of the general education requirement.

Performance requirements

In addition to previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.00 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 three repeat attempts are permitted.

Approved math or science electives

Students majoring in mechanical engineering are advised to take MTH 275 to broaden their knowledge of linear algebra. However, students having an explicit interest in broadening their knowledge in a specific area of mathematics or science should elect a course from the following approved course list. For more information about these selections, students are encouraged to visit with an undergraduate adviser before registering for an approved math or science elective.

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 158	General Chemistry II (5)
BIO 111	Biology (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)

Or others by approval by petition to the SECS Committee on Academic Standing.

Mechanical engineering electives

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 a ECE, 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 options listed below to satisfy the mechanical engineering electives requirement. These options list elective courses that are fundamental to each area, as well as other relevant professional electives.

Professional options

1. **Energy, fluid and thermal systems option**
   This option 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 option**
   This option 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 option**
   This option 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 option
This option includes courses in the manufacturing area.

Recommended fundamental subjects:
ME 472 Material Properties and Processes (4)
ME 474 Manufacturing Processes (4)

Other relevant courses:
ME 467 Optical Measurement and Quality Inspection (4)
ME 473 Flexible Manufacturing Systems (4)
ME 478 Robotic Systems (4)
ME 488 Mechanical Computer-Aided Manufacturing (4)
ECE 431 Automatic Control Systems (4)
ISE 483 Production Systems and Workflow Analysis (4)
ISE 484 Flexible Manufacturing Systems (4)
ISE 485 Statistical Quality Analysis (4)

5. Plastics and Composites Manufacturing Engineering option
This option includes courses in the plastics and composites manufacturing area.

Recommended fundamental subjects:
ME 443 Polymeric Materials (4)
ME 544 Plastics Processing Engineering (4)

6. Nuclear Engineering option
This option 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 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 needs a pre or co-requisite of ME 479)

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: EGR 120, MTH 154, CHM 143, EGR 141, general education, 17 credits; winter semester: MTH 155, PHY 151, EGR 240, general education, 16 credits.

Sophomore year — fall semester: APM 255, PHY 152, EGR 250, general education, 16 credits; winter semester: MTH 254, EGR 260, EGR 280, general education, 16 credits.

Junior year —fall semester: ME 322, ME 331, ME 372, general education, 16 credits; Winter semester: ME 308, ME 361, free or professional elective, science elective, 15 credits.

Senior year— fall semester: ME 421, ME 486, one professional subject (required or elective), general education, 16 credits; winter semester: ME 492, three professional subjects (required or elective), 16 credits.

ENGINEERING SCIENCES PROGRAMS

Major in engineering biology

Coordinator: *Lian Xiang Yang (Engineering)*

Advisers: *Mohammad Siadat (Engineering), Shaleish Lal (Biological Sciences*)

Steering Committee: *Mohammad Siadat (Engineering), Shaleish Lal, chair (Biological Sciences), Charles Lindemann (Biological Sciences), Lian Xiang Yang, Xia Wang (Engineering)*

The program in engineering biology, 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.

To earn the degree of Bachelor of Science with a major in engineering biology, students must complete a minimum of 130 credits, satisfy writing requirement (also see *Undergraduate degree requirements*) and meet the following requirements:

		Credits
General Education		24
Core Courses		
MTH 154-155	Calculus I and II*	8
APM 255	Introduction to Differential Equations with Matrix Algebra	4
MTH 254	Multivariable Calculus	4
STA 226	Applied Probability and Statistics	4
		20
PHY 151-152	Introduction to Physics I and II*	8
		8
CHM 157-158	General Chemistry I and II (includes Lab)	10
CHM 201	Introduction to Organic and Biological Chemistry	4
		14
BIO 111-113	Biology I and II*	8
BIO 116	Biology Laboratory*	1
BIO 321	Physiology, or BIO 309 Biology of the Cell, or BIO 319 General Microbiology	4
BIO 325	Biochemistry I	4
BIO 341	Genetics	4
		21
EGR 120	Computer 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
		17
EGB 390	Introduction to Engineering Biology	3
EGB 490	Research Project/Capstone Design	3
		6
Core Subtotal		86

**These course sequences satisfy the general education requirements for the formal reasoning, natural science/technology and knowledge applications categories.*

Professional Subjects (Choose one of 5 tracks) see below	15-16
Free Electives[1]	4-5
Grand Total[2]	130

Professional Track 1: Bioinformatics

Required: (Choose four courses including BIO 443 and CSE 461)

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
		16

[1]Students can use the free electives credit to satisfy the writing requirements.
[2]The general CAS distribution requirement does not apply to this program.

Professional Track 2: Biomedical and Biophysical Engineering**

Required: (Choose four courses)

PHY 325	Biological Physics	4
ME 361	Mechanics of Materials	4
ME 456	Energy Systems Analysis and Design or PHY 421 Thermodynamics	4
ME 461	Analysis and Design of Mechanical Structures (requires ME 361)	4
ME 467	Optical Measurement and Quality Inspection	4
		16

Professional Track 3: Computational Biology

Required:

MTH 275	Linear Algebra	4
APM 405	Special Topics	4
BIO 482	Evolutionary Biology or BIO 483 Community and Population Biology	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
		15

Professional Track 4: Electronic Devices/Signal Analysis/Bio-sensors**

Required:

ECE 276	Circuits and Systems	4
ECE 327	Electronic Circuits and Devices	4
ECE 384	Electronic Materials and Devices	3
PHY 405	Intro to Nanotechnology or	
ECE 566	Micro- and Nano-Embedded Systems	4
PHY 325	Biological Physics or	
CHM 427	Electrochemistry	4
		16

Highly Recommended:

In addition to the required courses, students are strongly encouraged to consult their faculty adviser for advice on taking more advanced courses related to this emerging track.

Professional Track 5: Molecular Engineering Biology

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

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 or	4
BIO 421	Medical Microbiology	16

Performance requirements

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.00 in the courses taken to satisfy the engineering, chemistry, and mathematics and physics requirements.

Major in engineering chemistry

Coordinators: *Ching L. Ko (engineering), Jennifer Tillinger (chemistry)*

The program in engineering chemistry, 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 provides for intensive study in chemistry, along with basic preparation in engineering.

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:

		Credits
General education		**24**
Mathematics and physics		
MTH 154-155	Calculus	8
APM 255	Introduction to Differential Equations with Matrix Algebra	4

MTH 254	Multivariable Calculus	4
PHY 151-152	Introductory Physics	8
		24

Chemistry

CHM 157-158 (or CHM 162-163)	General Chemistry (or CHM 167-168)	8-10
CHM 234-235	Organic Chemistry	8
CHM 237	Organic Chemistry Laboratory	2
CHM 325	Analytical Chemistry	4
CHM 342-343	Physical Chemistry	8
CHM 348	Physical Chemistry Laboratory	2
CHM 471	Structure and Synthesis of Polymers	3
Plus one lecture or laboratory course (two or three credits) above CHM 400		2 (3)
		37(40)

Engineering

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
		25

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)

8

Capstone Course

EGR 491 or CHM 491	3
Free electives (may be used for writing requirement)	4 (7)
	Total 128

Performance requirements

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.00 in the courses taken to satisfy the engineering, chemistry, and mathematics and physics requirements.

Major in engineering physics

Coordinators: *Hoda Abdel-Aty-Zohdy (engineering), 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. 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:

		Credits
General education		**24**
Mathematics and sciences		
MTH 154-155	Calculus	8
MTH 254	Multivariable Calculus	4
APM 255	Introduction to Differential Equations with Matrix Algebra	4
CHM 143	Chemical Principles (or CHM 157 or 162)	4
PHY 151-152	Introductory Physics	8
PHY 158	General Physics Laboratory	2
PHY 317	Modern Physics Laboratory	2
PHY 351	Intermediate Theoretical Physics	4
PHY 361	Mechanics I	4
PHY 371	Foundations of Modern Physics	4
Another course in physics in addition to any required in options below, chosen from:		
PHY 331	Optics (4)	
PHY 366	Vibrations and Waves (4)	
PHY 381	Electricity and Magnetism I (4)	
PHY 472	Quantum Mechanics I (4)	
		48
Engineering		
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	Circuits and Systems	4
ECE 327	Electronic Circuit and Devices	4
EGR 491 or PHY 490	Capstone Design / Independent Research	3
		32

Professional options

(The following two options are offered as typical. Select 12 credits from one of these. Students with different interests can construct different options in consultation with the program coordinators.)

Solid state physics and technology option		
ECE 384	Electronic Materials and Devices	4
PHY 472	Quantum Mechanics I	4
Design elective, chosen from:		4
ECE 378	Digital Logic and Microprocessor Design (4)	
ECE 426	Advanced Electronic Circuit Designs (4)	
ECE 437	Communication Systems (4)	
ECE 470	Microprocessors-based Systems Design (4)	
ECE 487	Integrated Electronics (4)	
		12

Applied mechanics option

PHY 366	Vibrations and Waves	4
ME 322 or 361	Engineering Mechanics or Mechanics of Materials	4
Design elective, chosen from:		4
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)	
		12

Technical electives, choose 6 to 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 I (4) or
PHY 418	Modern Optics Laboratory (2)
PHY 472	Quantum Mechanics I (4)
PHY 482	Electricity and Magnetics II (4)
ECE 352	Electromagnetics and Electromechanisms (4)
ECE 378	Digital Logic and Microprocessor Design (4)
ECE 384	Electronic Materials and Devices (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)	

6-8

Free electives (may be used to satisfy writing requirement) 4-6

Total 128

Performance requirements

In addition to the previously stated requirements, satisfactory completion of the program requires an average grade of at least 2.00 in the engineering and computer science courses and also in the mathematics and science courses taken to meet program requirements.

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.

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, winter.

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: 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.
Prerequisite: EGR 141.
Prerequisite or Corequisite: MTH 155, PHY 151.

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. Repeat course for ME 241. Offered fall, winter.
Prerequisite: CHM 143 (or 157), EGR 141, PHY 151, APM 255 (or 257 and MTH 256; or APM 257 and MTH 275.
Corequisite: APM 255 (or APM 257 and MTH 256; or APM 257 and MTH 275.

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: EGR 141, 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. Offered fall, winter.
Prerequisite: EGR 120, 240.
Corequisite: EGR 250, 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 491 Capstone Design (3-4)
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: 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: 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: 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.
Prerequisite: 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. Offered fall, winter. (Cross-listed with CSE 130). *Satisfies the university general education requirement in the formal reasoning knowledge foundation area.*
Prerequisite: 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: MTH 062.

CIT 230 Introduction to Object-Oriented Programming (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, algorithms and event driven programming concepts are introduced.
Prerequisite: CIT 130 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: high level programming course or CSE 230 or CIT 230.

CIT 248 Computer Systems (4)
Introduction to computer systems. Topics cover computer system components including hardware components, storage devices, memory, graphics accelerators, communications interfaces, and CISC and RISC processors, operating system, concepts including Unix. Issues in cost, performance, security, and compatibility and benchmarking.
Prerequisite: CIT 230.

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: 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: 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: 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: 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, period tasks automation, network file systems and data backup techniques, server deployments, and system performance analysis techniques. The course has a significant lab component.
Prerequisite: 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: 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: 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: major standing in IT.

CIT 402 Professional Practice (2)
Seminars on software piracy, hacking, privacy, professional conduct and the impact of information technology on society.
Prerequisite: major 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: 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: 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: CIT 337, CIT 345, and (CIT 350 or CIT 352), senior standing in IT.

CIT 495 Special Topics (2 to 4)
Advanced study of special topics. May be taken more than once.
Prerequisite: 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: 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: 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: 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. (Cross-listed with CIT 130). *Satisfies the university general education requirement in the formal reasoning knowledge foundation area.*
Prerequisite: MTH 062 or equivalent.

CSE 142 Introduction to C Programming and Unix (2)
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.
Prerequisite or Corequisite: MTH 154 or equivalent.

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.
Prerequisite: EGR 141 or CIT 130 or CSE 130 or 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: 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: 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: 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: 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: 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: 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: 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: 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: 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: CSE 231, 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. Crosslisted with CIT 337.
Prerequisite: major standing.

CSE 343 Theory of Computation (4)
Formal models of computation, including finite state automata, pushdown automata and Turing machines. Regular and context-free languages. The computational models are used to discuss computability issues. Offered winter.
Prerequisite: CSE 361 and major standing in 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, load balancing, compatibility, ODBC and JDBC, and database systems administration. (Cross-listed with CIT 345).
Prerequisite: 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: 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: 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: EGR 240 and major standing in CS.

CSE 402 Professional Practice (2)
Seminars on software piracy, hacking, privacy, professional conduct, and the impact of information technology on society.
Prerequisite: major standing.

CSE 450 Operating Systems (4)
Introduction to the concepts and design of multi-programmed operating systems. Typical topics include: historical perspectives, sequential processes, concurrent processes, processor management, memory management, scheduling, file management, resource protection, a case study. Offered fall, winter.
Prerequisite: 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: 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: CSE 378 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: CSE 337, 345 and 364, major standing and senior standing.

CSE 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: 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: major standing.

CSE 495 Special Topics (2 to 4)
Advanced study of special topics. May be taken more than once.
Prerequisite: major standing.

The 500 level CSE courses are graduate level courses. These are open to undergraduate students with instructor permission and major standing.

CSE 522 Objective Oriented Analysis and Design (4)
This course covers the methodologies of object oriented (OO) modeling during the planning, analysis and design stages of software systems development. Predominant methodologies and techniques such as the Unified Modeling Language (UML) will be surveyed. OO programming using an OO language such as C++ or Java is not covered in this course. Topics include both process oriented issues, such as the application of use case modeling during OO requirements analysis, and product-oriented issues, such as the definition of an OO design using class diagrams. Student must meet prerequisites (CSE 337, CSE 505, CSE 506 and CSE 507) or equivalent.

CSE 538 Software Verification and Testing (4)
The course consists of three main parts: Formal Verification (proofs of correctness), Static Program Analysis (detection of program anomalies, explanatory analysis, static debugging) and Dynamic Program Analysis (testing and debugging), the latter two representing software engineering approach to software verification. Most of the course consists of lectures by the instructor and discussions of the assignments. If the size of the class is relatively small, a seminar could be required in lieu of an assignment. Two software tools re used: SPARK (Static Analysis, Verification), and STAD, System for Testing and Debugging, for static analysis and testing. Student must have graduate standing.

CSE 542 Rapid Proto and Component Software (4)
Methodologies for rapid prototyping and component software use. Topics include: platforms for rapid prototyping and object-oriented software development; available software components; object request brokers (COM/CORBA/OLE); data modeling, transaction processing and federated database; client and server web technologies. A theory and project oriented course.

CSE 549 Wireless and Industrial Networks (4)
Wireless networking topics covered include wireless computer network protocols (802.11, WiMax), wireless personal area network protocols (Bluetooth, ZigBee), wireless sensor networks and cellular networks. Industrial and embedded networking topics covered include Controller Area Network (CAN), Modbus, Profibus, Foundation Fieldbus and Industrial Ethernet. Networking applications are designed and implemented as student projects. Student must meet the prerequisite (CSE 447) or equivalent. Recommended prerequisite: MTH 275 and STA 226 or equivalent.

CSE 555 Visual Computing (4)
Visual computing is the confluence of computer vision, image processing and analysis, computer graphics, and visual information management. This course covers fundamentals of visual computing with emphasis on image processing, image analysis and graphics rendering. The topics to be covered include: image filtering, image compression, image segmentation, image morphing, 2D/3D primitives, 2D/3D geometry transformation, 2D/3D rasterization, illumination and animation.
Recommended prerequisite: MTH 275 and STA 226 or equivalent.

CSE 581 Information Retrieval and Knowledge Discovery (4)
This course covers the models for information retrieval from text and multimedia databases. Methodologies for database indexing and visualization are discussed. Statistical and deterministic algorithms for discovering knowledge from databases, including, decision trees, clustering, regression, and neural models are covered. Students must meet prerequisite (CSE 545) or equivalent.

CSE 583 E-Commerce and ERP (4)
This course focuses on the evolving technologies on the world wide web that support new models of business. These models include 1) electronic commerce with concerns of fault tolerance, security, and 24x7 availability and 2) ERP with concerns of financial, human resource and manufacturing systems

integrating together into inter-company supply chain systems. Credit cannot be received for both CSE 583 and ISE 580.

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: EGR 240.
Prerequisite or corequisite: APM 255.

ECE 327 Electronic Circuits and Devices (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. Offered fall, winter.
Prerequisite: ECE 276.

ECE 335 Signals and Systems (3)
Laplace transform, transfer function, pole-zero pattern, and introduction to state-space concepts in the analysis of electrical and mechanical lumped-parameter linear systems. Systems modeling in differential equation and Laplace transform domains. Natural and forced responses of first-order, second-order, and higher order linear time-invariant systems. Introduction to frequency response analysis. Introduction to Fourier analysis of signals and systems. Bode plots. Offered fall, winter.
Prerequisite: ECE 276.

ECE 345 Electromagnetics I (3)
This course provides students with an understanding of Maxwell's equations with emphasis on the properties of materials, electrostatics, magnetostatics and theory and application of transmission lines. A thorough review of waves, phasors and vector calculus is also provided to lay the mathematical foundation to cover the topics in this course.
Prerequisite: ECE 276 or 316, MTH 254 and major standing.

ECE 351 Electromechanical Energy Conversion I (3)
Magnetic circuits, transformers, magnetic energy and force/torque, and necessary condition of electromechanical energy conversion. DC and AC machines and their equivalent circuits, input/output characteristics, torque analysis and power efficiency. Introduction to DC motor drives and position/speed control systems.
Prerequisite: ECE 276 or 316 and major standing.

ECE 378 Digital Logic and Microprocessor Design (4)
Development of components and techniques needed to design basic 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. Design of dedicated microprocessors and their implementation in an FPGA. With laboratories. Offered fall, winter, summer.
Prerequisite: EGR 240 and major standing.

ECE 384 Electronic Materials and Devices (3)
Semiconductor materials and device physics; charge carriers and conduction mechanisms, Energy Band Diagram. 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. Offered fall and winter.
Prerequisite: 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: ECE 335 and major standing.

ECE 426 Advanced Electronic Circuit Designs (4)
Design and analysis of analog circuits. Analysis and design of differential amplifiers. Design of signal generators and function generators. Introduction to measurement sensors and interfacing. Introduction to sensors including bio-medical and micro-electromechanical (MEMS) based measurement circuits and systems. Emphasis on analysis and design through a sequence of laboratory experiments and short projects. Offered winter.
Prerequisite: ECE 327 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: ECE 327 and major standing.

ECE 429 Introduction to Power Electronics (4)
Power semiconductor devices and circuits. AC/DC Converters. Thyristors and commutation 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: ECE 327 and major standing.

ECE 431 Automatic Control Systems (4)
Mathematical modeling of dynamic systems, transfer functions, state-space representation, time domain transient and steady-state response analyses; stability theory and stability criteria; root-locus analysis and design; frequency-response analysis and designs; design of proportional, integral and derivative controllers, compensation networks. Use of Matlab and Simulink.
Prerequisite: ECE 276 or 316, and 335 and major standing.

ECE 433 Control System Design (4)
Design methodology for control systems via state space approach; modeling and transformation. Physical systems, time response, stability, transition matrix, state feedback control. Integrated system design, state observers. Analytical and computer simulations. Course includes a project to model, design, implement and evaluate a controller for a practical system. Offered fall.
Prerequisite: ECE 431 and major standing.

ECE 437 Communication Systems (4)
Basic modules in communications systems and their functions; signal characteristics: bandwidth, power and energy; filtering; functions of the basic modules, filters, mixers, modulators, demodulators, PLL; amplitude modulation; frequency modulation; sampling and quantization. Offered fall and winter.
Prerequisite: ECE 335 and ECE 327 and major standing.

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/transienty analyses of DC and AC electric machines. Speed control of DC and AC motors with industrial applications. With laboratories.
Prerequisite: ECE 351 and major standing.

ECE 443 Electromagnetics II (4)
Discussion of electromagnetic fields. Application of field theory to solution of problems from various branches of electrical engineering. Included are relation of field theory to circuit theory, Poynting's theorem, stored energy and power flow, complex fields and power, transverse electromagnetic waves, uniform plane waves and wave reflection/refraction at normal incidence.
Prerequisite: ECE 345 or ECE 352 and major standing.

ECE 447 Antennas (4)
Introduction to antenna performance parameters including field patterns, power patterns, beam area, directivity, gain, beam efficiency, radiation intensity, antenna apertures, impedance, polarization, and the radio communication link. Dyadic Green's Function, radiation from current elements such as a dipole and a current loop, far-zone fields, arrays of point sources. Antenna modeling and measurement techniques will be introduced. Course will incorporate labs and/or laboratory demonstrations.
Prerequisite: ECE 345 or 352 or 443 and major standing.

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. Offered fall.
Prerequisite: ECE 335 and major standing.

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. Offered winter.
Prerequisite: ECE 335 and major standing.

ECE 463 Foundations of Computer-Aided Design (4)
Computer-aided design as the cornerstone of computer-aided manufacturing. Presentation and exploration of "generic" CAD architecture. Mathematical representations of CAD primitives, surfaces and solids and manipulation. Comparison of wire-frame, surface, 2-1/2 D and solid models. Covers IGES, STEP, CALS, DXF standards. Description of "feature based CAD" and the CAD manufacturing link. Prerequisite: major standing.

ECE 469 Computer Simulation in Engineering (4)
Simulation as modeling tool for discrete-event and continuous systems, general principles of simulation, statistical models, input modeling, random variable generation, model building using a commercial simulation language, model verification and validation, determination of run length, output analysis, variance reduction techniques. Design and optimization of production service systems. Offered winter.
Prerequisite: major standing and ECE 335.

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: ECE 378 and major standing.

ECE 472 Microcomputer-based Control Systems (4)
Computer-aided engineering, analysis, design, evaluation of control systems. Microcomputer/microprocessor-based hardware and software development of digital controllers, estimators, filters. Data acquisition, signal conditioning and processing circuits, graphics displays. On-line system level and board-level microcomputer-based control experiments. Laboratory and projects emphasize real-time applications, programming and hardware integration. With laboratory. Offered winter.
Prerequisite: ECE 327 or ECE 473, and ECE 431 and major standing.

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: 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 product design; mechatronics case studies. With laboratory.
Prerequisite: ECE 276 or 316, and 335 and major standing.

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. Offered winter.
Prerequisite: ECE 384 and major standing.

ECE 487 Integrated Electronics (4)
Modern microelectronics processes and fabrication of integrated circuits. Crystal growth, wafer preparation, photolithography, dielectric and polysilicon film deposition, epitaxial growth, oxidation, diffusion, ion implantation, etching, metallization and integrated circuits layout principles. Introduction to MOS-based and bipolar transistor-based microcircuits design and fabrication. Fabrication processing simulation using SUPREM. With laboratory and projects.
Prerequisite: ECE 384 and major standing.

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: 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-discipilinary 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 for Electrical Engineering majors: ECE 327, 345, 351 and ECE 378.
Prerequisite for Computer Engineering majors: ECE 327, 378 and 470.
Corequisite for Electrical Engineering majors: ECE 431, 437.

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: major standing.

ECE 495 Special Topics (2 to 4)
Advanced study of special topics in engineering. May be taken more than once.
Prerequisite: major standing.

The following courses are graduate level courses open to undergraduate students with instructor permission and major standing:

ECE 525 Instrumentation and Measurements (4)
Errors in measurements, error corrections and minimization; transducers and their applications; signal conditioning and interfacing; electromagnetic compatibility and interference problems in instrumentation; measurement instrument and their characteristics. Measurement systems, signal analyzers and data acquisition systems; signal conversion; computer and microprocessor-based instrumentation. With project. Offered fall. Previously EE 525. Credit cannot be received for both ECE 525 and EE 525.

ECE 527 High-Frequency Electronics (4)
Transmission lines with sinusoidal and pulse excitation. Passive and active circuit components at high frequency. High frequency amplifiers, communication circuits, waveform generators and digital circuits. Introduction to high frequency measurements. Previously EE 726, EE 626 and EE 527. Credit cannot be received for more than one of ECE 527, EE 527, EE 526, and EE 726.

ECE 533 Random Signals and Processes (4)
Provides the foundation needed to work with the random signals which are encountered in engineering. Concept of a stochastic process. Characterization of random waveforms using power spectral density and the correlation function. Random signals in linear systems. Applications to engineering systems. Offered Fall. Previously EE 533. Credit cannot be received for both ECE 533 and EE 533.

ECE 534 Principles of Digital Communications (4)
Source coding, signal design, modulation and demodulation. The optimal receiver principle, synchronization, communications over narrow band channels, fading channels and error correction codes. Offered Winter. Prerequisite: At least one course from the Core and Theory group of courses. Also, students must have completed a previous course in communications systems or have instructor permission. Previously EE 534. Credit cannot be received for both ECE 534 and EE 534.

ECE 537 Digital Signal Processing (4)
Analysis of discrete signals and systems. Introduction to digital filers including finite and infinite impulse response filter. Discrete and Fast Fourier Transformations. Application of digital signal processing.

Offered Winter. Previously EE 537 and EE 637. Credit cannot be received for more than one of ECE 537, EE 537, and EE 637. Student must have a basic knowledge of linear systems at undergraduate level or permission of instructor.

ECE 557 Energy Conservation Systems (4)
Techniques for improving energy use in industrial and commercial applications. Topics include: energy accounting; energy auditing; energy conservation management; net energy analysis; second law methods of analysis; combined use energy systems; new technology for energy conservation; assessment of alternative technology. Previously SYS 557. Credit cannot be received for more than one of ECE 557, SYS 557, and ISE 557.
Prerequisite: At least one course from the core and theory group of courses or student must have permission of instructor.

ECE 566 Micro- and Nano-Embedded Systems (4)
This course will focus on introducing micro-scale embedded systems. This includes digital analog, mixed-mode, and micro-electromechanical systems (MEMS). An introduction to basic fabrication techniques for analog and micro-electromechanical systems will be given. The course will focus on applications that have been developed and are currently under development using mixed-mode embedded systems and MEMS, particularly for automotive, consumer products, sensors, and biomedical applications. An introduction to technology of nano-scale will be given.

ECE 567 Computer Networks (4)
Resource-sharing principles; communications and networks; packet switching; the ARPANET; network performance using principles of queuing theory; network design principles, capacity assignment; flow assignment; topological design. Other related topics. Previously EE 567. Credit cannot be received for both ECE 567 and EE 567. Prerequisite: At least one course from the core and theory group of courses, or student must have permission of instructor.

ECE 571 Mixed Signal Embedded System (4)
This course will discuss the design and analysis of embedded mixed-signal systems. Topics include study and comparison of mixed-signal microcontroller architectures, programmable digital peripherals, programmable analog peripherals, sensor and actuator interfaces, optical and analog isolation, communication standards, and development tools. A final project will be approached in top-down fashion involving, system specification, functional partition, trade-off analysis, component design, integration, and performance evaluation. Offered fall.

ECE 572 Microcomputer-Based Control Systems (4)
Computer-aided engineering, analysis, design, evaluation of control systems. Microcomputer/microprocessor-based hardware and software development of digital controllers, estimators, filters. Data acquisition, signal conditioning and processing circuits, graphics displays. On-line system level and board-level microcomputer-based control experiments. Laboratory and projects emphasize real-time applications, programming and hardware integration. With laboratory. Offered winter. This course is cross listed with an undergraduate course. Previously EE 572. Credit cannot be received for more than one of ECE 472, ECE 572, EE 472, and EE 572.

ECE 573 Embedded System Verification and Validation (4)
Topics covered include automotive embedded system requirements, verification during design, sneak circuit analysis, worst-case circuit analysis, design considering component tolerances and non-ideal behavior, thermal analysis, EMC analysis, FMEA analysis, grounding rules for circuits, six sigma, fault tolerance, risk analysis, reliability issues, trade-offs in design, delays in automotive networks, and software-in-the-loop and hardware-in-the-loop tests. Offered fall or winter.

ECE 576 Embedded System Design with FPGAs (4)
Topics covered include the use of hardware description languages such as VHDL/Verilog and C in the design of embedded systems containing an FPGA, CPU design, device drivers for FPGA cores, high-level design tools to specify, simulate and synthesize designs to FPGAs, and design examples. Hardware and software design; project-oriented course. Offered winter.

ECE 581 Integrated Circuits and Device (4)
Fundamentals of semiconductor electronics. Theory and operation of PN junctions and junction devices. MOS devices. Integrated circuits functional blocks, fabrication techniques, processing steps and equivalent circuits. Device modeling and simulation techniques. Offered Fall. Previously EE 581. Credit cannot be received for both ECE 581 and EE 581. Student must have permission of instructor.

ECE 583 Fundamentals of MEMS (4)
This course offers fundamentals of Micro-electro-mechanical Systems that involve multidisciplinary topics. In addition to systematic study of transduction principles and microfabrication technologies, variety of micro-scale transducers, including sensors and actuators, will be exemplified in detailed case study. This design-oriented course employs advanced MEMS and circuit simulation software for structural and circuit design of the MEMS devices. Students also have the chance to fabricate their designed sensors and actuators through commercial or custom microfabrication.

The following courses are graduate level courses open to undergraduate students with instructor permission:

SYSTEMS ENGINEERING

SYS 510 Systems Optimization and Design (4)
Classical optimization techniques including Lagrange multipliers and Kuhn-Tucker conditions. Computer techniques for system optimization including linear programming, constrained and unconstrained nonlinear programming. Introduction to global optimization, genetic algorithm, and dynamic programming. The course emphasizes a design experience involving system modeling, simulation and optimal design. Offered summer.

SYS 517 Probability/Manufacturing Applications (4)
Techniques and topics from probability of use to engineers, particularly those interested in manufacturing. Includes topics from statistics, control charts, propagation of error and tolerancing, analysis of queuing systems using birth and death processes and Markov chains, reliability, decision trees, etc. Offered winter. Credit cannot be received for both SYS 517 and ISE 517.

SYS 520 Signal Linear Systems Analysis (4)
Modeling and analysis of both continuous-time and discrete-time systems and signals. Time-domain and frequency-domain representation methods and transformations applied to electric circuits, mechanical systems and other dynamic systems. Fundamental theories of systems stability, controllability, observability and state-feedback control design. Computer simulation studies. Offered Fall and Summer. Credit cannot be received for both SYS 520 and ECE 520.

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 applications integration area.*
Prerequisite: completion of the general education requirement in the writing foundation 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: EGR 260 and major standing.

ISE 330 Engineering Operations Research (4)
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: major standing.

ISE 341 Work Methods and Ergonomics (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: 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: 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: ISE 330 and major standing.

ISE 441 Human Factors (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: ISE 341 and 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: 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: 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: 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: 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: 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: ISE 318 and major standing.

ISE 487 Foundations of Systems Engineering (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: 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: 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: 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. Offered fall and 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: ISE 318, 330, 341 and major standing.
Corequisite: 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: major standing.

ISE 495 Special Topics (2 to 4)
Advanced study of special topics in engineering. May be taken more than once.
Prerequisite: major standing.

MECHANICAL ENGINEERING

ME 308 Computer-Aided Design (3)
Use of engineering software in design and analysis such as: GD&T, solid modeling of machine parts, projection views layout, parametric and knowledge-based design, assembly design, sheet and metal design, build of materials, structure design, introduction of finite element method, engineering optimization, space analysis and clash detection, mechanism and kinematics of assemblies, project management. Offered fall and winter.
Prerequisite and corequisite: ME 361 and major standing.

ME 322 Engineering Mechanics (4)
Statics and dynamics of particles and rigid bodies: analysis of trusses, frames, beams, centroids and moments of inertia; kinematics, Newton's Second Law, work and energy, linear and angular impulse and momentum. With laboratory.
Prerequisite: EGR 280 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, one-dimensional conduction heat transfer and characteristics and dimensionless correlations of convection heat transfer, applications to engineering problems. Laboratory emphasizes experimental design. Offered fall, winter.
Prerequisite: EGR 250; MTH 254. Prerequisite or corequisite: EGR 280. Major standing.

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 and fracture criteria of materials with applications to design. With laboratory including two-dimensional truss and beam design on computer. Offered fall, winter.
Prerequisite: EGR 280. Prerequisite or corequisite: ME 372 and major standing.

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, winter.
Prerequisite: CHM 143 or 157, 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.
Prerequisite: ME 322 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.
Prerequisite: ME 322 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 emphasizing engineering design. Offered fall.
Prerequisite: 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.
Prerequisite: 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: 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. Offered winter.
Prerequisite: 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. Includes design project(s).
Prerequisite: ME 331.

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. Design project (and/or laboratory) required. Offered winter.
Prerequisite: EGR 250 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. With laboratory. Offered fall.
Prerequisite: ME 456, senior standing 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. Offered fall.
Prerequisite: ME 361 and major standing.

ME 467 Optical Measurement and Quality Inspection (4)
Topics include the state-of-the-art optical methods such as holography, shearography, moire, three dimensional computer vision, electronic speckle pattern interferometry and laser triangulation; with applications to measurement of displacement, vibrational mode shapes, material properties, residual stresses, three-dimensional shapes, quality inspection and nondestructive testing. Offered fall and winter.
Prerequisite: ME 361, and senior standing 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. Offered winter and summer.
Prerequisite: ME 361, ME 372 and major standing.

ME 473 Flexible Manufacturing Systems (4)
The components of flexible manufacturing systems (FMS): CNC machining centers; automated assembly; automated warehousing (AS/RS); inspection; material transport; programmable logic controllers and coordination; integration of CAD/CAM to the FMS; production planning and control; factory simulation; implementation strategies. With laboratory. Offered winter.
Prerequisite: 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. Offered fall and winter.
Prerequisite: senior standing 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. Offered fall and summer.
Prerequisite: ME 372 and senior standing 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: EGR 260 and major standing.
Prerequisite or corequisite: ME 486 or ME 487.

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. Offered fall.
Prerequisite: EGR 280 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. *Offered fall.*
Prerequisite: ME 331, ME 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. *Offered winter.*
Prerequisite: ME 456, ME 479, ME 448 and major standing.
Prerequisite or corequisite: ME 448.

ME 482 Fluid and Thermal Systems Design (4)
Study of systems involving fluid and thermal phenomena such as energy conversion, and fluid and thermal energy support. Using fundamentals studied in prerequisite courses, component and system analyses, for purpose of design optimization, are emphasized using integral, differential and lumped-parameter modeling techniques. The course focuses on the design process using design-oriented laboratory projects.
Prerequisite: 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.
Prerequisite: ME 322, senior 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. Includes major design project. Offered winter.
Prerequisite: 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. Includes design project(s) in various topics. Offered fall and summer.
Prerequisite: ME 322 and ME 361 and major standing.

ME 488 Mechanical Computer-Aided Manufacturing (4)
Use of CATIA 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, three-axis surface machining, mold tooling design, CMM and measurement data analysis, assembly simulation and structural analysis, rapid-prototyping. Includes design projects in various topics. Offered winter.
Prerequisite: ME 361 and major standing.

ME 489 Fasteners and Bolted Joints (4)
Systems approach to the analysis, and reliability of bolted joints under static and dynamic loads. Variables include the fastener, the joint, tool, control method, post assembly loads, relaxation and environmental factors. Laboratory experiments include torque tension, role of friction, ultrasonics, non-parallel contact, and elastic interactions. Offered winter.
Prerequisite: ME 486 and senior standing and major standing.

ME 490 Senior Project (3 or 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: ME 308, ME 331 and ME 361. Senior standing and major standing and approval of project proposal by ME Dept.

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. 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: ME 308, ME 331, ME 361 and major standing and senior standing.

ME 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: 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: major standing and senior standing.

INTEGRATIVE STUDIES

520 O'Dowd (248) 370-3229

Director: *Scott L. Crabill, Communication and Journalism*

Oakland University Program Coordinator: *Julie Borkin*

Macomb University Center Program Coordinator: *Anne Jackson*

Faculty Council for Integrative Studies:

Professors: *Kevin Murphy, Economics; Subbaiah Perla, Mathematics and Statistics*

Associate Professors: *Thomas Blume, Education; Scott Crabill, Communication and Journalism; Douglas Creighton, Physical Therapy; Michael Long, Human Resource Development; Mildred Merz, Kresge Library; Barbara Penprase, Nursing*

Assistant Professors: *Deborah Blair, Music Education; Jacob Cayanus, Communication; Ann Pogany, Kresge Library*

Special Instructors: *Jerry Marsh, Engineering and Computer Science*

Students: *Marilyn Beim, Donald Pascoe*

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 application questionnaire by the Integrative Studies Faculty Admissions Committee.

The Integrative Studies program is administered by the Department of Integrative Studies, 520 O'Dowd Hall, (248) 370-3229, oakland.edu/bis.

Requirements for the degree in bachelor of integrative studies

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. Students entering the university prior to this catalog may be eligible to complete the previous General Education program described in the 2004-2005 catalog (consult with a BIS coordinator for clarification).

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 online advising tutorial.
2. Meet with an Integrative Studies coordinator in a preliminary appointment. The BIS coordinator will explore the suitability of the program to student needs and interests. The BIS coordinator 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. Be assigned a faculty mentor. When pre-Integrative Studies has been declared as a program of study, students will follow up with the coordinator to finalize the plan of study form. Students and the BIS coordinator will collaboratively select a faculty mentor.
4. Develop a plan of study and application essay for the faculty mentor to review. Students will initiate a meeting with the faculty mentor to discuss their goals and the courses that may help achieve those goals.
5. Obtain committee approval. After the faculty mentor approves the plan of study and application essay, by signing the final plan, the plan of study and application essay are returned to the Integrative Studies office and sent to the Admissions Committee for approval. When the plan of study has been approved by the Committee, students 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 an 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 (520 O'Dowd Hall).

Students should consult with an Integrative Studies program coordinator to determine policies and procedures on seeking minors or concentrations.

Conciliar honors

Conciliar honors are awarded to Integrative Studies students by the Faculty Council for Integrative Studies. There are two ways in which students may earn conciliar honors. Students who have a cumulative grade point average of 3.60 or better are automatically eligible for 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. Written nominations, accompanied by faculty recommendations, should be made on the basis of excellence in scholarship, appropriate community and university experience, and/or achievement of academic distinction while overcoming extreme adversity. Nominations will be considered by the Curriculum Committee and will be forwarded to the BIS Faculty Council for final approval.

Major capstone and writing intensive course for integrative studies

All students admitted to the university beginning 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 being. *Satisfies the university general education requirement for the capstone experience. Satisfies the university general education requirement for writing intensive in the major.*

Prerequisite: Senior standing and completion of WRT 160 with at least a 2.0

SCHOOL OF HEALTH SCIENCES

363 HANNAH HALL (248) 370-3562
oakland.edu/shs Fax: (248) 370-4227

Dean: *Kenneth Hightower, Ph.D.*

Office of the Dean: *Richard Rozek, Ph.D., associate dean; Brenda K. Pierce; assistant dean; Michelle D. Southward, advising coordinator; Adrienne L. Spitzer, academic adviser*

Board of Visitors

The Board of Visitors 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 Visitors are:
Henry D. Boutros, P.T., M.Ed., Director, Center for Integrated Therapy
Vanett Capizzani, President, M. Rose Construction
Patrick Elwell, Founder, Mental Illness Research Association (MIRA)
Joseph H. Guettler, M/D, Performance Orthopedics, Sports Medicine,
Moon J. Pak, M.D., Ph.D.
Steve Piotrowski, Director, Human Resources Heartland Rehabilitation Services
Teresa Stayer, Vice President, SpectraMed

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, occupational safety and health, biomedical diagnostic and therapeutic sciences, and wellness, health promotion and injury prevention. Master of Science degrees are offered in exercise science and in safety management. 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. The Bachelor of Science degree in Applied Health Sciences allows qualified students to choose one of six academic concentration areas completed at Macomb Community College in health information technology, medical assistant, occupational therapy assistant, physical therapist assistant, respiratory therapy, or surgical technology. The Bachelor of Science degree in Health Sciences allows students to choose one of five academic concentration areas in exercise science, integrative holistic medicine, pre-physical therapy, pre-health professional studies or pre-pharmacy. Graduate certificates are available in orthopedic manual physical therapy, pediatric rehabilitation, orthopedics, neurological rehabilitation, teaching and learning for rehabilitation professionals, clinical exercise science, complementary medicine and wellness, 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, 157 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, the university general education and U.S. diversity requirement. 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 work course scheduling, transfer course evaluation, establishing academic goals, health career choices and the process of achieving major standing. The health sciences advising office is located in 317 Hannah Hall. For advising appointments please call (248) 370-2369 or schedule your appointment online at oakland.edu/shs/advising. Freshman and transfer orientation advising 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 adviser periodically to monitor their progress. 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 an adviser, students are encouraged to schedule advising appointments during times other than early registration periods. Advisers are obligated to assist students in planning their 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 health sciences programs, all petitions of exception must be reviewed by an academic adviser and the appropriate program director before referral to the 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

Applied Health Sciences Program Director: *Patricia A. Wren*

Professor Emeritus: *Ronald E. Olson*

Professors: *Gary D. Russi, Kenneth R. Hightower*

Associate professor: *Richard J. Rozek*

Clinical professors: *Moon J. Pak, Donald Bronn*

Clinical assistant professors: *J. Kay Felt*, *Todd Lininger, Lynne M. Prybys, Monica Wilkinson*

Adjunct assistant professor: *Anthony Tersigni*

Clinical instructors: *Kim Bezas, Jennifer M Cook, Angela Fern, Jennifer Guthrie, Elizabeth M. Mikulec, Donna Morrison*

The School of Health Sciences offers a Bachelor of Science in Applied Health Sciences as part of an articulation agreement with the Health and Human Services department at Macomb Community College to meet the demands of a highly educated workforce and high-performance workplace. Under the terms of this agreement, students who earn an Associate of Applied Science degree in health information technology, medical assistant, occupational therapy assistant, physical therapist assistant, respiratory therapy, and surgical technology at Macomb Community College may transfer to Oakland University and earn a B.S. in Applied Health Sciences with a health information technology, medical assistant, occupational therapy assistant, physical therapist assistant, respiratory therapy, or surgical technology concentration. Students must meet the requirements at their respective institutions; at OU that means completing university general education, U.S. diversity, writing and major requirements. The degree in Applied Health Sciences combines a broad spectrum of liberal arts and health sciences courses.

Requirements for the B.S. degree with a major in applied health sciences

1. Have already completed the course requirements for the Associate of Applied Science degree in one of the following six academic areas completed at Macomb Community College: health information technology, medical assistant, occupational therapy assistant, physical therapist assistant, respiratory therapy, or surgical technology.
2. Meet the university general education requirements (see *Undergraduate degree requirements*).
   Note that several courses under #3 below satisfy general education requirements and Applied Health Sciences degree requirements. See courses marked with "".*
3. Complete the university U.S. diversity requirement. For applied health sciences majors, this requirement is satisfied by completing HS 302.
4. Complete the following courses: AHS 340, 345, 450; HS 201; HS 302; WHP 310*; STA 225*. (*Courses that also satisfy the university general education requirement).
5. Select either the Clinical Leadership Track: HRD 304, 306, 307, 308 and 351 or the Health Promotion Track, 20 credits of electives: EXS 103, 105, 202, 204, 205, 207, 215, 304/306, 321, 350, 360, 403, 405, 410, 415, 425, 435, 445, 450, 465, 470, 475; HS 331, 441; NH 300, 311, 330/331, 340, 401, 402, 403, 404, 405, 446; WHP 208, 210, 300, 305, 315, 325, 350, 360, 370, 420 or any course approved in writing by the director/coordinator.
6. At least 32 credits at the 300-400 level are required for graduation.

Course Offerings

AHS 301 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 NH 301 and HS 301.

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. Cross-listed with EXS 304.
Prerequisite: BIO 111 and 207.
Co-requisite: 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. Cross-listed with EXS 306.
Prerequisite: BIO 111 and 207.
Co-requisite: AHS 304.

AHS 331 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. Cross-listed with HS 331.
Prerequisite: BIO 207 or 321.

AHS 335 Health Care Safety (4)
Review 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: 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: 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: 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, HS 501.
Prerequisite: BIO 111 and 207 or 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: HS 201, 302; BIO 205, 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: HS 201, 302.

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 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 MLS 450 and HS 450.
Prerequisite: WRT 160 and senior standing.

Health Information Technology concentration course requirements

Students completing the **health information technology concentration** become experts in managing patient health information, administering computer information systems and coding the diagnosis and procedures for health care services provided to patients. Health Information Technology is one of the few health occupations in which there is little or no direct contact with patients. For more information on the health information technology program at Macomb Community College, visit their website at macomb.edu/**academics/departments/hitt/default.asp.**

Students completing the Bachelor of Science in applied health sciences with a health information technology academic concentration must complete all courses required for the Associate of Applied Science in health information technology at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Medical Assistant concentration course requirements

Students completing the **Medical Assistant concentration** are prepared to perform a variety of administrative and clinical tasks to keep health care delivery settings running smoothly. Medical assistants perform many clerical as well as clinical duties. Clinical duties vary according to state law and include taking and recording vital signs and medical histories; explaining treatment procedures to patients; preparing patients for examination, and assisting during the examination. Medical assistants collect and process laboratory specimens, perform basic laboratory tests, dispose of contaminated supplies, and sterilize medical instruments. For more information on the medical assistant program at Macomb Community College, visit its website at **macomb.edu/academics/departments/mast/default.asp.**

Students completing the Bachelor of Science in applied health sciences with a medical assistant academic concentration must complete all courses required for the Associate of Applied Science in medical assistant at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Occupational Therapy Assistant concentration course requirements

Students completing the **occupational therapy assistant concentration** learn to assist occupational therapists in providing occupational therapy treatments and procedures. OTA's assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments to individuals with physical, mental or developmental disabilities to help them regain functional, productive lives. For more information on the occupational therapy assistant program at Macomb Community College, visit its website at **macomb.edu/academics/departments /otas/default.asp.**

Students completing the Bachelor of Science in applied health sciences with an occupational therapy assistant concentration must complete all courses required for the Associate of Applied Science in occupational therapy assistant at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Physical Therapist Assistant concentration course requirements

Students completing the **physical therapist assistant concentration** learn to assist physical therapists in the provision of care. Working under the direction and supervision of a physical therapist, PTAs work to restore function, reduce pain and enhance wellness in patients with a variety of conditions. Physical Therapists Assistants provide selected interventions for patients with orthopedic, neurological, athletic, occupational and congenital conditions. Students who wish to become physical therapists should note that this major does not meet the entrance requirements for the Doctor of Physical Therapy program. Students who are interested in an undergraduate degree that includes prerequisites for the Doctor of Physical Therapy program should see the major in Health Sciences with a Pre-Physical Therapy concentration. For more information on the physical therapist assistant program at Macomb Community College, visit its website at **macomb.edu/academics/departments /ptas/default.asp.**

Students completing the Bachelor of Science in applied health sciences with a physical therapist assistant academic concentration must complete all courses required for the Associate of Applied Science in physical therapist assistant at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Respiratory Therapy concentration course requirements

Students completing the **respiratory therapy concentration** are prepared to work as Respiratory Care Practitioners (RCP). RCPs monitor, evaluate and treat patients with pulmonary disease. The routine duties of a RCP include oxygen administration and monitoring, drawing arterial blood gas samples, delivery of aerosol medication, pulmonary hygiene and lung volume expansion. In the emergency and critical care areas, therapists are trained in cardiopulmonary resuscitation and are responsible for setting-up, monitoring and evaluating life support machines. For more information on the registry therapy program at Macomb Community College, visit its website at **macomb.edu/academics/departments /rspt/default.asp.**

Students completing the Bachelor of Science in applied health sciences with a respiratory therapy academic concentration must complete all courses required for the Associate of Applied Science in respiratory therapy at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Surgical Technology concentration course requirements

Students completing the surgical technology concentration are prepared to work under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. Certified surgical technologists (CSTs) work under the supervision of a surgeon to ensure that the operating room environment is safe, that the equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. For more information on the Surgical Technology program at Macomb Community College, visit their website at **macomb.edu /academics/ departments /surg/default.asp.**

Students completing the Bachelor of Science in applied health sciences with a surgical technology academic concentration must complete all courses required for the Associate of Applied Science in surgical technology at Macomb Community College before being admitted into the Bachelor of Science in Applied Health Sciences at Oakland University. See a School of Health Sciences academic adviser for more information.

Exercise Science Program (Minor or concentration)

Director: *Brian R. Goslin*

Professor Emeritus: *Alfred W. Stransky*

Professor: *Robert W. Jarski*

Associate professors: *Brian R. Goslin, Charles R. C. Marks*

Clinical professors: *Barry A. Franklin, Steven J. Keteyian, Murray B. Levin, Robert A. Levine, Augustine L. Perrotta*

Clinical associate professors: *John F. Kazmierski, Creagh E. Milford, Rajendra Prasad*

Adjunct associate professor: *Victoria Kimler*

Adjunct assistant professor: *Jack T.Wilson*

Clinical assistant professors: *Patricia Brooks, Jeffrey H. Declaire, Mario J.C. DeMeireles, Albert A. DePolo, Scott Eathorne, Johnathan Ehrman, William E. Hill, Andrew J. Madak, Chandra S. Reddy*

Clinical instructors: *Mary Ann Cukr, Terry Dibble, Lucas Humphrey, Nancy S. Kennedy, 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.*

Minor in exercise science

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; EXS 204, 304*, 306*, and 350*; and 6 credits from the

following electives, EXS 103*, 105*, 202, 203, 205, 207*, 215, 321, 360, 403, 405, 410, 415, 425, 435, 445, 450, 465, 483, 493 (2 credits maximum); WHP 208, 210, 305, 310, 360, 420. 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 226 or PSY 251.)

Course Offerings

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 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 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: 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: EXS 105, 203 or instructor permission.

EXS 207 Safety and First Aid in Exercise Settings (2)
Understanding of procedures in the immediate and temporary care of victims of an accident or sudden illness in exercise settings. Safety concerns regarding exercise facilities, equipment and programs. Certification in American Red Cross "Responding to Emergencies" and "Basic Life Support" upon completion. Fall, winter and summer semesters.

EXS 215 Stress Management (2)
Concepts and techniques to enable students to manage stress more effectively. Offered every term.

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: BIO 111 and 207.
Co-requisite: 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. Cross-listed with AHS 306.
Prerequisite: BIO 111 and 207.
Co-requisite: EXS 304.

EXS 321 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 321. Credit will not be awarded for both EXS 321 and 521.
Prerequisite: BIO 205, 207; EXS 350.

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: BIO 205.

EXS 360 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 360 and EXS 560. Offered all semesters.
Prerequisite: PSY 100, EXS 204 or EXS 304 or HS 201.

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: 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 503.
Prerequisite: 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: BIO 111 and 207, or instructor permission. BIO 205 recommended.

EXS 406 The Brain and Disease (2)
Reviews current neurological research on the brain in health and disease, including addiction, depression, stroke, viral infections, Alzheimer's and Parkinson's. Emphasis on multidisciplinary research studies on the role of exercise and nutritional antioxidants. Identical with HS 406. Summer elective.
Prerequisite: EXS 304, HS 401 or instructor permission.

EXS 410 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 410 and 610. Offered fall semester in even numbered years.
Prerequisite: EXS 350 or instructor permission.

EXS 415 Exercise Endocrinology (2)
A cellular and systems physiology approach to human hormone function during exercise. Interaction of neuron-endocrine responses during exercise and body fluid regulation, homeostasis, the immune system, regulation of fuel use, biological rhythms, reproductive cycles, analgesia and tissue repair. Hormones are ergogenic aids. Offered summer semester.
Prerequisite: BIO 207 and EXS 304, or instructor permission.

EXS 425 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. Credit will not be granted for both EXS 425 and 625. Offered summer semester.
Prerequisite: EXS 304 or permission of instructor.

EXS 435 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 435 and 635. Offered fall semester in odd-numbered years.
Prerequisite: EXS 304.

EXS 440 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: STA 225 or PSY 251.

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 545. Offered summer term.
Prerequisite: EXS 304 and 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. Credit will not be granted for both EXS 450 and 550. Offered summer term in odd-numbered years.
Prerequisite: EXS 304 and 350.

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 565. Offered summer semester.
Prerequisite: 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: 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: EXS 470.

EXS 483 Special Topics (1,2,3 or 4)
An advanced course involving the study of current topics in the practical application of exercise principles. Topics vary. May be repeated for additional credit.
Prerequisite: program director permission.

EXS 493 Directed Study and Research (1, 2, 3 or 4)
Special study areas and research in exercise science. May be repeated for additional credit. Offered every semester.
Prerequisite: program permission.

Health Sciences Program

Health Sciences Program Director: *Patricia A. Wren*

Professors Emeritus: *Ronald E. Olson, Philip Singer*

Professors: *Gary D. Russi, Kenneth R. Hightower*

Associate professor: *Richard J. Rozek*

Assistant professor: *Jennifer F. Lucarelli*

Clinical professors: *Donald Bronn, Craig Hartrick, Moon J. Pak*

Clinical assistant professors: *J. Kay Felt, Todd Lininger, Lynne M. Prybys, Monica Wilkinson*

Adjunct assistant professor: *Anthony Tersigni*

Clinical instructors: *Kim Bezas, Jennifer M. Cook, Angela Fern, Jennifer Guthrie, Elizabeth M. Mikulec, Donna Morrison*

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 five academic concentration areas to obtain greater exposure to a specific health discipline. These five academic areas include exercise science, integrative holistic medicine, pre-pharmacy, pre-physical therapy and pre-health

professional studies. Students completing the exercise science concentration area 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 including the Oakland University Graduate Certificate in Complementary Medicine and Wellness. The pre-pharmacy concentration area prepares students for application to the Doctor of Pharmacy program at Wayne State University. 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. 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.

Requirements for the B.S. degree with a major in health sciences (Concentration in Exercise Science, Integrative Holistic Medicine, Pre-Physical Therapy, or Pre-Health Professional Studies, or Pre-Pharmacy)

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*, 205, 206 or 322, 207 or 321; CHM 157*, 158; HS 201*, 302, 450; PHY 101*, 102, 158; (or PHY 151, 152, 158); PSY 100*; STA 225*. (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, pre-physical therapy, pre-health professional studies, or pre-pharmacy).

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. EXS 103, 105, 204, 207, 304, 306, 350, 401; HS 441; PSY 250, 344 (preferred), or PSY 321, 322, 323, 333, 338).
2. Complete a minimum of 16 credits (minimum of 10 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, 203, 205, 215, 321, 360, 403, 405, 410, 415, 425, 435, 445, 450, 465, 470, 475, 483, 493; HS/NH 301, 401; WHP 310, 311, 315, 325, 340, 360, 370, 420 or any other course pre-approved in writing by the health sciences director. A course may not be used to satisfy both an elective and a concentration requirement.

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. HS/NH 301; HS 441; PSY 250, 318; MLS 210; WHP 315, 350, 461, 462.

2. Complete a minimum of 18 credits from these IHM concentration elective courses: EXS 204, 215, 360; HS 331; MLS 423; NH 300, 311, 330 (and 331), 340, 401, 402, 403, 404, 405, 446; WHP 325, 340, 370 or any other course pre-approved in writing by the health sciences coordinator. A course may not be used to satisfy both an elective and a concentration requirement.

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, including the following requirements:

1. HS 401; EXS 204, 207, 304, 306, 350; MLS 210; PSY 250; MTH 141; PT 302, 321. Choose one of the following: PSY 225, 321, 322 or 323.
2. Complete a minimum of 8 elective 300/400 level credits from the following courses: BIO 323, 324, 325, 326, 341; CHM 453, 454, 457; EXS 360, 403, 405, 410, 415, 425, 435, 445, 450, 465, 493; HS/NH 301, 311; HS 331, 359, 405, 441; MLS 400, 401, 425; NH 300, 330, 331, 340, 401, 402, 403, 404, 405, 446; PHY 326; PSY 321, 322, 323, 333, 338; 341; PT 490; SOC 328; WHP (any 300/400 level); or any other 300/400 level course preapproved in writing by the health sciences director. A course may not be used to satisfy both an elective and a concentration requirement.

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:

1. BIO 113*; MLS 425; PSY 225 or 250; HS 301, 331; CHM 234, 235, 237; MTH 141.
2. Complete a minimum of 17 credits (minimum of 10 credits at 300 level or above) from the following: BIO 116, 301, 303, 319, 320, 323, 324, 325, 326, 341, 342; CHM 453, 454, 457; EXS 304, 306, 360, 403, 405, 410, 415, 425, 435, 445, 450, 465, 493; HS 301, 331, 359, 405, 441; MLS 430 and 432; PHY 326; PSY 321, 323, 333, 338; PT 490; SOC 328; WHP 300-400 level courses; or any other course pre-approved in writing by the health sciences director. A course may not be used to satisfy both an elective and a concentration requirement.

Requirements for BS degree with a major in health science with an academic concentration in pre-pharmacy

Students completing the Bachelor of Science in health sciences with an academic concentration in pre-pharmacy must complete a minimum of 124 credits including:

1. MLS 430, 432; ECN 150; CHM 234, 235, 237; HS 401, 490; MTH 154.
2. If admitted to the WSU PharmD program, 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.

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: Guaranteed admission criteria Oakland University "Health Pro Start" (for entering freshmen only):

1. High school GPA of 3.50 (recalculated, including weighting for AP/honors classes)
2. Minimum overall ACT score of 25.
3. 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.
4. Submission of a one-page typed essay describing the student is pursuing HealthPro Start and why s/he should be accepted.
5. Two letters of recommendation:
    - One from a high school teacher, counselor or administrator who is familiar with the applicant's extracurricular activities, team and/or leadership skills; and
    - One from a nonfamily member who can address the applicant's healthcare experience, community service and/or employment.

If you meet the minimum requirements and complete a separate HealthPro Start application, you will be invited to campus for a series of interviews with representatives from the Wayne State University Eugene Applebaum College of Pharmacy and Health Sciences.

Once at Oakland University, Wayne State University/Oakland University "Health Pro Start" Track One participants must:

1. Maintain a GPA at or above 3.30 during the first year in college. Maintain an overall 3.50 GPA.
2. Make regular progress towards the B.S. Degree in Health Sciences from OU, taking all courses at OU – NO TRANSFER WORK ALLOWED.
3. All course work must be successfully completed. Repeated prerequisite courses will not be allowed.
4. All PharmD prerequisites must be completed with a grade of "C" (2.0) or better.
5. Complete all academic and non-academic entrance requirements of the doctor of pharmacy program.
6. Participate in the WSU/OU HealthPro Start Seminar and Doctor of Pharmacy Program mentoring process.
7. Demonstrate continuing activity in related volunteer work.
8. Students must declare their intent to enter into the doctor of pharmacy program by August 10, just prior to their sophomore year.
9. To be considered, the applicant must successfully complete the admission requirements and submit both these applications:
    a. The Pharm CAS application.
    b. Eugene Applebaum College of Pharmacy and Health Sciences supplemental application.
10. The student must be interviewed by the Doctor of Pharmacy Program Admissions committee during the student's junior year.
11. The student must be accepted for admission into the Doctor of Pharmacy program.

a. Notification of formal admission into the Pharm D program will be provided to the student before the completion of their junior year.

12. After formal acceptance into the Doctor of Pharmacy program, the student must maintain the continuation criteria outlined above.

TRACK TWO: Competitive Admission Criteria for students who do not meet admission criteria for Health Pro Start or who are already enrolled at OU:

1. Admission to Oakland University.
2. Minimum 3.30 GPA.
3. Score above the 70th percentile on PCAT with no subscore (Writing, Verbal, Biology, Quantitative) below the 50th percentile.
4. All Pharm D prerequisites completed with at least a 2.0.
5. To be considered, the applicant must successfully complete the admission requirements and submit both these applications:
   a. The Pharm CAS application
   b. Eugene Applebaum College of Pharmacy and Health Sciences supplemental application

Course Offerings

The school 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*.

HS 101 Careers in Health (0)
An introduction to programs and career opportunities offered through the School of Health Sciences. Class meets only the first week of the fall semester. Not graded.

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 301 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. NH 300 strongly recommended as prerequisite or corequisite. Identical with NH 301, AHS 301.

HS 302 Community and Public Health (4)
Biological, psychosocial, social-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, 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: HS 201 or instructor permission.

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. Summer semester in odd-numbered years. Identical with NH 311.
Prerequisite: HS 301 or instructor permission.

HS 331 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. Cross-listed with AHS 331.
Prerequisite: BIO 207 or 321.

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 pursing 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. Crosslisted with AHS 401 and HS 501.
Prerequisite: 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: senior standing and completion of WRT 160 with at least a 2.0

HS 405 Special Topics (2, 3 or 4)
May be repeated for additional credit.
Prerequisite: permission of instructor.

HS 406 The Brain and Disease (2)
Reviews current neurological research on the brain in health in disease, including addiction, depression, stroke, viral infections, Alzheimer's and Parkinson's. Emphasis on multidisciplinary research studies on the role of exercise and nutritional antioxidants. Summer elective.
Prerequisite: EXS 304, HS 401 or permission of instructor.

HS 441 Integrative Holistic Medicine Principles and Practice (2 or 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.
Prerequisite: If 2 credits, instructor's permission required.

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 a 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: 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 490 Directed Study (1, 2, 3 or 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: departmental permission.

Biomedical Diagnostic and Therapeutic Sciences Program

Director*: J. Lynne Williams*

Professor: *J. Lynne Williams*

Assistant professors: *Sumit Dinda, Kristin Landis-Piwowar*

Clinical professors: *Larry Kestin, Brian Marples, Frank A. Vicini, Dafang Wu*

Clinical associate professors: *Barbara Anderson, Mujtaba Husain, Raymond Karcher, Harland Verrill.*

Clinical assistant professors: *Craig Basmaji, Douglas Ferry, Martha Higgins, Carol A. Holland, Barbara O'Malley, Barbara Robinson-Dunn*

Clinical instructors: *Michele M. Beauvais, Laura Bergsman, Lisa Burgess, Janice Campbell, Cheryl Culver-Schultz, Michele Deromme, Jeff Forget, M. Patricia Harvey, Leonard Kim, Nancy Lamers, JoAnne Logue-O'Malley, Larry D. Meakem, Muriel Morrison, Paul M. Nuechterlein, Laura L. Ochs, Shruti Patel, Mary L. Premo, Nancy E. Ramirez, Joseph Roszka, Joyce A. Salancy, Margaret Stack, Dawn Taylor, Terese Trost, Laura Tyburski, William VanDyke, Peggy A. Wenk, Mary A. Zamboldi*

Adjunct instructors: *Janet Castillo, Jean Garza*

The biomedical 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 sciences curriculum provides excellent preparation for entry into post-baccalaureate professional programs including physician assistant, medicine, dentistry and osteopathy.

Biomedical sciences is a very 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 sciences program at Oakland University addresses several specializations including medical laboratory science (formerly medical technology), cytotechnology, histotechnology, nuclear medicine technology, radiation therapy 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, cytotechnologists and histotechnologists are involved in the diagnosis of disease based on alterations in cells or tissues. Medical laboratory scientists (formally medical technologists) perform a wide range of diagnostic tests, including chemical, microscopic, bacteriological and immunological procedures used in the diagnosis and study of disease. 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. Radiation therapists use ionizing radiation in the treatment of cancer. Radiologic technologists utilize ionizing radiation to image internal structures of the body (x-ray).

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 internship at an accredited institution. Professional certification is obtained by successfully passing the examination.

Students may be admitted as pre-biomedical 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 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 students expense is required for acceptance into a clinical program.

All students should declare their choice of specialization by the end of sophomore year. They must complete a departmental program application at this time. The declaration of and acceptance into a student's chosen specialization shall define specialization standing for course prerequisites and professional course requirements. The junior and senior year curricula will vary depending upon the specialization.

Students not wishing to pursue professional certification or not accepted by a clinical internship program may complete the biomedical sciences degree by following the academic program for the specialization of their choice and substituting adviser approved electives for the clinical year (internship) course work. Such students will be eligible to apply for clinical internship opportunities either before or after graduation, if desired. However, only those students accepted into the radiation therapy internship program or radiologic technology internship program will be allowed to enter the respective junior year curriculum (hospital based program).

Requirements for the B.S. degree with a major in biomedical sciences

Students pursuing specializations in cytotechnology, histotechnology, nuclear medicine technology, radiation therapy or radiologic technology must complete a minimum of 136 credits, including the following requirements. Students pursuing the specialization in medical laboratory science must complete a minimum of 128 credits, including the following requirements.

Pre-professional program

1. Meet the university general education requirements (see *Undergraduate degree requirements*). Note that several courses under point #3 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 sciences core curriculum.

Professional program

4. Complete the professional course requirements specified under one of the six medical laboratory sciences specializations (medical laboratory science, cytotechnology, histotechnology, nuclear medicine technology, radiation therapy or radiologic technology).
5. Complete all biomedical sciences major program course work with a cumulative GPA of 2.80 or higher.

Biomedical Sciences Core Curriculum courses

BIO 111*, 205, 206 or 322, 207* preferred (or 321) (BIO 206 is required for RT specialization.)
CHM 157*-158
STA 225* or 226
PHY 101*-102* (For CT and HT specializations PHY 101 and/or PHY 102 can be replaced by 8 credits from BIO 409; MLS 432, 490, 498; WHP 325; HS 201, 301, 302, 331.)
MLS 201, 205, 210, 226, 450 (MLS 205 and MLS 226 are not required for RAD or RT specializations.)

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 cytotechnology, histotechnology, and radiation therapy internship programs are processed in the winter semester of the sophomore year (or following completion of the biomedical sciences core curriculum). Applications for nuclear medicine internships are processed during the winter semester of the junior year and applications for the MLS/MT internships are processed during the summer prior to the senior year. It is recommended that students have 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. The Beaumont Hospital Radiologic Technology program accepts two classes each year. Admission to the July class is typically in February, and admission for the January class is in August (approximately 5 months prior to the start of each class). Students should check 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 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 major grade point average to 2.80 or higher.

Specialization in medical laboratory science (medical technology)

Medical laboratory scientists perform diagnostic tests that afford important information to determine the presence, extent or absence of disease and provide 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 are hematology, clinical chemistry, microbiology, serology, urinalysis and immunohematology (blood bank).

Students may apply for specialization standing in MLS after completing the preprofessional program, 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 to 10 months (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 Hospital, 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: CHM 234; MLS 313, 314, 327, 328, 335, 336, 400, 401, 402, 416, 417, 423, 425, 430, 431 and 440.

Note: Some clinical programs may require MTH 141, check the individual clinical programs for current requirements.

Specialization in cytotechnology

Cytotechnologists are trained medical laboratory scientists who detect disease by light microscopic examination of cell samples from all areas of the human body. They are responsible for the collection, preparation and staining of specimens consisting of cells that have been shed, abraded or aspirated from body tissues. Cytotechnologists are able to detect abnormal cells and provide preliminary diagnostic information.

Students may apply for specialization standing in cytotechnology after completing the preprofessional program. Application to the hospital-based internship is 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 cytotechnology.

The junior year consists of the prescribed professional course requirements at Oakland University. The senior year consists of a 12-month internship at an approved hospital school of cytotechnology. The internship includes an integrated presentation of didactic material, microscopic study, specimen preparation, clinical observation, cytogenetics, laboratory management and a research project.

The Detroit Medical Center University Laboratories offer a cytotechnology internship in affiliation with Oakland University. Acceptance into the internship program is competitive and based on grade point average, personal interview, and letters of recommendation.

Cytotechnology specialization professional course requirements

Students in the cytotechnology specialization must complete the following courses: BIO 305, 306, HS 401; MLS 312, 335, 336, 400, 401, 402, 423, 425, 430; and CT 401 and 402.

Specialization in histotechnology

Histotechnologists perform a variety of diagnostic and research procedures in the anatomic sciences. During the clinical internship, students will 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 preprofessional program. Application to the hospital-based internship is 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, 306; HS 401; MLS 312, 335, 336, 400, 401; 402; 423, 425, 430; HT 401, 402, 403 and 404.

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 pre-professional program. Application for 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 MLS students may apply to the following accredited Schools of Nuclear Medicine Technology: William Beaumont Hospital, Royal Oak, MI, and the Nuclear Medicine Institute, Findlay, OH. 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; HS 401; MLS 312, 400, 401, 423, 425; PHY 158; NMT 401, 402 and 403. (In addition to the NMT specialization requirements, the Nuclear Medicine Institute, Findlay, OH program requires CSE 110 and a speech/oral communications class).

Specialization in radiation therapy

Radiation therapy uses ionizing radiation to treat disease, especially cancer. Radiation therapists have the technical skills to plan, deliver and record a prescribed course of radiation. Their primary responsibility is to implement treatment programs prescribed by a radiation oncologist. Practice of this profession requires good judgment and compassion to provide appropriate therapy.

Students may apply for specialization standing in radiation therapy after completion of the pre-professional program. Students applying to the radiation therapy program must take the Allied Health Professions Admissions Test. Application is made during the winter semester of sophomore year. Students will be informed of acceptance in June and begin the two-year clinical program in August. Additional requirements for admission into William Beaumont Hospital's School of Radiation Therapy include a minimum 2.7 grade in all of the hospital's pre-requisite courses, a minimum of 100 volunteer hours, and a two hour site visit at both William Beaumont Hospital - Troy and William Beaumont Hospital - Royal Oak. See the school's web page: (beaumonthospitals.com/alliedhealth). Acceptance into the internship program is competitive and based on grade point average, personal interview, and letters of recommendation. The junior and senior years consist of didactic work and the supervised clinical experience in the Radiation Therapy Department at William Beaumont Hospital.

Radiation therapy specialization professional course requirements

Students in the radiation therapy specialization must complete the following courses: CSE 110; MTH 141; PHY 158; RT 301, 311, 315, 321, 323, 331, 333, 334, 335, 341, 342, 343, 344, 401, 402, 403, 404, 405 and 406.

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 specialization standing in Radiologic Technology after completing the preprofessional program. The first two years consist of the MLS core curriculum. Application to the hospital-based internship is made during the sophomore year (typically February 28 deadline for the July program and August 28 for the January program). **Acceptance into the internship program is competitive and is based on grade point average, personal interview and letters of recommendation. 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 and the supervised clinical experience in the Radiologic Technology Department at William Beaumont Hospital (beaumonthospitals.com/alliedhealth). This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

Radiologic technology specialization professional course requirements

Students in the radiologic technology specialization must complete the following courses: PHY 158; RAD 306, 311, 331, 333, 341, 344, 345, 401, 404, 407, 411, 433, 435, 441, 445, 450, 451, 452, 453, 454, 455, 456.

Pre-professional studies in medicine, dentistry, optometry, veterinary medicine and physician assistant

The Bachelor of Science degree in Biomedical Diagnostic and Therapeutic Sciences, with a concentration in medical laboratory sciences, provides excellent preparation for admission to professional schools. Different professional programs may require additional courses. Students should consult with the BDTS adviser. The other specializations in BDTS (HT, CT, NMT and RT) can also be used as a prerequisite for professional schools with appropriate course supplementation.

Course Offerings

The program 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*.

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: program permission.

CT 402 Clinical Internship (12)
Continuation of CT 401; microscopic study of non-gynecologic samples and fine needle aspirations; laboratory rotations; research project.
Prerequisite: program 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: program permission.

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: program permission.

HT 403 Immunohisto-Cytochemistry (5)
Didactic and practicum experience in basic and advanced procedures of fluorescent and enzymelabeled antibody techniques. Includes the preparation of tissues, staining with labeled antibodies and the use of the fluorescence microscope in clinical medicine and research.
Prerequisite: program permission.

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: program permission.

MEDICAL LABORATORY SCIENCES

MLS 201 Careers in Medical Laboratory Sciences (1)
An introductory seminar in medical laboratory sciences, including career opportunities in clinical settings (clinical laboratory science, histotechnology, cytotechnology, nuclear medicine technology, radiation therapy, 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: CHM 158.

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: BIO 207 or BIO 321; permission of instructor.

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: BIO 207 or BIO 321; MLS 226, MLS 423; permission of instructor.

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: BIO 207 or BIO 321 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: 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: MLS 226. Corequisite: 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: 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: BIO 111 and MLS 226. Corequisite: MLS 335.

MLS 400 Introduction to Molecular Genetics (2)
An introduction to the molecular nature of genes and their roles in controlling the function, development and inheritance of organisms. Basic gene structure and function, molecular anatomy of the gene, DNA replication, functional genomics and current methods will be covered. Emphasis on human/medical genetics. Offered fall semester.
Prerequisite: BIO 207 or 321. MLS 425 as prerequisite or corequisite.

MLS 401 Molecular Pathology (3)
Introduces the cause and diagnosis of disease on a molecular level. Illustrates the use of molecular pathology as used in recent diagnostic methodology. Offered winter semester.
Prerequisite: BIO 207or 321; MLS 400, 425.

MLS 402 Molecular Diagnostics (2)
Discussion of current molecular diagnostic techniques and procedures, including correlation with clinical conditions. Laboratory included. Offered winter semester.
Prerequisite: MLS 226.
Prerequisite or corequisite: MLS 401.

MLS 405 Special Topics (1, 2, 3 or 4)
May be repeated for additional credit. Prerequisite: 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: BIO 207 or BIO 321.

MLS 417 Hematology Laboratory (1)
To accompany MLS 416. Offered winter semester.
Prerequisite: MLS 226.

MLS 423 Clinical Immunology (3)
An introduction to the principles and practices of clinical immunology with emphasis on cellular and molecular interactions, using an experimental approach. The course will include the normal immune responses and clinical conditions, including autoimmunity, immunodeficiency, hypersensitivity disorders and transplant rejection. Offered winter semester.
Prerequisite: BIO 207 or 321 and MLS 425.

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 extra cellular signal transduction. Offered fall and summer semesters.
Prerequisite: BIO 207; CHM 158.

MLS 430 Clinical Microbiology (3)
Provide a background in basic clinical microbiology, including the morphology, cultivation, identification and control of microorganisms. Offered summer and fall semesters.
Prerequisite: BIO 111 and 207 or BIO 321.

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: MLS 226. Corequisite: 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: MLS 430.

MLS 440 Clinical Correlation (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: MLS 313, 314, 327, 416 and 430.

MLS 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 a writing intensive course in the major. Prerequisite for writing intensive: completion of the university writing foundation requirement*. Identical with AHS 450 and HS 450.
Prerequisite: WRT 160 and senior standing.

MLS 451 Clinical Education (6)
Prerequisite: permission of instructor.

MLS 490 Individual Laboratory Work (2, 3, 4)
May be repeated for additional credit.
Prerequisite: 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: permission of instructor.

MLS 498 Directed Study (1-4)
Student initiated and problem-oriented directed study focusing on medical laboratory science issues. May be repeated for additional credit.
Prerequisite: 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: Program permission.

NMT 402 Clinical Internship II (12)
Continuation of NMT 401.

NMT 403 Clinical Internship III (8)
Continuation of NMT 402.

RADIATION THERAPY

RT 301 Introduction to Radiation Therapy (2)
An introduction to the activities and responsibilities of the radiation therapist including orientation to school and hospital policies, career insights, overview of techniques used in radiation therapy, and essentials of procedures needed in the care of radiation oncology patients. Medical terminology specific to the field is reviewed.
Prerequisite: RT specialization standing.

RT 311 Patient Care and Management (2)
Patient care techniques with emphasis on those necessary in the care and examination of oncology patients, especially those receiving radiation therapy. Psychological considerations, management of emergencies, infection control, examination, medical-surgical asepsis and tube management will be presented.
Prerequisite: RT specialization standing.

RT 315 Seminar in Radiation Oncology (3)
Literature search of faculty approved topics related to radiation oncology with written analysis of case studies on various malignancies. Oral presentation required.
Prerequisite: RT specialization standing.

RT 321 Radiographic Imaging and Anatomy (2)
Fundamentals of radiographic exposure techniques including production of radiation, rectification, quality of radiation and film processing. Topographic and cross-sectional anatomy and identification of anatomic structures as seen by various imaging modalities will be introduced.
Prerequisite: BIO 205 and RT specialization standing.

RT 323 Radiobiology (2)
Biophysical principles of ionizing radiation and effects on living tissue with emphasis on radio sensitivity and response to radiation, including a review of cell biology. An introduction to hyperthermia as a treatment modality illustrating the cellular response to heat, methods of heating and interactions of heat and radiation.
Prerequisite: RT 331 and RT specialization standing.

RT 331 Radiation Physics (3)
Fundamental principles of atomic structure and matter, production and properties of radiation, interactions of photons, particulate radiation, measurements of radiation and measurement of absorbed dose are covered. Discussions will include different radiation therapy treatment units.
Prerequisite: PHY 102 and RT specialization standing.

RT 333 Clinical Dosimetry (3)
Basic concepts of clinical dosimetry including use of isodose charts, treatment planning, field defining apparatus and wedges. Different methods of dosimetric calculations are described. Emphasis is on conformal therapy, MLC dosimetry and three dimensional treatment planning.
Prerequisite: RT 331 and RT specialization standing.

RT 334 Brachytherapy and Radiation Protection (3)
Principles of radiation safety including need for radiation protection, detection and measurement of radiation, regulatory agencies and regulations, personnel monitoring and practical radiation protection are presented. Also includes types and storage of brachytherapy sources, use and care of applicators, leak testing and surveys and accident procedures.
Prerequisite: RT specialization standing.

RT 335 Quality Assurance (2)
Principles and applications of a comprehensive quality assurance program in radiation therapy. Topics include relevant tasks, frequency of performance and acceptable limits. Laboratory exercises included.
Prerequisite: RT specialization standing.

RT 341 Oncologic Pathology (3)
Disease concepts including: inflammatory process, neoplasia, types of growth, causative factors, behavior of tumors and staging procedures. Tumors originating from specific sites and respective pathology will be discussed.
Prerequisite: BIO 207 and RT specialization standing.

RT 342 Technical Radiation Oncology I (3)
Provides an understanding of radiation therapy equipment including techniques used in treatment delivery. Tumor localization utilizing simulators, beam directing devices and other technical considerations involved are presented. The role of the radiation therapist in disease management will be discussed.
Prerequisite: PHY 102, BIO 205 and BIO 207, RT specialization standing.

RT 343 Technical Radiation Oncology II (3)
Continuation of Technical Radiation Oncology I.
Prerequisite: RT 342 and RT specialization standing.

RT 344 Clinical Radiation Oncology (2)
An overview of radiation oncology and its role in medicine as compared with surgery and chemotherapy as treatment modalities. Discussion of tumors including locations, etiology, detection, staging and grading, and treatment. Oncologic emergencies are presented.
Prerequisite: RT 341 and RT 342 and RT specialization standing.

RT 401 Clinical Practicum (4)
Supervised experience in the practice of radiation therapy technology. The student therapist will observe and participate in simulation procedures and delivery of radiation treatment to actual patients in the Radiation Oncology Department of William Beaumont Hospital. Patient care and management will be covered.
Prerequisite: program permission.

RT 402 Clinical Practicum (4)
Continuation of RT 401.
Prerequisite: program permission.

RT 403 Clinical Practicum (4)
Continuation of RT 402.
Prerequisite: program permission.

RT 404 Clinical Practicum (4)
Continuation of RT 403.
Prerequisite: program permission.

RT 405 Clinical Practicum (4)
Continuation of RT 404.
Prerequisite: program permission.

RT 406 Clinical Practicum (4)
Continuation of RT 405.
Prerequisite: program permission.

RADIOLOGIC TECHNOLOGY

RAD 301 Introduction to Radiologic Technology (1)
An introduction to safety, pathlore, and compliance in the Radiology Department. Also included is an orientation to radiation protection (methods to limit patient and operator exposure, such as collimation, shielding and personal monitoring devices).
Prerequisite: RAD specialization standing.

RAD 306 Human Structure and Function (4)
(Anatomy and Physiology) – this class reviews the body systems and their functions in detail. Cross-sectional anatomy is included.
Prerequisite: RAD specialization standing.

RAD 311 Methods of Patient Care I (2)
An overview of basic nursing procedures such as sterile technique, cardiopulmonary resuscitation and life-saving first aid, 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. CPR certification occurs in second quarter.
Prerequisite: RAD specialization standing.

RAD 331 Radiologic Physics (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: RAD specialization standing.

RAD 333 Principles of Radiographic Exposure I (3)
This course covers the fundamentals of setting proper exposure factors; the relationship between current (milliamperage), voltage and time; the factors, which affect radiographic quality.
Prerequisite: RAD specialization standing.

RAD 341 Radiographic Procedures I (4)
An introduction to radiographic positioning, terminology and procedures. The student learns which view demonstrates a particular body part best, and the proper way to set up for various radiographic studies. Positioning laboratory, chest, abdomen, IVU's OR procedure, GI's, extremities, spine, boney thorax, pediatric radiography and angiography are included.
Prerequisite: RAD specialization standing.

RAD 344 Radiographic Imaging (2)
An introduction to the different recording devices used in diagnostic radiology. Specialized imaging modalities are discussed including CT, MRI and Ultrasound. Devices such as fluoroscopy, cine and video recorders are reviewed in detail. Also, closed circuit TV and TV camera pick-up tubes, image processing methods, PACS, computers in radiology and digital radiography included.
Prerequisite: RAD specialization standing.

RAD 345 Radiographic Image Evaluation I (2)
An in-depth study of the radiographic images. Films are critiqued in terms of proper positioning, radiographic quality, and exposure, as well as pathology. Student presentations and discussions are major components of this course.
Prerequisite: RAD specialization standing.

RAD 401 Pathology (1)
A survey of medical diseases. The names, causes and treatments for a majority of the diseases related to radiology are covered.
Prerequisite: RAD specialization standing.

RAD 404 Quality Assurance (1)
This course covers the basics of quality control testing processes, including sensitometry.
Prerequisite: RAD specialization standing.

RAD 407 Radiation Biology (2)
The basic interactions of x-rays with matter (tissue). Genetic and somatic damage is examined in detail.
Prerequisite: RAD specialization standing.

RAD 411 Methods of Patient Care II (2)
The preparation and administration of all contrast agents is discussed. Each agent is described in terms of usage, viscosity, atomic number, chemical composition, etc. Both ionic and non-ionic materials are included. An introduction to EKG and pharmacology unit covering action and use of select drugs and routes of administration are included.
Prerequisite: RAD specialization standing.

RAD 433 Principles of Radiographic Exposure II (2)
Exploration into tube heat, fluoroscopy, technique chart formulation and review. The Developmental Tests are completed during this class.
Prerequisite: RAD specialization standing.

RAD 435 Radiation Protection (1)
This course investigates the interaction of radiation with matter and the means to measure and protect from radiation exposure.
Prerequisite: RAD specialization standing.

RAD 441 Radiographic Procedures II (3)
Topics include all skull/head studies as in Radiographic Procedures I. Specialty projections and trauma head work are included.
Prerequisite: RAD specialization standing.

RAD 445 Radiographic Image Evaluation II (1)
Students present routine radiographic studies, evaluating quality aspects of each radiograph.
Prerequisite: RAD specialization standing.

RAD 450 Senior Seminar (1)
This course addresses various topics including test taking skills, health-care career pathways, current trends in health-care, professional development, and employment application/interview skills.
Prerequisite: RAD specialization standing.

RAD 451 Clinical Practicum I (3)
Supervised experience in the practice of radiologic technology. The student will observe and participate in simulation procedures and delivery of radiologic procedure to actual patients in the Radiography Department of William Beaumont Hospital.
Prerequisite: program permission.

RAD 452 Clinical Practicum II (3)
Continuation of RAD 451
Prerequisite: program permission.

RAD 453 Clinical Practicum III (4)
Continuation of RAD 452
Prerequisite: program permission.

RAD 454 Clinical Practicum IV (4)
Continuation of RAD 453
Prerequisite: program permission.

RAD 455 Clinical Practicum V (4)
Continuation of RAD 454
Prerequisite: program permission.

RAD 456 Clinical Practicum VI (5)
Continuation of RAD 455
Prerequisite: program permission.

Nutrition and Health Minor

A minor in Nutrition and Health is available to students in any degree program. A minimum GPA of 2.00 is required in each course for the minor. A total number of 22 credits are required for the minor including: NH 300, Organic and Biochemistry for Nutrition Sciences; NH 301, Human Nutrition and Health; NH 311, Contemporary Topics in Nutrition; NH 330, Introduction to Food Science; NH 331, Introduction to Food Science Lab; NH 340, Nutrition and Lifecycles; also required are four hours of the following electives: NH 401, Sports Nutrition; NH 402, Community Nutrition; NH 403, Herbs, Supplements & Nutrition; NH 404, Nutrition and Culture; NH 405, Eating Disorders; NH 446, Food Toxicology.

Nutrition and Health

NH 300 Organic and Biochemistry for Nutrition Sciences (4)
This course integrates concepts in general, organic and biochemistry as a platform for understanding the relationship between chemical compounds, human physiology and nutrition. Topics will include, but are not limited to, identification, structure and physical properties of organic compounds, carbohydrate, lipid, and protein metabolism, enzymes and protein synthesis.

NH 301 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 AHS 301 and HS 301. NH 300 strongly recommended as prerequisite or corequisite.

NH 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. Summer semester in odd-numbered years. Identical to HS 311.
Prerequisite: HS 301 or permission of instructor.

NH 330 Introduction to Food Science (3)
Introductory exploration of foods and food science, including the principles and procedure of food selection and preparation.
Prerequisite: NH 300, 301.
Corequisite: NH 331.

NH 331 Introduction to Food Science Lab (1)
Introductory exploration of foods and food science, including the principles and procedure of food selection and preparation.
Prerequisite: NH 300, 301.
Corequisite: NH 330.

NH 340 Nutrition and Lifecycles (4)
This course is designed to develop an awareness of dietary standards and factors affecting dietary patterns, to promote 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: NH 300, 301 or instructor permission.

NH 401 Sports Nutrition (2)
Course is directed toward the specific roles of energy and nutrients in physical performance. Topics include ergogenic aids, myths associated with nutritional management of the athlete, appropriate strategies for weight change, unique dietary concerns for females, endurance, vegetarian athletes, hydration. Carbohydrate, protein, and fat metabolism during exercise will be explored.
Prerequisite: NH 301, 330, 331.

NH 402 Community Nutrition (2 to 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.
Prerequisite: NH 301, 330, 331.

NH 403 Herbs, Supplements and Nutrition (2)
Students will be prepared to 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.
Prerequisite: NH 301, 330, 331.

NH 404 Nutrition and Culture (2)
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. Prerequisite: NH 301, NH 330, NH 331.

NH 405 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.
Prerequisite: NH 301, 330, 331.

NH 446 Food Toxicology (2)
Introduction to the basic principles of Food and Nutritional Toxicology. Overview of concepts of the dose –response relationships, absorption, metabolism, and elimination of toxicants. Chemicals in foods such as hormones, pollutants, pesticides, food additives, bacterial and fungal toxins will be discussed. USDA Food laws and regulations analyzed.
Prerequisite: NH 301, 330, 331.

Occupational Safety and Health

Director: *Charles W. McGlothlin, Jr.*

Associate professor: *Richard J. Rozek*

Assistant professor: *Aaron Bird*

Special Instructor: *Charles W. McGlothlin, Jr.*

Adjunct associate professor*: John M. Hoffmann*

Adjunct assistant professor: *Thomas W. Schenk, Darryl C. Hill*

Adjunct instructors: *Patrick R. Frazee, Laurie A. Rudolph, Scott Tolmie, David N. Andrews, N. Saiz*

Occupational safety and health is a specified branch of the health professions focusing on the workplace environment and on the behavior of workers. Protecting America's workers 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. Occupational safety and health professionals strive to identify, evaluate and eliminate or control hazards which expose people, property or the environment to danger or harm. This professional is concerned with prevention of injuries or occupational diseases that may occur with the interaction between the worker and the chemical, physical, biological, ergonomic, mechanical, electrical and other forces in the work environment. In addition, the safety professional is involved in the prevention of accidents that could cause property or environmental damage.

The Occupational Safety and Health (OSH) 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 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 occupational safety and health. Internship placements are coordinated by the program director and include manufacturing, insurance, construction, service, consulting, labor and government organizations.

Graduates of the program will find employment opportunities within a wide variety of occupations to include: health care facilities; industrial firms; construction companies; insurance companies; professional associations; local, state, and federal government; and labor organizations. Oakland's proximity to many of the national's leading industrial companies provides a wealth of experiential learning opportunities throughout the OSH curriculum, particularly for the internship placements. These world class companies also offer employment opportunities to the OSH graduate.

Program educational objectives

The Occupational Safety and Health 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. **This degree program is accredited by the Applied Science Accreditation Commission of ABET**. The educational objectives of the Occupational Safety and Health program are to prepare graduates to become effective safety and health professionals. During their first five years after graduate, graduates will demonstrate abilities to:

1. anticipate, identify, evaluate, and control workplace hazardous conditions and practices;
2. develop effective safe operating procedures and comprehensive safety and health 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 occupational safety and health performance;
6. conduct themselves in a professional and ethical manner, and to
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 Occupational Safety and Health program at Oakland University will demonstrate ability to:

1. enter the occupational safety and health 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;
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 safety and health; and
11. appreciate the need to continue professional development through graduate study, professional certification, and to become lifelong learners.

Requirements for the B.S. degree with a major in occupational safety and health

Students seeking the Bachelor of Science degree with a major in Occupational Safety and Health 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 #3 below satisfy general education requirements and Occupational Safety and Health degree requirements. See courses marked with "*".
2. Complete the university U.S. diversity requirement. For Occupational Safety and Health majors, this requirement is satisfied by completing HS 302.
3. Complete the occupational safety and health required courses: BIO 104, CHM 104, CHM 201, STA 225*, PHY 120*, HS 201*, 302; PSY 100*; ENV 354*, MGT 110*, HRD 320, HRD 322, PHL 103*, and WRT 382.
4. Complete the major courses: OSH 100, 141, 225, 235, 331, 332, 333, 334, 335, 336, 441, 442, 443, 444, 445, 446 and 499. (OSH 499 may only be taken with permission of the OSH program director).
5. Complete all math and science prerequisite courses within the Occupational Safety and Health curriculum and all Occupational Safety and Health required OSH courses with grades of 2.0 or higher.

Minor in occupational safety and health

A minor in Occupational Safety and Health is available to complement other majors in the School of Health Sciences and in other programs, such as environmental health, human resource development, engineering, biology or chemistry. A minimum of 30 credit hours is required for a minor in Occupational Safety and Health. Courses required for the minor include: OSH 100, 141, 225, 235, 331, 332, 334, 335, 336, 441 and 442. In addition, an internship is recommended to enhance job placement.

Grade point policy

Occupational Safety and Health majors must achieve minimum course grades of 2.0 in science core prerequisite courses and in required OSH courses. A final course grade below 2.0 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.

Course Offerings

The program 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*.

OSH 100 Introduction to Occupational Safety and Health (1)
Introduces students to various occupational environments through site visits and/or guest speakers and provides first hand experience of how health and safety professional function in the workplace.
Prerequiste: none.

OSH 115 Safety and Health at Work (2)
A general introduction to safety and health 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.

OSH 141 Quantitative Methods for Occupational Safety and Health (4)
Application of frequently applied equations, statistical procedures, and analytical tools used for occupational safety and health assessments.
Prerequisite: none.

OSH 225 Occupational Safety and Health 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.
Prerequisite: none.

OSH 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.
Prerequisite: none.

OSH 245 Work Processes and Practices (3)
In depth study of practices and processes used in workplaces. Course is split between in-class sessions and on-site visits to workplaces.
Prerequisite: none.

OSH 331 Safety and Health Engineering and Technology (3)
Safety principles and practices in the industrial environment. Engineering and technical information are discussed.
Prerequisite: none.

OSH 332 Safety and Health Administration and Programs (3)
Management aspects of the industrial environment. Administration techniques, governmental regulations, and programs for health and safety management are discussed.
Prerequisite: none.

OSH 333 Fire Prevention and Protection (3)
Fundamentals of flame generation and propagation, fire behavior in open and confined spaces, theory of fire fighting methods, fire detection and suppression, property loss control and life safety.
Prerequisite: OSH 331 or 332 or instructor permission.

OSH 334 Industrial Environment I: Evaluations (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: CHM 201, OSH 141, PHY 120.
Corequisite: OSH 336.

OSH 335 Industrial Environment II: Controls (3)
Principles and practices on the control aspects (engineering, administrative, and personal protection) of chemical, physical and biological hazards in the industrial environment.
Prerequisite: CHM 201, PHY 120, and OSH 141.

OSH 336 Industrial Environment Lab (1)
Quantitative monitoring techniques for measuring and evaluating environmental stress in the Industrial workplace.
Corequisite: OSH 334.

OSH 342 Advanced Quantitative Methods for Occupational Safety and Health (4)
Provides in-depth application of equations, statistical procedures, and analytical tools for occupational safety and health 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: OSH 141 with a minimum gpa of 2.0 or higher.

OSH 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: OSH 335 and 336.

OSH 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: OSH 335 and 336.

OSH 434 Occupational Ventilation (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: OSH 335, 336 and 342.

OSH 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: OSH 335, 336 and 342.

OSH 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: OSH 332 or instructor permission.

OSH 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.

OSH 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: OSH 331 or instructor permission.

OSH 444 Environmental Standards (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.

OSH 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.
Prerequisite: BIO 104 or (WHP 300 and WHP 305) or (BIO 205 and BIO 207).
Cross-listed with WHP 420.

OSH 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 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: CHM 201 or CHM 234.

OSH 480 Special Topics in Occupational Safety and Health (2, 3, or 4)
Instructor initiated research and investigation into current topics of special interest in the career field of occupational safety and health.
Prerequisite: program director permission.

OSH 490 Directed Study and Research in Occupational Safety and Health (1, 2, 3 or 4)
Student initiated and problem-oriented independent research and study focusing on occupational safety and health issues. May be repeated for additional credit. Graded S/U.
Prerequisite: program director permission.

OSH 499 Occupational Safety and Health Internship (4)
An experiential learning capstone in Occupational Safety and Health 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 OSH courses. Graded S/U. *Satisfies the university general education requirement for the capstone experience*.
Prerequisite: program director permission.

Physical Therapy
(See requirements for the B.S. in Health Sciences with a pre-physical therapy concentration)

Director: *Kristine A. Thompson*

Associate professors: *Douglas Creighton*, *Jacqueline Drouin, Melodie Kondratek, John R. Krauss*

Assistant professors: *Deborah Doherty, Sara Maher, Marie–Eve Pepin, Susan E. Saliga*

Special instructors: *Christine Stiller, Kristine A. Thompson*

Instructor: *R. Elizabeth Black*

Consulting professors: *Olaf Evjenth, Beth Marcoux*

Clinical assistant professors: *Cathy A. Larson*, *Pamela Lemerand*, *Frederick D. Pociask, Gretchen D. Reeves, Christopher Wilson*

Senior clinical instructors: *Sara Arena*, *David A. Tomsich*

Clinical instructors: *Henry D. Boutros, Helene M. Graham, Pamela S. Knickerbocker, Gregory Kopp, Kathleen Jakubiak Kovacek, Peter R. Kovacek, Jeffrey Placzek, Janet Siedel, Angela C. Strong, Kim Schwartz, Jody Tomasic*

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).*

Course Offerings

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: Junior standing.

PT 321 Basic Athletic Training (2)
Course directed to competitive sports and the recognition and immediate care of athletic injuries. Evaluative and treatment procedures and techniques are presented and practiced. Identical with EXS 321.
Prerequisite: BIO 205, 207; EXS 350.

PT 490 Directed Study (1, 2, 3 or 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: program permission.

Wellness, Health Promotion, and Injury Prevention (WHP) Program

Director: *Stafford C. Rorke*

Associate professors: *Stafford C. Rorke, Patricia A. Wren*

Assistant professor: *Florence J. Dallo*

Clinical instructors: *Terry Dibble, Teri Kolar, Garnett Payne, Charles Rinehart, Lucille Sternburgh*

The wellness, health promotion, and injury prevention (WHP) program is accredited with the National Wellness Institute (NWI). Graduates of the WHP degree achieving an overall GPA of 2.75 may register as certified wellness practitioners (CWP) with the NWI. WHP students are expected to epitomize a complete wellness lifestyle. Both the WHP degree and WHP minor are not recommended for individuals who cannot fulfill the ethical expectations to be a good role model in the health promotion field. The WHP program functions to address growing societal needs for specialists in diverse allied health fields. Graduates find employment in a variety of commercial, industrial, government, hospital, community and non-profit organizations. Their professional skills are utilized in health enhancement, disease prevention, injury prevention, health education/promotion, health and fitness, corporate and worksite 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.* All focus areas for the major in wellness, health promotion and injury prevention can be completed within 128 credit hours. However, students taking the pre-professional

focus should note that additional credit hours will 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.

The WHP degree prepares students for entry to graduate school in diverse fields such as public health, health education, psychology, exercise science, human resource development and selected professional medical fields. Currently, approximately 40% of WHP graduates continue to graduate school.

Admission to the major in wellness, health promotion and injury prevention: Pre-WHP standing

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, PHL 103, PSY 100, MGT 110, STA 225, WRT 160, plus the general education courses in Arts, Language and Literature.
2. Complete EXS 204, EXS 215, and WHP 350, plus HS 201 and HS 302; each course with a minimum grade of 2.5.
3. Complete PSY 250 with a 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 point 4 below satisfy both general education requirements, and wellness, health promotion, and injury prevention degree requirements. See courses marked *.
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, as follows: WHP 300, 305, 310, 350, 360, 401, 402, 460.
4. Complete courses that complement the core curriculum, as follows: MGT 110*, EXS 204, EXS 207, EXS 215, HS 201*, HS 441, HS 302*, HRD 310, PHL 103*, PSY 100*, PSY 250, PSY 338, STA 225*. (*Courses that also satisfy the university general education requirement).
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 40 credits for the psychology major as detailed below. Note that 12 credits of psychology courses are satisfied in the WHP core curriculum, (See point #4 above). Therefore, in this focus students must complete a minimum of an additional 28 credit hours of psychology, plus 4 credit hours of WHP electives for a total of 32 credit hours. Students must declare the additional major in psychology by completing an additional major form, and must attain a minimum GPA of 2.00 over all psychology courses. Required courses: PSY 100, PSY 250, PSY 251 with a minimum grade of 2.0; plus 8 credits from PSY 215, PSY 225, PSY 235, PSY 245; plus one course from three of the following groups: 1) PSY 311, 316, 317, 318, 319, 415; 2) PSY 321, 322, 323, 327, 425; 3) PSY 330, 333, 337, 338, 339, 435; 4) PSY 341,

342, 343, 344, 445; plus 8 elective hours of psychology credits at any level, except PSY 399; plus 4 credit hours of WHP electives.

b. General health promotion focus: PSY 225; plus a minimum of 4 hours from PSY 215, PSY 235, PSY 245; plus 4 hours from one of the following groups: 1) Basic processes: PSY 311, 316, 317, 318, 319; 2) Developmental: PSY 321, 322, 323, 327; 3) Personality and individual differences: PSY 341, 342, 343, 344; plus an additional 20 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: WHP 315, 461, 462; PSY 318, plus an additional 16 elective credit hours from: AN 310; HRD 351; PSY 316, 333, 337, 339, 342; SOC 328, 337, 402 or from the general elective list below. 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*, 402*, 423*; HS 450; WHP 380 plus a minimum of 12 credit hours from: ACC 200; COM 303, 304; ECN 367; HRD 303, 307*, 351, 362, 363, 365, 367, 440, 472*; ORG 330; PS 359; and any of the following courses: BIO 104, 205, 206, 207, 300, 351, 423; ENV 308, 355; EXS 103,105, 304, 306, 321, 350, 405, 406, 410, 425, 435, 445, 450; HS/NH 301, 331, 401; MLS 423, 430; PHL 102, 318; PHY 131; WHP 208, 210, 325, 340, 370, 405, 410, 420, 461, 462, 493, or any other course approved by the program director. Note: together with HRD 310 in the WHP core, courses marked "*" satisfy the HRD minor in training and development.

e. Injury prevention focus: WHP 208, 311, 410, 420, 431; PSY 344 or HRD 336; plus a minimum of 12 elective hours from: EXS 103, 321, 350, 403, 405 or 410, 465; or any other courses pre-approved by the program director that have direct application to prevention of injury.

f. Exercise science focus: EXS 103, 105, 304, 306, 350 (prerequisites BIO 205, 207; and 111 or 113 must be taken), plus 8 elective credit hours from the general elective list below. Students may choose a course not on the elective lists if preapproved by the program director as pertinent to the field of exercise science.

g. Pre-health professional study: Students must complete a further 32 credit hours of pre-approved course-work in preparation for entry to a recognized health profession program. *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.*

h. Nutrition and health focus: NH 300, NH 301, NH 311, NH 330, NH 331, NH 340; plus four hours from the following electives; NH 401, NH 402, NH 403, NH 404, NH 405, NH 446; plus, a minimum of an additional 10 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 305).
7. Preferred electives list: WHP 208, 210, 311, 315, 325, 340, 370, 380, 405, 410, 420, 431, 461, 462; EXS 103, 203, 360, 403, 405, 470 and/or 475; HS 450; OSH 115. Courses offering certificates are highly recommended as electives, for example WHP 208 and WHP 311. General elective list: BIO 104, 111, 300, 351, 423; ENV 308, 355, 356, 364: EXS 105, 303, 304, 321, 350, 406, 410, 425, 435, 445, 450; HRD 304, 306, 308, 323, 351, 363, 364, 372, 401; HS 311, 331, 401; MLS 423; PHY 131, 318; plus any course on the general, complementary medicine, health promotion interventions, injury prevention, exercise science, nutrition, or pre-professional focus group lists above. Other elective options in biology, business, anthropology, health sciences, 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.

Grade point policy

To graduate with the WHP major an overall grade point average (GPA) of 2.5 is required in School of Health Sciences (SHS) courses; therefore, a grade at or above 2.5 is required in all SHS courses applied to the major. In addition, admission to selected core WHP courses requires that designated prerequisite course/s be obtained with a 2.5. A student completing a required course with a grade below 2.5, or having their cumulative grade point average in School of Health Sciences courses fall below 2.5 will automatically be considered to be on probation in the program. A subsequent course below 2.5 will necessitate repeat of the course; or a change of major; a decision reached in the best interests of the student, and following consultation with the WHP Program Director or designated representative. 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 points are outlined in the WHP Student Handbook.

Code of ethics

Given that 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 ethical expectation to be a good role model in the health promotion field.

Minor in wellness, health promotion and injury prevention

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. Each of the following courses required for the minor must be obtained with a minimum grade of 2.5: HS 201, 302; WHP 300, 305, 310, 350; EXS 204. Students contemplating this minor should be aware that prerequisites are rigorously enforced in WHP, resulting in a strict sequence of courses requiring several semesters to complete the WHP minor. The code of ethics also applies to students in the minor.

Course Offerings

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

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: EXS 207.

WHP 210 Water Safety and Lifeguard Training (2)
Fundamentals of water safety and lifeguard instruction are covered, leading to certification. Students are provided with the knowledge and skills to prevent, recognize, and respond to water-based emergencies, and care for related injuries.
Prerequisite: EXS 207; ability to swim 400/m using breaststroke and front crawl stroke

WHP 300 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 the corequisite lab course, WHP 305, students learn health risk appraisal and physical assessment techniques that lead to the design of intervention strategies for health enhancement, and the prevention of disease.

Prerequisite for Majors: completion of all required core courses with expected grade/GPA of 2.5 except WHP 401 and 402, plus program director permission.
Prerequisite for Minors: completion of all courses required for the minor at a minimum grade of 2.5 plus program director permission.
Corequisite: WHP 305.

WHP 305 Laboratory in Assessment and Interventions (4)
This corequisite laboratory course complements WHP 300 by preparing students for the rigors of implementing health risk appraisals and physical assessment techniques. Design of intervention strategies for lifestyle and health enhancement, and disease prevention are covered.
Prerequisite for Majors: completion of all required core courses with expected grade/GPA of 2.5 except WHP 401 and 402, program director permission.
Prerequisite for Minors: completion of all courses required for the minor at a minimum grade of 2.5 plus program director permission.
Corequisite: WHP 300.

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 either the natural science and technology or the social science knowledge exploration area.*
Prerequisite HS 302.

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: 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, and financial aspects of women's health issues. Includes an historical look at women's health in the US, the roles that 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: HS 201.

WHP 350 Health Program Implementation (4)
Needs analysis, planning, design, development, equipment, choice, delivery, and evaluation of health and wellness program implementation are emphasized. Students are introduced to topics including organizational development, program, human and financial management, staff selection and development, marketing, facility maintenance, health, safety and legal issues.
Prerequisite: HS 302, PSY 250, and WRT 160.

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.
Prerequisites: 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: 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: WHP 360.

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: 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. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: completion of WHP 401 or taken concurrently with WHP 401 and program director permission.

WHP 405 Special Topics (1-4)
An advanced course involving study of current topics in the practical application of wellness principles. Topics vary. May be repeated for additional credit.
Prerequisite: program director permission.

WHP 410 Advanced Injury Prevention, Control and Safety Promotion (1-4)
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: 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: 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: permission of instructor.

WHP 460 Evaluation of Health and Wellness Programs (4)
Systematic examination of how health promotion, wellness practitioners and researchers deal with the issue of measuring program effectiveness. Emphasis on the importance and difficulty of producing good evaluation data by studying problems of reliability and validity and exploring approaches that maximize the extent to which data reflect program values.
Prerequisite: PSY 250; STA 225; WHP 300, 305, 310, 350, 360.

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: HS 441 or 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: HS 441 or 451.

WHP 493 Directed Study and Research in Wellness, Health Promotion and Injury Prevention (1-4)
Independent problem-directed study and research focusing on wellness, health promotion and injury prevention issues. May be repeated for additional credit.
Prerequisite: program director permission.

THE HONORS COLLEGE

112 E. VANDENBERG HALL (248) 370-4450

Interim Director: *Gary Shepherd, Ph.D.*

Council: *Susan Awbrey, Senior Associate Provost (ad hoc member); Brian Connery, English; Andrea Kozak, Psychology; Barbara Mabee, Modern Languages and Literature; Mohammed Zohdy, Computer Science and Engineering; Chaundra Scott, Education; Keith Berven, Biology; Ravi Parameswaran, School of Business; Susan Wood, Art History; two sophomore, two junior, and two senior Honors College students*

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. Application forms are available online or at The Honors College office.

Courses with the HC prefix are open only to students who have been accepted into The Honors College. Please visit our website at www.oakland.edu/hc 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, 202, 204, 206, 207 or 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.
6. The student must complete a thesis. (see Honors College website for deadlines).

Note: Honors College requirements partially replace university general education requirements and replace distribution 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 over one semester or a six week period during the summer.

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 whose Honors College thesis proposals have been approved can apply for an HC Thesis Research Grant to support the completion of their HC Thesis.

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.

Course Offerings

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* and *on The Honors College website*.

The following list of courses comprises The Honors College core.

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 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 or 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 390 Introduction to 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: Minimum of three HC 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

520 O'Dowd Hall (248) 370-4131

Interim Director: *Brian A. Connery*

International Education Council: *David Archbold, Susan Awbrey, Jan Baker, Gary Barber, Brian Connery, Barbara Mabee, Gary Moore, Carolyn O'Mahony, Nancy Schmitz*

The mission of the Office of International Education is to encourage Oakland University students and faculty to study, conduct research, and teach in international settings, and to facilitate and encourage the presence of foreign students and faculty on our campus. The Office seeks to increase and intensify the University's involvement in global education through agreements with universities and other appropriate institutions around the world. It also serves as a resource 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.

Course Offerings

The following courses are designated as international education courses and may be taken to earn credit for study abroad. Those courses marked by an asterisk (*) directly generate credit from study abroad programs with which Oakland is associated. All others are independent study, or internship courses in which students may receive school or departmental credit for projects undertaken while traveling, working or studying abroad. In addition, all courses under the 399, Field Experience, rubric may be used for the same purpose. These projects must be individually arranged with and supervised by an instructor, whose permission is required to take the course in which the project will be done. The graduate level courses that appear below are open to undergraduate students with instructor permission.

International Education Courses:

College of Arts & Sciences: AH 395, 396; ENG 200, 300; HST 390; LIN 490; IS 300, 361-364*, 365-368*, 370-373*, 390, 470-473, 490; ML 399; MUS 499; THA 490; DAN 490; PHL 390; PS 390, 490; COM 380, 480; AN 399, 480; ENV 390; GRM 114, 115, 214, 215; FRH 114, 115, 214, 215; IT 114, 115, 214, 215; JPN 114, 115, 214, 215; SPN 114, 115, 214, 215, 316, 318, 408; ML 290, 390, 391, 392, 399 (with permission of instructor).

School of Business: MGT 490, 526 (see graduate catalog), 690 (see graduate catalog)

School of Education and Human Services: EED 455; EST 570 (see graduate catalog), RDG 590 (see graduate catalog); and SE 590 (see graduate catalog)

School of Health Sciences: EXS 493; MLS 498; OSH 490; PT 490; WHP 370

School of Engineering and Computer Science: ME 494; CSE 494

The Honors College: HC 490

SCHOOL OF NURSING

428 O'DOWD HALL (248) 370-4253
Fax: (248) 370-4279

Interim Dean: *Diane Norris*

Interim Associate Dean: *Darlene Schott-Baer*

Office of the Dean: *Sherry Abernathy, assistant dean; Pamela Marin, assistant dean; Patrina Carper, academic adviser; Brian Harbac, simulation specialist; Deleana Hill, information technology specialist; Amy Johnson, administrative project coordinator; Cheryl McPherson, business manager/financial analyst; Estella Nicholson, coordinator of academic services; Jennifer Milnar, special projects assistant; Sarah Mullin, academic adviser; Colette O'Connor, director of development; April Thomas-Powell, academic adviser; Alison Wagner, events coordinator; Kristina White-Aaron, academic adviser*

Professors emerita: *Justine Speer, Diane Wilson, Carol Zenas*

Professors: *F. Darlene Schott-Baer*

Endowed adjunct professor: *Ann Whall*

Associate professors: *Karen Dunn*, *Barbara Harrison, Dorothy Hawthorne-Burdine*, *Frances Jackson, Suha Kridli, Anne Mitchell, Gary Moore, Sarah Newton, Barbara Penprase, Cheryl Riley-Doucet*

Assistant professors: *Carrie Abele, Marisa Ferrari, Margaret Glembocki, Claudia Grobbel, Margaret Harris, Laura Pittiglio*

Visiting professor: *Jenn-tser Pan*

Visiting instructors: *Janith Beres, Kelly Berishaj, Ami Bhatt, Chesanny Butler, Ellen Gajewski, Deana Hays, JoAnn Kapa, Sandra Miller, Heather Soucey, Deborah Tierney*

Special instructors: *Ronald Piscotty*, *Stephanie Vallie, Rosalind Woodson*

Adjunct assistant professors: *Anne Hranchook, Lisa Mileto, John Nagelhout*

Adjust full-time instructors*: Kimberly Holka, Marilyn Mouradjian, Lynda Poly-Droulanrd, Vicki Varbedian*

Adjunct instructors*: Andrea Bittinger, Laurie Heline, John Roebuck*

Director of nursing labs*: Patricia Ketcham*

Board of Visitors

The Board of Visitors for the School of Nursing is composed of community leaders in the greater Detroit area. It assists the school in developing goals and objectives, curricular design, as well as clinical and research programs that meet the rapidly changing requirements of the health care field. Board members consult on such matters as facilities, equipment requirements, special topics and long-range planning.

Members of the Board of Visitors are:
Marie Adam, Senior Medical Operations & Compliance, Chrysler LLC
Maggie Allesee, Counselor
Wayne W. Bradley, President & CEO, Detroit Community Health Connection, Inc.
Kathy Coburn, V.P. Patient Care Services and CNO, St. Joseph Mercy Oakland
Lisa DeMoss, ESQ, Faculty, Thomas Cooley Law School
Kay Douglas, President, Douglas Marketing Group
Val Gokenbach, Vice President, Chief Nurse Executive, William Beaumont Hospital, Royal Oak
Nancy Hakala, Director and Manager, Wright & Filippis
Petra Hurt, Affiliate Clinical Coordinator/Assistant Director, U of D Mercy

Gregory Jamian, President & CEO, Americare Medical, Incorporated
Theresa Jones, MSN, RN
David Martin, President & CEO, Health Care News Alliance
Barbara R. Medvec, Senior Vice President & CNO, Oakwood Healthcare Inc.
Patricia Natale, Vice President Patient Care Services, Detroit Receiving Hospital
Laurine S. Parmely, Assistant General Counsel, Blue Cross Blue Shield of Michigan
Margo Riza, Rehabilitation Services Representative, Special Tree Neuro Skills Center
Kathleen Ryan, RN
Karen Standfest, Vice President of Patient Care & CNO, Henry Ford Macomb Hospital
Nancy Susick, Vice President of Nursing, William Beaumont Hospital, Troy
Kathleen VanWagoner, Chief Nurse Executive, Crittenton Hospital Medical Center
Christine Zambricki, CRNA, RN

Programs Offered

Undergraduate program

The School of Nursing offers instruction leading to the Bachelor of Science in Nursing (B.S.N.) degree. The course of study combines general education in the humanities and the social, biological and natural sciences with education in the theory and practice of nursing. Graduates are eligible to take the NCLEX-RN licensure examination. Full and part-time program sequences are provided for baccalaureate students. An accelerated Second- Degree B.S.N. and a R.N.-B.S.N. Degree Completion Sequence are also available.

Undergraduate program objectives

Based on program goals, relevant student learning outcomes were developed related to each program goal. By the end of the program, students will:

1. Demonstrate critical thinking through synthesis of knowledge from the humanities and the sciences in the application of the nursing process to the independent and collaborative practice of professional nursing.
2. Demonstrate effective communication skills and proficiency in information management, including standardized nursing languages, and technology in delivering safe, effective and cost-efficient professional nursing care based on current best practice.
3. Apply ethically and legally grounded clinical judgments supported by research in making decisions about the provision of professional nursing care.
4. Demonstrate adherence to the essentials of the AACN when delivering nursing care across the life span to diverse client populations in a wide variety of settings.
5. Acquire the foundation for continued study at the graduate level.

Graduate program

The School of Nursing offers programs of study leading to the Master's of Science in Nursing (M.S.N.) degree and a Doctor of Nursing Practice (D.N.P.) degree. The M.S.N. program prepares nurses to be adult/gerontology nurse practitioners, adult health clinical nurse specialists, clinical nurse leaders, family nurse practitioners, nurse anesthetists and nurse educators. Post-master's certificate programs are also offered in these specialty areas. A R.N.-M.S.N. program is available for diploma or associate degree prepared registered nurses who wish to follow an accelerated plan of study in all M.S.N. specialty programs except nurse anesthesia. For more information, see the *Oakland University Graduate Catalog.*

Admission

Students wishing to enter the pre-nursing program should have completed four years of mathematics, one year of college preparatory biology and one year of chemistry, each with a grade of 2.8, in addition to presenting an academic grade point average of at least 3.20 and an ACT minimum composite score of 20 or SAT equivalent.

Admission to the School of Nursing occurs in one of three ways: (1) admission after completion of prerequisite courses as space permits, (2) as a second degree student into an accelerated program of study as space permits, or (3) as a registered nurse into a degree completion sequence. The School of Nursing encourages and actively seeks male and other minority applicants. Individuals with disabilities will be considered for admission to the School of Nursing on an individual basis related to their ability to meet clinical practice requirements and core performance standards. Students are admitted to the School of Nursing on a competitive basis. In addition to the admission requirements listed, the applicant must be in good standing in the university (minimum overall GPA of 2.00). Completion of minimum requirements does not guarantee admission. Openings are filled with applicants best qualified to succeed in the nursing program. Preference for admission is given to students who have completed five or more pre-nursing courses (excluding MTH 061) at Oakland University. Pre-nursing courses which are satisfied by Advanced Placement (AP) equivalent courses will be counted toward the preference for admission. Please refer to OU Advanced Placement (AP) Policies for approved equivalents (oakland.edu/appolicies).

Admission after the freshman year

Students who are admitted to the pre-nursing major upon entry to Oakland University or upon changing their major are eligible to apply to the School of Nursing once the following requirements are met:

1. Complete BIO 111, 121; CHM 104, 201 and PSY 100 with a minimum grade of 2.8 in each course and a minimum overall GPA of 3.20.
2. Complete one philosophy course (PHL 101, 102, 103, 107, 204, 205, or 206) 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. (This requirement is waived for students who receive a score of 18 or higher on the mathematics subsection of the American College Test (ACT) or who have taken an Oakland University placement test and have placed into MTH 062 or higher.)
5. Applicants who have been dismissed from a nursing program at another institution, or have two grades below 2.5 in nursing courses from another institution, must submit a statement of explanation that includes current status as a nursing student and have their application reviewed prior to consideration for admission to a School of Nursing undergraduate program.

Admission into the accelerated second-degree B.S.N. program

Admission to Oakland University as a pre-accelerated second degree B.S.N. program student is required in order to be eligible for admission to the School of Nursing in the Accelerated Second Degree B.S.N. program. Admission into the Accelerated Second Degree B.S.N. program is competitive and based on G.P.A., goal statement and interview. Completion of minimum requirements does not guarantee admission.

Students who meet the criteria in items 1-4 listed below are eligible for conditional admission with full admission pending completion of items 5-7 listed below:

1. Adherence to the Oakland University undergraduate admission requirements for a second degree student.
2. Minimum overall GPA of 3.2, with a minimum grade of 2.8 in each of the following courses: BIO 111, BIO 121, CHM 104, CHM 201 and PSY 100. Completion of Philosophy (PHL 101, 102, 103, 107, 204, 205 or 206) with a minimum grade of 2.8 and Math 061 with a minimum grade of 3.2 (this requirement is waived for students who receive a score of 18 or higher on the mathematics subsection of the American College Test (ACT) or who have taken an Oakland University placement test and have placed into MTH 062 or higher).
3. A 500-1,000 word written goal statement.
4. A faculty interview may be required.
5. Completion of PSY 225 and BIO 307, with a grade of 2.5 or higher. (Must be taken prior to the program start date.)

6. NRS 221, NRS 227 and NRS 308 with a grade of 2.5 or higher. (Must be taken prior to the program start date.)
7. Applicants who have been dismissed from a nursing program at another institution, or have two grades below 2.5 in nursing courses from another institution, must submit a statement of explanation that includes current status as a nursing student and have their application reviewed prior to consideration for admission to a School of Nursing undergraduate program.

Admission clinical requirements

Admission to the nursing program is contingent upon meeting all clinical requirements. These requirements are subject to change. Specific details will be provided with the letter of admission. Requirements include:

1. Submission of a completed health assessment, including inoculation for tetanus; skin testing or chest x-ray for tuberculosis; proof of immunity to rubella, rubeola, mumps, varicella and Hepatitis B (or formal refusal of Hepatitis B vaccination).
2. Meeting minimum physical, cognitive and psychosocial technical standards for clinical/field and laboratory experiences (see core performance standards). Students with disabilities who have questions about their ability to meet these standards are encouraged to contact the Office of Disability Support Services, 106 North Foundation Hall, (248) 370-3266.
3. Documented completion of an approved CPR course.

The following are required by clinical agencies where students are placed for clinical experience:

1. Criminal background check.
2. Urine drug screen.

Students are responsible for any costs associated with the requirements described above. Students accepted to the nursing program must submit proof of all the above requirements by the published deadline date (per program plan). All requirements must remain in effect throughout the academic year. Students who have not provided necessary documentation by the published deadline dates will not be allowed to enroll in clinical nursing courses. NOTE: Students must maintain their own health insurance for illness or injury. Clinical agencies are not required to provide free treatment for students and will bill individuals for use of their emergency or employee health services.

Advising

The School of Nursing Advising Office is located in 444 O'Dowd Hall, (248) 370-4253. It is recommended that students schedule an advising appointment during the freshman/pre-nursing year(s) to review degree requirements and develop a plan of study. The plan of study is a timetable of courses to be taken and assures progress toward satisfying degree requirements. In addition, students are required to attend a School of Nursing orientation prior to beginning the nursing program.

Transfer policy

Programs offered by the School of Nursing are designed to meet the Commission on Collegiate Nursing Education (CCNE) accreditation criteria as well as to reflect the Oakland University philosophy of education. Records of students transferring to Oakland University from other academic institutions are evaluated and transfer credit is granted as appropriate. Once matriculated at Oakland, students are expected to complete all remaining nursing course work for the degree at Oakland. See Transfer student information in this catalog for additional information about the university transfer policies, including transfer of credit from community colleges.

Grade for transfer courses do not appear on the Oakland University transcript. However, for purposes of admission to the School of Nursing, grades for pre-nursing courses taken at other institutions are included in the pre-nursing GPA. Letter grades are converted as follows: A = 4.0, A- = 3.7, B+ = 3.3, B = 3.0.

On-leave status

Students can request on-leave status for personal or academic reasons in the School of Nursing for a period of up to one year. Their return to the program is contingent upon availability of space. Students who return to the nursing program from on-leave status must comply with all School of Nursing policies in effect when they return and must submit their request to return to active status three months before the beginning of the term for which the student seeks to be reactivated.

Policies and procedures

Once admitted to the nursing program, students should consult the School of Nursing Undergraduate Student Handbook for detailed information on program policies and procedures.

Requirements for the bachelor of science in nursing degree

To earn the Bachelor of Science in Nursing degree, students must complete a minimum of 125 credits and meet the following requirements:

1. Complete the University general education requirements.
2. Complete all credits and courses as listed in the following plans of study or in the degree completion sequence for registered nurses.
3. Achieve a grade of at least 2.5 in all nursing courses, BIO 307 and PSY 225.
4. Complete at least 32 credits in courses at or above the 300-level.

Plan of study for admission after the freshman year

A part-time plan of study is available upon request.

Pre-nursing Semester 1

*CHM 104	Introduction to Chemical Principles	(4)
*BIO 111	Biology	(4)
*WRT 150	Composition I	(4)
*PSY 100	Foundations of Contemporary Psychology	(4)
	Total Credits	16

Pre-nursing Semester 2

*CHM 201	Organic and Biological Chemistry	(4)
*BIO 121	Clinical Anatomy and Physiology	(5)
*WRT 160	Composition II	(4)
PHL 101, 102, 103, 107, 204, 205, 206 (select one)		(4)
Total Credits		17

Nursing Semester 1

NRS 206	Introduction to Professional Nursing Practice	(2)
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)
**PSY 225	Introduction to Life-Span Developmental Psychology	(4)
	Total Credits	17

Nursing Semester 2

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)
	Total Credits	16

Nursing Semester 3

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)
	Total Credits	15

Nursing Semester 4

NRS 337	Nursing Care of Children: Clinical	(2)
NRS 338	Nursing Care of Childbearing Family: Clinical	(2)
NRS 339	Nursing Care of Children	(3)
NRS 349	Nursing Care of the Childbearing Family	(3)
NRS 354	Nursing Leadership and Health Care Issues	(2)
	General Education	(4)
	Total Credits	16

Nursing Semester 5

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)
	Total Credits	14

Nursing Semester 6

NRS 472/473	Nursing Synthesis/ Clinical	(1/5)
	General Education	(4)
	General Education	(4)
	Total Credits	14

Total B.S.N.: 125 credits
* Courses used in the calculation of the pre-nursing grade point average.
** PSY 225 and BIO 307 may be taken prior to or during Nursing Semester 1 and 2.

Note: Completion of MTH 061 with a minimum grade of 3.2 is required for admission to the School of Nursing. This requirement is waived for students who receive a score of 18 or higher on the mathematics portion of the American College Test (ACT). General education courses may be taken in any semester throughout the program. Students are encouraged to consult with an academic adviser for assistance in selecting general education courses that may be used to fulfill more than one degree requirement.

Plan of study for accelerated second-degree B.S.N.

Students who are admitted to the Accelerated Second Degree program will follow the Plan of Study shown below:

Semester 1

NRS 280	Introduction to Professional Nursing Practice	(4)
NRS 281	Nursing Practice Concepts Lab	(2)
NRS 282/283	Health Assessment Across the Life Span/Lab	(3/1)
NRS 286	Basic Clinical Competencies	(2)
NRS 380/381	Comprehensive Adult Nursing I/Clinical	(3/2)
	Total Credits	17

Semester 2

NRS 382/383	Nursing Care of the Childbearing Family/ Clinical	(3/2)
NRS 384/385	Nursing Care of Children/ Clinical	(3/2)
NRS 480/481	Comprehensive Adult Nursing II/Clinical	(3/2)
NRS 482	Research Basis of Nursing Practice	(2)
	Total Credits	17

Semester 3

NRS 386	Mental Health Nursing	(4)
NRS 483	Community Nursing	(4)
NRS 484	Nursing Leadership and Health Care Issues	(2)
NRS 485	Nursing Synthesis Clinical	(5)
NRS 486	Nursing Synthesis	(1)
	Total Credits	16

TOTAL: 50 Credits

Clinical placements

Nursing students are placed in a variety of settings throughout their academic program. The School of Nursing provides students with a range of experiences with diverse populations, organizations and agencies. Cooperating agencies are located in both urban and suburban settings throughout metropolitan Detroit and southeastern Michigan. Each student is responsible for providing his or her own transportation for all clinical experiences.

Annual clinical requirements

The requirements listed below must be renewed annually and remain in effect throughout the academic year. By the published deadline each year, students in the nursing program must supply written validation of skin testing for tuberculosis and/or chest x-ray:

The following are required by clinical agencies where students are placed for clinical experience:

1. Criminal background check.
2. Urine drug screen.
3. Documented completion of an approved CPR course.

Students are responsible for any costs associated with the requirements described above. Students accepted to the nursing program must submit proof of all the above requirements by the published deadline date (per program plan). All requirements must remain in effect throughout the academic year. Students who have not provided necessary documentation by the published deadline dates will not be allowed to enroll in clinical nursing courses. NOTE: Students must maintain their own health insurance for illness or injury. Clinical agencies are not required to provide free treatment for students and will bill individuals for use of their emergency or employee health services.

Bachelor of science in nursing completion sequence for registered nurses

The School of Nursing offers registered nurses an opportunity to earn a Bachelor of Science in Nursing degree. The purposes, philosophy and outcome expectations for the B.S.N. program are the same for basic and registered nurse students. However, course objectives and teaching methodologies take into account the professional and life experiences of R.N. students.

Students who have satisfactorily completed a diploma or associate degree program in nursing and who possess a valid R.N. license may apply for admission to the B.S.N. program. A cumulative GPA of 2.50 or better is required for admission to the R.N.-B.S.N. degree completion sequence.

Registered nurses with a GPA below 2.50 may be admitted to the University under pre- R.N.-B.S.N. status and change to R.N.-B.S.N. status upon completion of a minimum of 12 credits (applicable to the nursing program) at Oakland University with a GPA of 2.50 or higher.

Registered nurses must complete all credits and/or courses in the degree program.

Completion may be achieved in the following manner:

1. Graduates from an accredited diploma program will be granted the equivalent of 32 nursing credits through a course competency process. This process includes:
   a. Successful completion of the NCLEX-RN examination.
   b. Evidence of a valid RN license.
   c. Registration for competency credits.
2. 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 categories. In addition, a maximum of 19 nursing credits will be granted through a course competency process. This process includes:
   a. Successful completion of the NCLEX-RN examination.
   b. Evidence of a valid RN license.
   c. Registration for competency credits.
3. Required Nursing courses for the R.N.-B.S.N. program:

NRS 221	Nursing Informatics	2
NRS 310	Conceptual Foundations of Nursing Practice	4
NRS 340	Health Promotion in the Community	4
NRS 355	Nursing Leadership & Health Care Issues	3
NRS 426	Community Nursing	4
NRS 450	Nursing Care of Populations with Health Disparities	4
NRS 452	Research Basis of Nursing Practice	3
NRS 474	Nursing Synthesis	4
NRS 475	Nursing Synthesis Clinical	4
Total required nursing credits:		32

*For students admitted to the R.N.-M.S.N. program NRS 355 and NRS 450 are replaced by:

NRS 515	Vulnerable Populations and Social Issues	4
NRS 516	Health Policy, Finance and Nursing Management	3

4. Nursing assessment skills must be validated before registering for NRS 474/475 using one of the following methods:
   a. completion of a health assessment course equivalent to OU SON undergraduate health assessment course
      OR
   b. letter of verification from current (or most recent) supervisor validating assessment skills AND practice as an RN performing health assessment skills within the last three years

A unique plan of study is prepared for each student by an academic adviser in the School of Nursing to assure that all Oakland University degree requirements and major requirements are satisfied.

Master of science in nursing completion sequence for registered nurses

The R.N.-M.S.N. program is selective and designed for high achieving Registered Nurses who want to pursue graduate education in Adult/Gerontological Nurse Practitioner, Adult Health Clinical Nurse Specialist, Clinical Nurse Leadership, Family Nurse Practitioner, or Nursing Education after they complete the requirements for the undergraduate degree. Students who wish to enter this program are first admitted to the R.N.-B.S.N. program. Once admitted to the R.N.-M.S.N. program students can take two graduate level courses (NRS 515 and NRS 516) and pay undergraduate tuition rates for these graduate credits. Before students can take NRS 515 and 516 they must request a change in program status from the nursing program academic adviser and be admitted to the R.N.-M.S.N. program. The request for a program transfer can be submitted at any point after admission to the R.N.-B.S.N. program when an applicant meets the minimum requirements for a program transfer. NRS 515 and 516 replace

NRS 355 and 450 in the R.N.-B.S.N. program and graduate courses NRS 521 and 610 will be waived once a student begins course work toward the M.S.N. degree.

To receive approval for the change in status to the R.N.-M.S.N. program graduates from an associate degree in nursing program (A.D.N.) must have achieved an A.D.N. cumulative GPA of 3.5 or higher. Students who do not have an A.D.N. program GPA above 3.5 can request a change in status to the R.N.-M.S.N. program after maintaining an Oakland University undergraduate GPA of 3.0 or better in 12 credits of required non-nursing courses in the R.N.-B.S.N. program. These 12 credits must include NRS 310.

Early admission to M.S.N. program: Once a student in the R.N.-M.S.N. program attains undergraduate senior level status (minimum of 91 credits) the student is able to formally apply for admission to the Adult/Gerontological Nurse Practitioner, Adult Health Clinical Nurse Specialist, Clinical Nurse Leadership, Family Nurse Practitioner, or Nursing Education. The Nurse Anesthesia program is not open to this early admission opportunity. With the exception of the B.S.N. degree, all other graduate level M.S.N. admission requirements must be fully met for early admission status. When a student is officially accepted into the M.S.N. program, he/she will receive a graduate program Plan of Study outlining the course sequence to complete the M.S.N. program. Once the B.S.N. degree is posted the B.S.N. graduate who has been granted early M.S.N. admission status officially becomes a graduate student and is subject to graduate tuition rates and School of Nursing graduate level policies.

Core performance standards

All nursing students must demonstrate the following competencies during the entire academic program:

Competency standard

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.

Additional Information

Accreditation and program review

The Oakland University School of Nursing is accredited by the Commission on Collegiate Nursing Education (CCNE) and is approved by the Michigan State Board of Nursing. The RN-BSN Degree Completion Sequence is fully accredited as an online program by the Higher Learning Commission of the North Central Association.

National Black Student Nurses Association (N.B.S.N.A.)

The purpose of the association is to give Oakland University nursing students an opportunity to promote unity among minorities and other students by providing a support network for pre-nursing students as well as current nursing students. B.S.N.A. allows members to increase their networking skills and ability to work with others while educating and informing the community about health risks that affect minorities.

Sigma Theta Tau-Theta Psi Chapter

The local chapter of Sigma Theta Tau International Honor Society in Nursing was chartered in April 1986 at Oakland University. Each year Oakland University students who are eligible are invited to become members of this national honor society. Candidates for membership are selected on the basis of superior scholastic achievement, academic integrity and evidence of professional leadership potential.

Student Nurses Association of Oakland University (SNAOU)

Nursing students are eligible for and encouraged to become members of the Student Nurses Association of Oakland University. The organization gives OU nursing students an opportunity to receive information and support from other nursing students and increase networking skills. It also gives members the ability to work with others, participate in community and political events, and have an opportunity to communicate with OU School of Nursing administrators.

Qualification for R.N. licensure

Licensure is granted by the state of Michigan. Requirements for licensure include successful completion of a state-approved educational program and satisfactory performance on the licensing examination prescribed by the state of Michigan. Upon registration of the license, a nurse is known as a registered nurse (R.N.). Licensure in one state entitles a qualified holder to seek licensure by endorsement in other states. As part of the pre-licensure screening policy, the Michigan Board of Nursing will obtain criminal conviction history. Additionally, new licensure applicants with previous substance abuse convictions may not be prohibited from licensure; however, the circumstances of the conviction will be reviewed and may result in investigation and/or referral to the Health Professional Recovery Program (Legal and Professional Regulation of Nursing Practice in Michigan, 1995).

Continuing education

Continuing professional education is offered by the School of Nursing in order to meet the life-long learning needs of professional nurses. Specialized contract programs can be provided in order to meet the unique professional staff development needs of employers in the health care setting, business and industry, government and other settings. These programs are individually tailored to meet the specific workplace needs of professionals and employers. Programs and courses are offered for university credit or noncredit. When noncredit programs and courses are offered, they carry the Continuing Education Unit (CEU).

Course Offerings

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

NRS 206 Introduction to Professional Nursing Practice (2)
This course introduces students to the profession of nursing and to basic therapeutic interventions and skills used in professional nursing practice.
Prerequisite: 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: admission to the School of Nursing.

NRS 208 Health Assessment (3)
This course introduces students to the process of health assessment. Prerequisite: admission to the School of Nursing.
Prerequisite or corequisite: PSY 225, NRS 206.
Corequisite: NRS 209.

NRS 209 Health Assessment Laboratory (1)
This course involves application in the laboratory setting of principles related to health assessment.
Prerequisite: admission to the School of Nursing.
Corequisite: NRS 208.

NRS 210 Nursing Therapeutics II (2)
This course involves theory and application in the laboratory setting of basic and more applied theoretical principles and therapeutic interventions used in professional nursing practice.
Prerequisite: NRS 206, 207, 208, 209.
Corequisite: NRS 302, 303.
Prerequisite or Corequisite: NRS 220, 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 or Corequisite: NRS 206, 207, 208, 209, 216.

NRS 216 Health Promotion I (3)
This course explores wellness and health promotion from a nursing perspective during preschool through adolescence.
Prerequisite or corequisite: PSY 225, NRS 206, 208, 252.

NRS 220 Nutrition (2)
This course explores the importance of nutrition to professional nursing practice.
Prerequisite: admission to the School of Nursing or permission of instructor.

NRS 221 Nursing Informatics (2)
This course involves the application of healthcare informatics' topics, tools, and techniques appropriate to professional nursing practice.

NRS 227 Pathophysiology (3)
This course explores biological and physiological deviations that can occur throughout the life span.
Prerequisite: BIO 121, admission to the School of Nursing or permission of instructor.
Prerequisite or corequisite: BIO 307.

NRS 252 Scientific Foundations of Professional Nursing Practice (2)
The course introduces students to the scientific basis of professional nursing practice.
Prerequisite or corequisite: NRS 206.

NRS 260 Topics in Nursing (1-12)
Presents special topics or areas of nursing that students may wish to develop. Clinical experiences in a health care facility may be required.
Prerequisite: 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 accelerated second degree program. *Satisfies the university general education requirement in U.S. diversity. 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: admission to the Accelerated Second Degree Program.
Corequisite: 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 accelerated second degree program.
Corequisite: NRS 280.

NRS 282 Health Assessment Across the Life Span (3)
This course focuses on concepts, skills and attitudes fundamental to professional nursing practice within a framework of clinical decision-making. Importance of therapeutic communication and the assessment of cultural, socioeconomic and diversity aspects of healthcare will be emphasized.
Corequisite: 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 accelerated second degree program.
Corequisite: NRS 282.

NRS 286 Basic Clinical Competencies (2)
This course involves application of basic theoretical principles and therapeutic nursing interventions in clinical settings appropriate to adults and the elderly. This course is reserved for students admitted to the accelerated second degree program.
Corequisite: NRS 280, 380, 381.

NRS 302 Health Promotion II (3)
This course explores a nursing perspective related to wellness and health promotion, cultural diversity, vulnerable populations and the National Health Care Objectives for the adult. *Satisfies the university general education requirement in U.S. diversity.*
Prerequisite: NRS 216, 252.
Corequisite: NRS 303.
Prerequisite or corequisite: NRS 220, 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: NRS 213, 220, 227, 252.
Corequisite: NRS 302.

NRS 304 Human Sexuality (4)
Students will apply knowledge from previous general education courses, specifically from the Foundations, Exploration and/or Diversity areas, to the topic of human sexuality. Overall, 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. Prerequisites for knowledge application: completion of the general education requirement in the natural science and technology or social science knowledge exploration areas, not both.*
Prerequisite: 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: admission to the School of Nursing and NRS 227.

NRS 310 Conceptual Foundations of Practice (4)
This course examines the conceptual foundations of professional nursing practice. This course is reserved for students admitted to the RN-BSN program.
Prerequisite: admission to RN-BSN program.

NRS 326 Acute Health Needs I (5)
This course integrates theory, rationale, and specific nursing interventions for acutely ill clients of all ages and their families, as well as nursing care of childbearing families.
Prerequisite: Completion of SON program plan for sophomore year.
Prerequisite or corequisite: NRS 308.
Corequisite: NRS 336 or 337 or 338 (one of three).

NRS 328 Acute Health Needs II (4)
This course continues content begun in NRS 326.
Prerequisite: NRS 326.
Prerequisite or corequisite: NRS 336 or 337 or 338 (two of three).

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 or corequisite: NRS 308.
Corequisite: 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 or corequisite: NRS 308.
Corequisite: NRS 329 or 326 or 328.

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 or corequisite: NRS 308.
Corequisite: NRS 326 or 328 or 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 or corequisite: NRS 308.
Corequisite: NRS 326 or 328 or 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 or corequisite: NRS 308.
Corequisite: 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 RN-BSN program.
Prerequisite or corequisite: NRS 310.

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 or corequisite: NRS 308.
Corequisite: 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: NRS 326 or 329.
Prerequisite or corequisite: NRS 452.

NRS 355 Nursing Leadership and Health Care Issues (3 or 4)
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 RN-BSN program.
Prerequisite or corequisite: NRS 310.

NRS 360 Topics in Nursing (1-12)
Presents special topics or areas of nursing that students may wish to develop. Clinical experience in health care facility may be required.
Prerequisite: admission to the School of Nursing or permission of instructor.

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 accelerated second degree program.
Prerequisite: NRS 281, 282, 283.
Corequisite: NRS 381.

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 accelerated second degree program.
Corequisite: 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 accelerated second degree program.
Prerequisite: NRS 380, 381.
Corequisite: NRS 383.

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 accelerated second degree program.
Corequisite: 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 accelerated second degree program.
Prerequisite: NRS 380, 381.
Corequisite: NRS 385.

NRS 385 Nursing 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 accelerated second degree program.
Corequisite: NRS 384.

NRS 386 Mental Health Nursing (3 or 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 accelerated second degree program.
Prerequisite: NRS 480, 481.
Corequisite: NRS 387.

NRS 387 Community/Mental Health Nursing Clinical (2)
Selected inpatient and/or outpatient facilities will be utilized for clinical practice experiences related to mental health nursing.
Corequisite: NRS 386, NRS 483.

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 RN-BSN program.
Prerequisite or corequisite: NRS 310.

NRS 428 Community Nursing (3)
This course focuses on the professional nurse's role in the community.
Prerequisite: NRS 328 or 349 and NRS 452.

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 RN-BSN program. *Satisfies the university general education requirement in U.S. diversity.*
Prerequisite or corequisite: NRS 310.

NRS 452 Research Basis of Nursing Practice (3 or 4)
This course focuses on the research process and evidence-based practice as they relate to professional nursing. This course is reserved for students admitted to the Basic or the RN-BSN programs. *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.*
Basic BSN.
Prerequisite: NRS 252. RN-BSN.
Prerequisite or corequisite: NRS 310.

NRS 460 Topics in Nursing (2-6)
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: completion of School of Nursing program plan for nursing year two.

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: NRS 328 or 329 and NRS 452.
Corequisite: NRS 471, NRS 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: NRS 354, 452.
Corequisite: NRS 470.

NRS 472 Nursing Synthesis (1)
This course analyzes issues impacting health care delivery and professional nursing practice.
Prerequisite: NRS 428, 470, 471, 477.
Corequisite: NRS 473.

NRS 473 Nursing Synthesis Clinical (5)
This course is the capstone clinical experience for the nursing curriculum. *Satisfies the university general education requirement for the capstone experience*.
Prerequisite: NRS 428, 470, 471, 477.
Corequisite: 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 RN-BSN program.
Prerequisite: NRS 310.
Prerequisite or corequisite: NRS 340, 355, 426, 450, 452.

NRS 475 Nursing Synthesis Clinical (1 to 5)
This course is the capstone clinical experience for the nursing curriculum. This course is reserved for students admitted to the RN-BSN program. *Satisfies the university general education requirement for the capstone experience.*
Prerequisite: NRS 310.
Prerequisite or Corequisite: NRS 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: NRS 354, 452.
Corequisite: 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 accelerated second degree program.
Prerequisite: NRS 380, 381.
Corequisite: 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 accelerated second degree program.
Corequisite: NRS 480.

NRS 482 Research Basis of Nursing Practice (2)
This course focuses on the research process and evidence-based practice as they relate to professional nursing. This course is reserved for students admitted to the accelerated second degree program.
Prerequisite: NRS 280.

NRS 483 Community Nursing (3 or 4)
This course focuses on the professional nurse's role in the community. This course is reserved for students admitted to the accelerated second degree program.
Prerequisite: NRS 480, 481.
Corequisite: NRS 387.

NRS 484 Nursing and Healthcare Systems Leadership (2)
The focus of this course is on the examination and application of concepts and practices necessary for successful healthcare and nursing systems leadership.
Prerequisite: NRS 482.

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 accelerated second degree program. *Satisfies the university general education requirement for the capstone experience*.
Corequisite: 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 accelerated second degree program.
Corequisite: NRS 484, 485.

NRS 490 Independent Study (1-12)
Engages students in individual research, directed readings or group study under the supervision of a faculty member.

The following courses are graduate level courses open to undergraduate students who have been admitted to the R.N.-M.S.N. program.

NRS 515 Vulnerable Populations and Social Issues (4)
This course will focus on the concept of vulnerability and the role of nursing in meeting the health care needs of vulnerable populations. Developmental, social, cultural, racial, socioeconomic, political and health care issues that predispose people to vulnerability, outcomes of vulnerability, and the cycle of vulnerability will be emphasized.
Prerequisite: NRS 310 and admission to R.N.-M.S.N. program. Replaces NRS 450 in R.N.-B.S.N. program.

NRS 516 Health Policy, Finance and Nursing Management (4)
Outcomes, reimbursement, consumer expectations and quality standards and their impact on advanced nursing practice in managing and delegating patient care will be explored. Health care policy and finance is explored in relation to government, reimbursement, quality, systems, consumers and professional and advanced nursing practice levels. Replaces NRS 355 in R.N.-B.S.N. program.
Prerequisite: NRS 310 and admission to R.N.-M.S.N. program.

UNIVERSITY FACULTY

This list reflects faculty appointments effective August 15, 2011, as they were available on the publication date.

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	Foundations		
	Explorations		
	Integration		
	Capstone		
	Writing Intensive – Gen. Ed.		
	Writing Intensive – Major		

Total Credits

Writing Foundations	
	Writing and Rhetoric 150
	Writing and Rhetoric 160

U.S. Diversity	
	Course Taken

College or School Requirements			
Date	**Field Category**	**Course Taken**	**Credits**

Total credits

Major:	

Major Requirements

Date	**Category**	**Course Taken**	**Credits**

Total credits